

**FINAL**

Office of River Protection  
Consent Decree 08-5085-FVS

Monthly Summary Report

May 2015

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

**May 2015 (Monthly Summary Report/Project Earned Value Management System reflects March 2015 information)**

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## CD Milestone Statistics/Status

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2014</b>				
D-00B-01	Complete Retrieval of Tank Waste from 10 SSTs in WMA-C	09/30/2014		Past Due
D-00B-02	Advise Ecology of the Nine SSTs Waste will be Retrieved by 2022	09/30/2014	08/24/2011	Completed
<b>Fiscal Year 2015</b>				
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014		Past Due
D-00A-19	Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2014		Past Due

Ecology = Washington State Department of Ecology.

LAW = low-activity waste.

PT = pretreatment.

SST = single-shell tank.

WMA-C = C Farm waste management area.

### Consent Decree Reports/Reviews

**D-00C-01 series, Submit to State of Washington and State of Oregon Semi-Annual Report,** Due: Semiannually – January 31 and July 31 of each year, Status: Ongoing. The January 2015 Semiannual Report was issued on January 29, 2015, via U.S. Department of Energy (DOE), Office of River Protection (ORP) letter 15-ECD-0006.

**D-00C-02 series, Submit to State of Washington and State of Oregon Monthly Summary Reports,** Due: End of each month, Status: Ongoing.

**D-006-00-A, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree,** Held: December 10, 2013, Status: Completed.

**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,** Sent: November 8, 2013, Status: Completed.

## Single-Shell Tank Retrieval Program

Milestone	Title	Due Date	Status
D-00B-01	Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C	September 30, 2014	Past Due
D-00B-01A through D-00B-01J	Submit Tank Retrieval Complete Certification	One year following each retrieved tank retrieval completion report <sup>a</sup>	Ongoing
D-00B-02	Advise Ecology of the Nine SSTs from which Waste Will Be Retrieved by 2022	September 30, 2014	Completed
D-00B-03	Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02	December 31, 2017	Ongoing
D-00B-04	Complete Retrieval of Tank Wastes from the nine SSTs in D-00B-02	September 30, 2022	Ongoing
D-00B-04A through D-00B-04I	Submit Tank Retrieval Complete Certification	TBD	TBD

- a. Pursuant to Section IV-B-5 of the Consent Decree, the U.S. Department of Energy (DOE) must submit to the Washington State Department of Ecology (Ecology) a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the Consent Decree. Completed for Single-Shell Tank (SST) C-104 on March 21, 2013, via DOE Office of River Protection (ORP) letter 13-TF-0018. Completed for SST C-108 on May 1, 2013, via ORP letter 13-TF-0025. Completed for SST C-109 on June 4, 2013, via ORP letter 13-TF-0037. Completed for SST C-110 on January 29, 2014, via ORP letter 14-TF-0007. Completed for SST C-107 on September 30, 2014, via ORP letter 14-TF-0114. Completed for SST C-112 on September 30, 2014, via ORP letter 14-TF-0115.

TBD = to be determined.  
WMA-C = C Farm waste management area.

### Significant Past Accomplishments:

- Continued retrieval operations at C-102, initiated high pressure water operations, in conjunction with Modified Sluicing. Sluicer #1 has a leak in the supernate line within the sluicer box, this line has been isolated for use with supernate flow.
- Completed field activities for the replacement of the plugged slurry distributor at AN-106.
- Hose-in-hose transfer line replacement between POR209 and POR104 transfer structures is ongoing. Connection of the new hose-in-hose transfer lines at POR209 and POR104 are complete. Leak check of these connections was completed satisfactorily and done concurrently with the leak check of the new slurry distributor.
- Continued fabrication of new replacement sluicers for C-111. One of the two new sluicers has been delivered to WRPS.
- Continued with activities to replace the failed C-111 slurry pump. The work package for removal of the failed pump is in development.

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

- Complete retrieval C-102 using second technology.

- Finish a C-105 systems engineering evaluation of the current retrieval method; will potentially need a revised tank waste retrieval work plan.
- Continue retrieval of C-105 using Mobile Arm Retrieval System – Vacuum (MARS-V)
- Begin startup of hard heel retrieval in C-111 using high-pressure water, with caustic/water dissolution available.

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

**Tank Waste Retrieval Work Plan Status**

<b>Tank</b>	<b>TWRWP</b>	<b>Expected Revisions</b>	<b>First Retrieval Technology</b>	<b>Second Technology</b>	<b>Third Technology</b>
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Complete	MARS-V	MARS-V-High Pressure Water Spray	-
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S-High Pressure Water Spray	Water Dissolution
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = Extended Reach Sluicing System.

MARS = Mobile Arm Retrieval System.

S = sluicing.

TWRWP = Tank Waste Retrieval Work Plan.

V = vacuum.

**Significant Accomplishments:**

None.

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

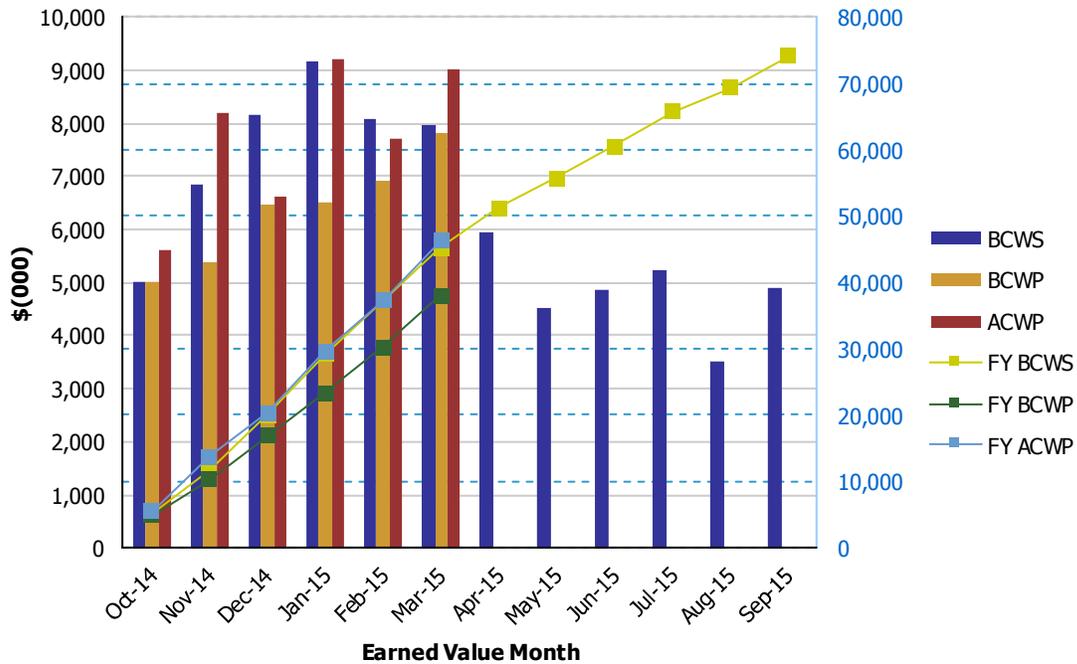
Develop AX Farm tank waste retrieval work plans.

**Issues:**

None.

**Tank Farms ORP-0014  
Retrieve and Close SST's 5.02**

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 2014	\$5,024	\$5,011	\$5,609	1.00	0.89	\$5,024	\$5,011	\$5,609	1.00	0.89
Nov 2014	\$6,852	\$5,392	\$8,174	0.79	0.66	\$11,876	\$10,403	\$13,783	0.88	0.75
Dec 2014	\$8,171	\$6,453	\$6,612	0.79	0.98	\$20,047	\$16,856	\$20,395	0.84	0.83
Jan 2015	\$9,167	\$6,524	\$9,195	0.71	0.71	\$29,215	\$23,380	\$29,589	0.80	0.79
Feb 2015	\$8,075	\$6,924	\$7,719	0.86	0.90	\$37,290	\$30,304	\$37,309	0.81	0.81
Mar 2015	\$7,971	\$7,801	\$9,009	0.98	0.87	\$45,261	\$38,105	\$46,318	0.84	0.82
Apr 2015	\$5,926					\$51,186				
May 2015	\$4,509					\$55,695				
Jun 2015	\$4,852					\$60,547				
Jul 2015	\$5,238					\$65,785				
Aug 2015	\$3,527					\$69,312				
Sep 2015	\$4,886					\$74,198				
CTD	\$550,760	\$533,522	\$555,661	0.97	0.96					

***Retrieval and Close Single-Shell Tanks***

The current month unfavorable cost variance (CV) of (\$1,208K) is due to:

- Challenges installing the new Extended Reach Sluicer #2 within riser #7 at C-102 taking longer than planned.

The current month unfavorable schedule variance (SV) of (\$170K) is due to:

- Waste retrieved from C-102 during March was limited due to the replacement of the AN-106 Slurry Distributor.

## Waste Treatment and Immobilization Plant Project

Number	Title	Due Date	Status
D-00A-06	Complete Methods Validations	12/31/2017	Ongoing*
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2019	Ongoing*
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2022	Ongoing*

WTP = Waste Treatment and Immobilization Plant.

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,829 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 580 craft, 416 non-manual, and 145 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

In October 2012, the Pretreatment (PT) and High-Level Waste (HLW) Facilities 2-Year Interim Work Plan was incorporated into the project over-target baseline, and the percent-complete values for PT and HLW facilities were frozen at the September 2012 rate. ORP has approved the fiscal year (FY) 2015 and FY 2016 2-Year Interim Work Plan, and authorized BNI to resume production engineering activities necessary to finalize the design of the HLW Facility. The WTP Project continues to focus on resolving PT Facility technical issues, performing hazard analyses, and completing safety evaluations for process systems. The HLW safety design strategy has been approved by ORP and limited construction is ongoing.

The WTP Project continues to focus on completion of the Low-Activity Waste (LAW) Facility, analytical laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL). As of March 2015, LBL facilities were 67 percent complete, design and engineering was 79 percent complete, procurement was 76 percent complete, construction was 82 percent complete, and startup and commissioning was 15 percent complete.

In March 2015, the cumulative to-date WTP Project schedule variance was a positive \$1 million, and the cumulative to-date WTP Project cost variance was a positive \$37.7 million. The major contribution to the cumulative to-date cost and schedule variance is based on the progress of the LBL re-plan and PT/HLW 2-Year Interim Work Plan.

The following is the project status through the end of March 2015.

### Significant Past Accomplishments:

- Completed and received approval of the PT Facility 3-year work plan control account plans (PT)
- Issued PT – Ultrafiltration Process System HLP / PWD criticality hazard assessment report (PT)
- Completed two concrete placements (walls 3125, 3114) (HLW)
- Installed 18 tons of structural steel (HLW)
- Completed installation of crane rails and supports in the canister handling cave (HLW)

- Wet Electrostatic Precipitator (WESP) 1 and 2 repairs complete (LAW)
- Installed over 330 linear feet of conduit and pulled approximately 11,260 linear feet of cable (LAW)

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

- Complete modification at Full-Scale Vessel Testing Facility to support Phase 2 testing for the pulse-jet mixer (PJM) controls (PT)
- Submit the Radioactive Liquid Waste Disposal (RLD) Safety Basis Change Package for DOE review (HLW)
- Complete the LAW Facility design and operability review
- Receive caustic scrubber (LAW)
- Finalize Standard High Solids Vessels Design vessel testing planning, test specification/plan, and define simulate and supplemental mixing engineering study (PT)
- Begin LAB system walk downs in support of direct feed LAW modifications (LAB)
- Install nonradioactive liquid waste disposal system motor control panel (BOF)

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

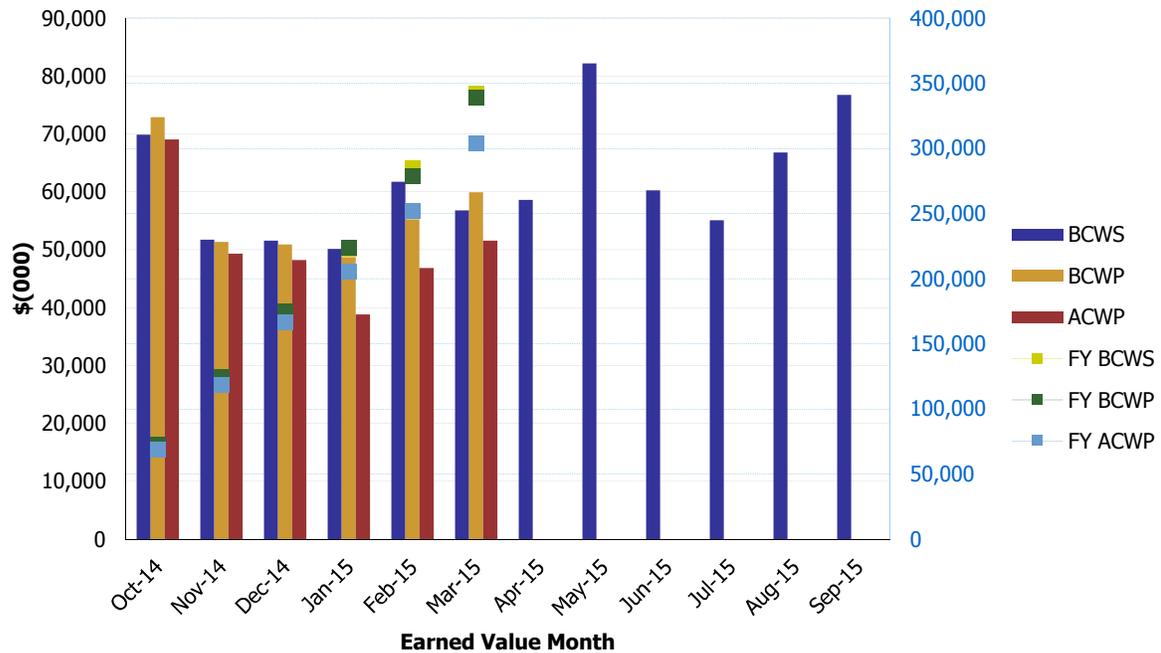
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: March 2015

**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 2014	\$69,893	\$72,879	\$69,039	1.04	1.06	\$69,893	\$72,879	\$69,039	1.04	1.06
Nov 2014	\$51,713	\$51,323	\$49,300	0.99	1.04	\$121,606	\$124,202	\$118,339	1.02	1.05
Dec 2014	\$51,573	\$50,885	\$48,245	0.99	1.05	\$173,179	\$175,087	\$166,583	1.01	1.05
Jan 2015	\$50,143	\$48,696	\$38,818	0.97	1.25	\$223,323	\$223,783	\$205,401	1.00	1.09
Feb 2015	\$61,729	\$55,235	\$46,859	0.89	1.18	\$285,052	\$279,018	\$252,260	0.98	1.11
Mar 2015	\$56,799	\$59,925	\$51,563	1.06	1.16	\$341,850	\$338,942	\$303,823	0.99	1.12
Apr 2015	\$58,602									
May 2015	\$82,171									
Jun 2015	\$60,278									
Jul 2015	\$55,078									
Aug 2015	\$66,789									
Sep 2015	\$76,709									

PTD	\$8,713,330	\$8,714,281	\$8,676,608	1.00	1.00
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## Pretreatment Facility

Number	Title	Due Date	Status
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	Past Due
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	Ongoing*
D-00A-14	PT Facility Construction Substantially Complete	12/31/2017	Ongoing*
D-00A-15	Start PT Facility Cold Commissioning	12/31/2018	Ongoing*
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2019	Ongoing*

PT = pretreatment.

The PT Facility will separate radioactive tank waste into HLW and LAW fractions, and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56 percent complete overall, with engineering design 85 percent complete, procurement 56 percent complete, construction 43 percent complete, and startup and commissioning 3 percent complete. Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent-complete status since September 2012. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the revised PT Facility 3-year work plan.

BNI has submitted resolution plans for eight technical issues: T1, Hydrogen in Vessels; T2, Criticality; T3, Hydrogen in Piping and Ancillary Vessels (HPAV); T4, Mixing; T5, Erosion Corrosion; T6, PT Facility Optimization; T7, Vessel Analysis; and T8, Ventilation. Phase 1 of the Full-Scale Vessel Testing is continuing for the PJM controls utilizing the RLD-8T vessel. Technical review teams continue to evaluate open PT Facility technical issues. An evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility.

### Significant Past Accomplishments:

- Completed and received approval of the PT Facility 3-year work plan control account plans (CAPS)
- Issued draft volume 1 – PTF design concepts for Standard High Solids Vessels
- Completed vessel hydrogen draft calculations
- Completed Standard High Solids Vessels Design test spec. / plan Rev. 0
- Issued PT – Ultrafiltration Process System HLP / PWD criticality hazard assessment report (Heavy Pu)
- Completed five G2 model runs in support to early decision on conceptual design per PT Facility optimization plan
- Completed simulant solids characterization analysis
- Completed PA 2, 3, 4 conceptual piping

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

- Commission Phase 2 test specification/plan and platform modifications
- Finalize Standard High Solids Vessels Design vessel testing planning, test specification/plan, and define simulate and supplemental mixing engineering study
- Issue criticality safety evaluation report on informal study for the evaluation of qualitative risk assessment input parameters to be included in the PT Facility safety basis
- Issue criticality safety evaluation report (CSER) strategy and development plan
- Implement PT Facility systems engineering approach
- Issue fluid dynamics study
- Start informational testing in 8-ft test vessel for down selection of features pertaining to standardized high-solids vessel design
- Complete preliminary analysis of Standard High Solids Vessels Design
- Commission Phase 2 platform modifications
- Issue technical basis to support hold points 1 and 2
- Issue corrosion simulant basis document for localized corrosion

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

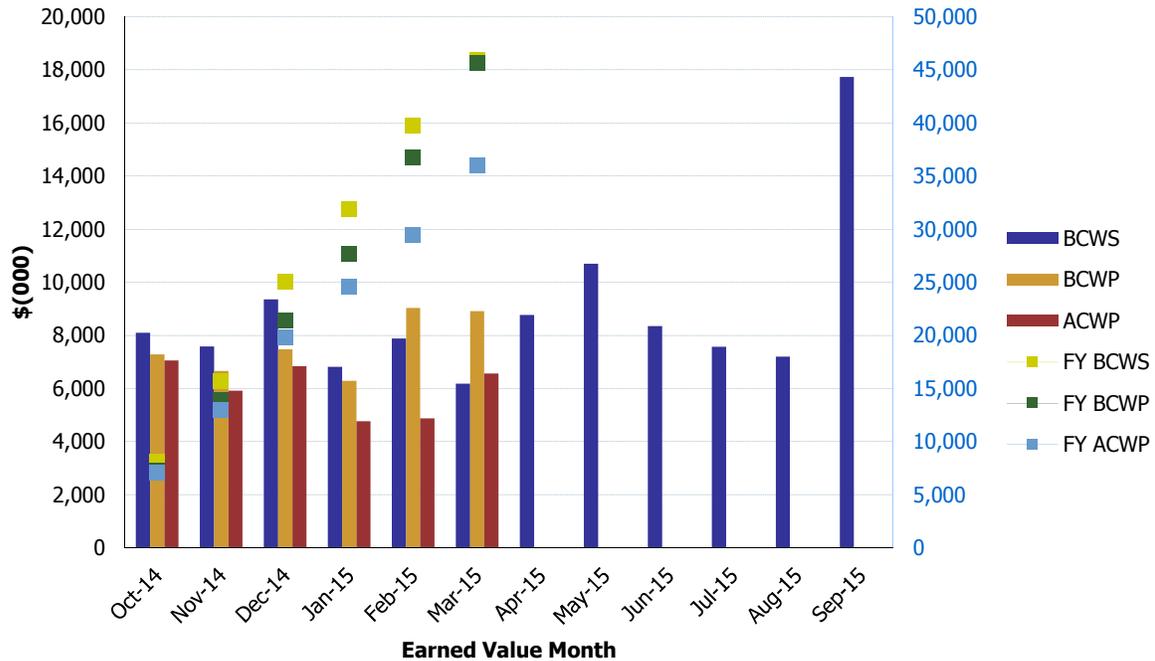
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2015 Earned Value Data

Data as of: March 2015

**River Protection Project  
Pretreatment Facility (WBS 1.01)**

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 2014	\$8,100	\$7,285	\$7,050	0.90	1.03	\$8,100	\$7,285	\$7,050	0.90	1.03
Nov 2014	\$7,582	\$6,657	\$5,917	0.88	1.13	\$15,682	\$13,942	\$12,967	0.89	1.08
Dec 2014	\$9,361	\$7,472	\$6,841	0.80	1.09	\$25,043	\$21,414	\$19,808	0.86	1.08
Jan 2015	\$6,819	\$6,293	\$4,765	0.92	1.32	\$31,862	\$27,707	\$24,574	0.87	1.13
Feb 2015	\$7,877	\$9,034	\$4,869	1.15	1.86	\$39,740	\$36,742	\$29,442	0.92	1.25
Mar 2015	\$6,180	\$8,917	\$6,567	1.44	1.36	\$45,920	\$45,659	\$36,009	0.99	1.27
Apr 2015	\$8,770									
May 2015	\$10,702									
Jun 2015	\$8,349									
Jul 2015	\$7,574									
Aug 2015	\$7,203									
Sep 2015	\$17,732									

PTD	\$1,652,591	\$1,652,278	\$1,642,636	1.00	1.01
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## High-Level Waste Facility

Number	Title	Due Date	Status
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	Complete
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016	Ongoing*
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	Ongoing*
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	Ongoing*

HLW = high-level waste.

The HLW Facility will receive the separated HLW concentrate from the PT Facility. This concentrate will be blended with glass formers, 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 before shipping to interim storage.

As of September 2012, the HLW Facility was 62 percent complete overall, with engineering design 89 percent complete, procurement 81 percent complete, construction 43 percent complete, and startup and commissioning 4 percent complete. Construction, procurement, and production engineering activities have been significantly slowed down, resulting in minimal change to the percent completion status since September. Construction is continuing concrete placements, installation of support steel, and crane rails in the canister decontamination cave.

To support construction, BNI Engineering continues to execute detailed evaluations to release wall and slab placements and installation of HVAC, fire protection, process piping, and electrical commodities. Engineering also continues to review vendor documentation to support receipt and future installation of auto-sampler system (ASX) units. DOE and BNI are finalizing ventilation and off-gas system filter test plans for Phase 1, iteration 2 testing.

BNI is focused on design maturity of key systems through the development of System Design Descriptions (SDD) in accordance with the Systems Engineering Management Plan. Design is progressing for RLD vessels 7 and 8. Proposals for RLD-8 detailed vendor design has been received and are being evaluated. Work also continues on hazards analysis and engineering studies to develop paths forward for resolution of issues regarding the HVAC (heating, ventilation, and air-conditioning) systems, melters, and solid waste handling systems.

### Significant Past Accomplishments:

- Issued one SDD this month for a total of 12
- Continued development of path forward of MSU Phase 1, Iteration 2 HEPA filter test plan
- RLD Safety Basis Change Package is prepared and undergoing BNI Interdiscipline review
- Received proposals for vendor design of RLD-8 vessel

- Completed two concrete placements (walls 3125, 3114)
- Installed 18 tons of structural steel
- Completed installation of crane rails and supports in the canister handling cave
- Vendor fabrication of ASX units 29/42 completed

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

- Submit the RLD Safety Basis Change Package for DOE review
- Initiate improved Nuclear Safety/Engineering analysis process
- Perform vendor documentation reviews in preparation for the installation of ASX framing
- Evaluate ASX installation plan for impact to the Washington State Department of Ecology permit
- Continue installation of crane rails and supports in the canister decontamination cave
- Issue remaining outstanding SDDs
- Finalize and begin execution of MSU Phase 1, Iteration 2 HEPA filter test plan
- Initiate operational research modeling of waste, melter, and melter cave support handling systems

**Issues:**

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to the WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

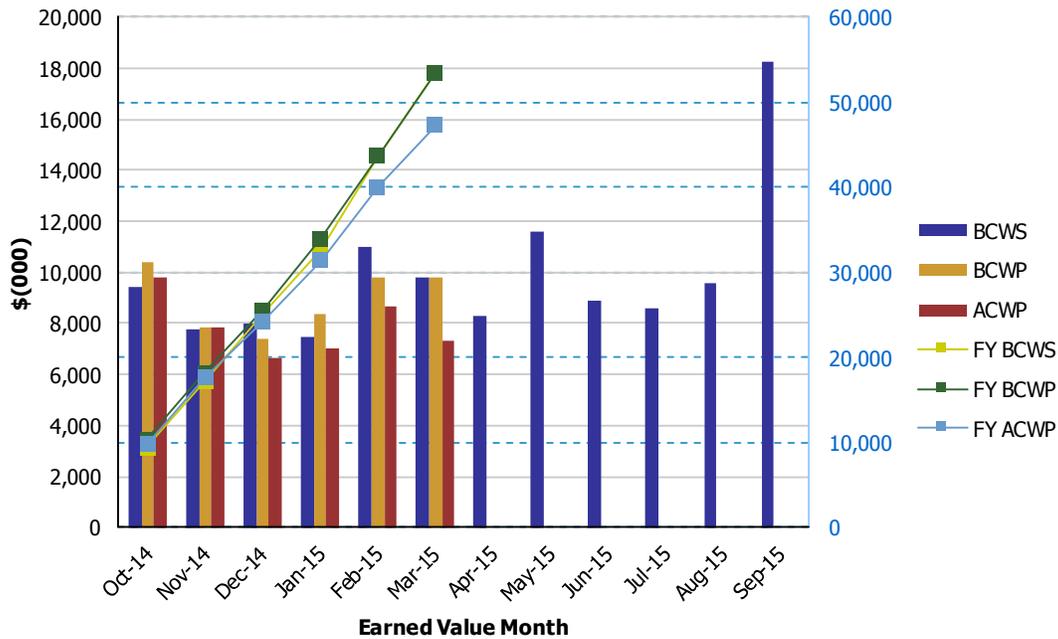
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: March 2015

**River Protection Project  
High-Level Waste Facility (WBS 1.03)**

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 2014	\$9,449	\$10,367	\$9,783	1.10	1.06	\$9,449	\$10,367	\$9,783	1.10	1.06
Nov 2014	\$7,743	\$7,833	\$7,880	1.01	0.99	\$17,192	\$18,200	\$17,663	1.06	1.03
Dec 2014	\$7,973	\$7,359	\$6,631	0.92	1.11	\$25,165	\$25,559	\$24,294	1.02	1.05
Jan 2015	\$7,490	\$8,342	\$6,994	1.11	1.19	\$32,655	\$33,901	\$31,288	1.04	1.08
Feb 2015	\$10,995	\$9,796	\$8,662	0.89	1.13	\$43,650	\$43,698	\$39,949	1.00	1.09
Mar 2015	\$9,792	\$9,760	\$7,295	1.00	1.34	\$53,442	\$53,458	\$47,244	1.00	1.13
Apr 2015	\$8,285									
May 2015	\$11,568									
Jun 2015	\$8,892									
Jul 2015	\$8,570									
Aug 2015	\$9,557									
Sep 2015	\$18,221									

PTD	\$1,107,555	\$1,107,829	\$1,101,305	1.00	1.01
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Mon - SV	Mon - CV
(\$32)	\$2,465
\$273	\$6,523

FY - SV	FY - CV
\$15	\$6,214

## Low-Activity Waste Facility

Number	Title	Due Date	Status
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	Past Due
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	Ongoing*
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	Ongoing*

LAW = low-activity waste.

The LAW Facility will process LAW that 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 anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of March 2015, the LAW Facility was 70 percent complete overall, with engineering design 81 percent complete, procurement 77 percent complete, construction 79 percent complete, and startup and commissioning 10 percent complete.

### Significant Past Accomplishments:

- Submitted Thermal Catalytic Oxidizer (TCO) ANSYS Simulation Software calculation and supporting documentation to Independent Qualified Registered Professional Engineer (IQRPE) for review
- Wet Electrostatic Precipitator (WESP) 1 and 2 repairs complete
- Continued installation of insulation on the process piping on elevation +48-foot level and installed 163 valve blankets
- Installed over 170 linear feet of process piping and hydro-tested 250 linear feet of piping
- Installed over 330 linear feet of conduit and pulled approximately 11,260 linear feet of cable

### Significant Planned Actions in the Next 6 Months:

- Complete subcontractor work scope in the annex
- Complete the LAW Facility design and operability review
- Receive caustic scrubber
- Assemble and install wet electrostatic precipitator internals

### Issues:

\*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

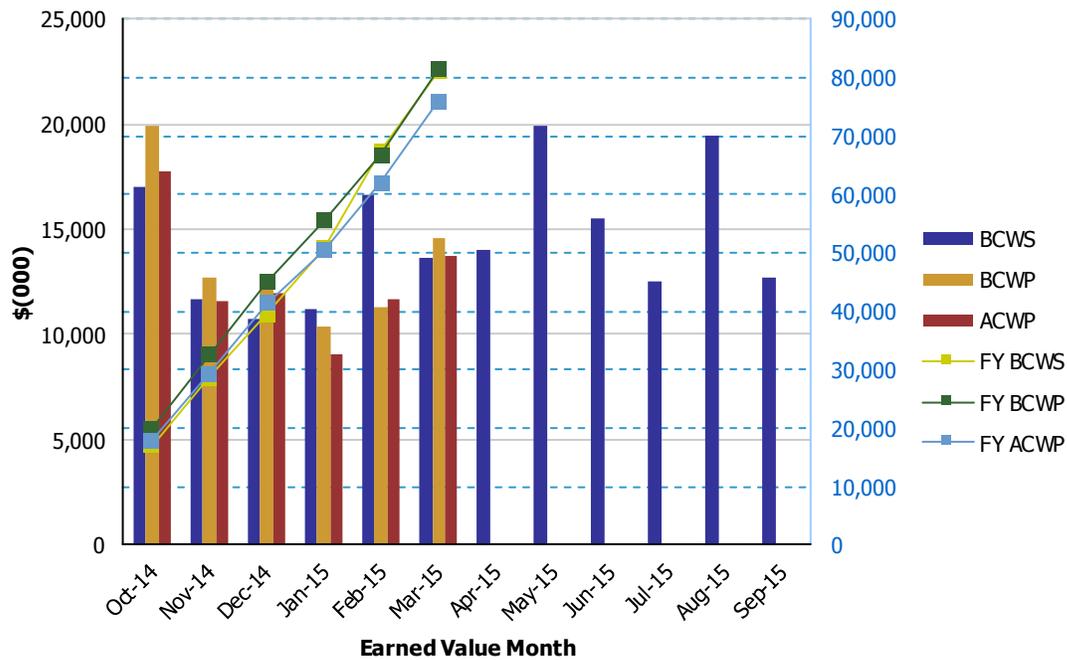
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: March 2015

**River Protection Project**  
**Low-Activity Waste Facility (WBS 1.02)**

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 2014	\$16,994	\$19,896	\$17,781	1.17	1.12	\$16,994	\$19,896	\$17,781	1.17	1.12
Nov 2014	\$11,700	\$12,666	\$11,597	1.08	1.09	\$28,694	\$32,562	\$29,378	1.13	1.11
Dec 2014	\$10,760	\$12,499	\$11,927	1.16	1.05	\$39,454	\$45,061	\$41,305	1.14	1.09
Jan 2015	\$11,248	\$10,387	\$9,033	0.92	1.15	\$50,702	\$55,448	\$50,338	1.09	1.10
Feb 2015	\$16,654	\$11,341	\$11,676	0.68	0.97	\$67,356	\$66,789	\$62,014	0.99	1.08
Mar 2015	\$13,681	\$14,539	\$13,778	1.06	1.06	\$81,037	\$81,329	\$75,792	1.00	1.07
Apr 2015	\$14,011									
May 2015	\$19,920									
Jun 2015	\$15,527									
Jul 2015	\$12,492									
Aug 2015	\$19,434									
Sep 2015	\$12,689									

PTD	\$1,055,231	\$1,058,329	\$1,053,960	1.00	1.00
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## Balance of Facilities

Number	Title	Due Date	Status
D-00A-12	Steam Plant Construction Complete	12/31/2012	Complete

The BOF will provide services and utilities to support operation of the main production facilities: PT, HLW, LAW, and LAB. As of March 2015, BOF was 61 percent complete overall, with engineering design 78 percent complete, procurement 77 percent complete, construction 84 percent complete, and startup and commissioning 16 percent complete.

BNI has initiated design activities to incorporate a permanent capability to directly feed LAW. Engineering activities are in progress to develop the preliminary design for BOF systems in support of direct feed LAW. Construction efforts are focused on the Standby Diesel Generator Facility, Steam Plant piping, and the nonradioactive liquid drain (54) facility.

### Significant Past Accomplishments:

- Continued coatings applications for Steam Plant piping
- Installed 1,617 linear feet of pipe insulation in the Steam Plant
- Installed over 500 linear feet of conduit and pulled approximately 2,980 linear feet of cable

### Significant Planned Actions in the Next 6 Months:

- Complete heat trace insulation in the Cooling Tower Facility
- Complete heat trace insulation in the water treatment building
- Receive and install nonradioactive liquid waste disposal system motor control panel
- Complete component testing of the low-voltage, medium-voltage, and fire detection systems for switchgear Buildings 87 and 91

### Issues:

No major issues at this time.

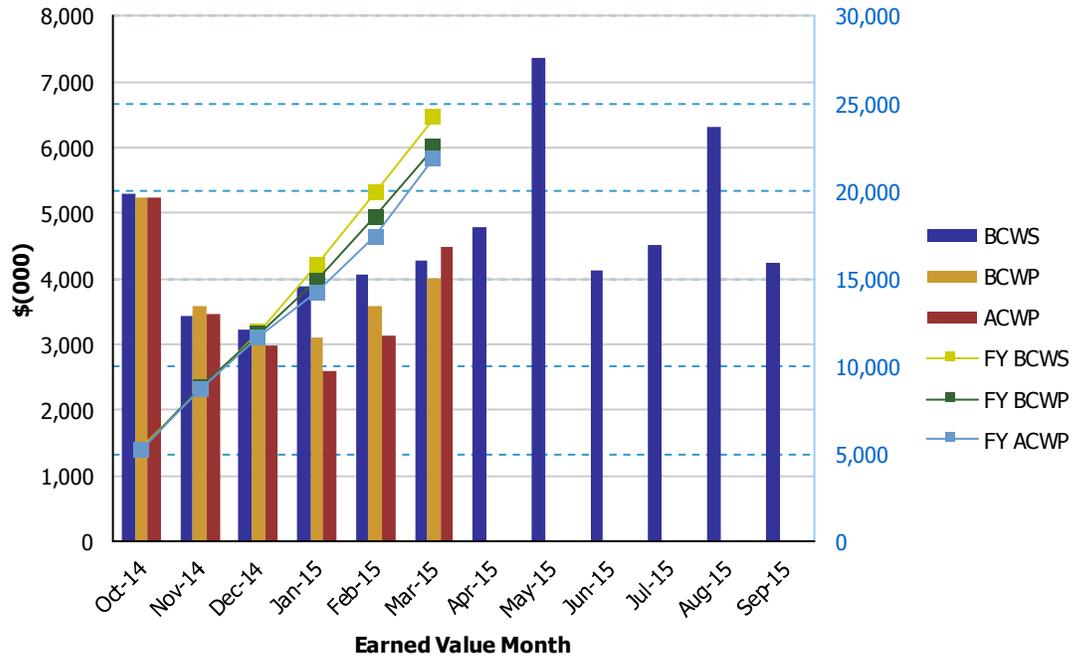
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: March 2015

**River Protection Project  
Balance of Facilities (WBS 1.05)**

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 2014	\$5,300	\$5,238	\$5,223	0.99	1.00	\$5,300	\$5,238	\$5,223	0.99	1.00
Nov 2014	\$3,429	\$3,578	\$3,454	1.04	1.04	\$8,729	\$8,816	\$8,677	1.01	1.02
Dec 2014	\$3,240	\$3,023	\$2,976	0.93	1.02	\$11,969	\$11,839	\$11,653	0.99	1.02
Jan 2015	\$3,885	\$3,098	\$2,584	0.80	1.20	\$15,854	\$14,937	\$14,237	0.94	1.05
Feb 2015	\$4,074	\$3,578	\$3,151	0.88	1.14	\$19,928	\$18,515	\$17,388	0.93	1.06
Mar 2015	\$4,270	\$4,016	\$4,491	0.94	0.89	\$24,198	\$22,531	\$21,879	0.93	1.03
Apr 2015	\$4,799									
May 2015	\$7,347									
Jun 2015	\$4,115									
Jul 2015	\$4,529									
Aug 2015	\$6,319									
Sep 2015	\$4,246									

PTD	\$370,865	\$369,630	\$369,009	1.00	1.00
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## Analytical Laboratory

Number	Title	Due Date	Status
D-00A-05	LAB Construction Substantially Complete	12/31/2012	Complete

LAB = Analytical Laboratory.

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of March 2015, the LAB was 77 percent complete overall, with engineering design 82 percent complete, procurement 87 percent complete, construction 94 percent complete, and startup and commissioning 23 percent complete.

During this reporting period engineering efforts are focused on LAB system reviews to evaluate potential modifications or isolations in support of directly feeding LAW. Closure of nonconformance reports and construction deficiency reports continued. Construction efforts within the LAB construction will soon be suspended. The remaining construction work scope will be completed in parallel with system modifications and construction activities required to support the direct feeding of LAW.

### Significant Past Accomplishments:

- Continued cable pulls and terminations (580 linear feet in March - 95% complete)
- Continued installation of conduit (490 linear feet in March – 99% complete)
- Subcontractor installed/adjusted 12 lateral restraints in accordance with Uniform Building Code flooding requirements and completed 3 new seals (2 conduit and 1 ground wire)

### Significant Planned Actions in the Next 6 Months:

- Place LAB construction punch list activities on hold
- Initiate component level testing of select LAB systems
- Begin LAB system walk downs in support of direct feed LAW modifications

### Issues:

No major issues at this time.

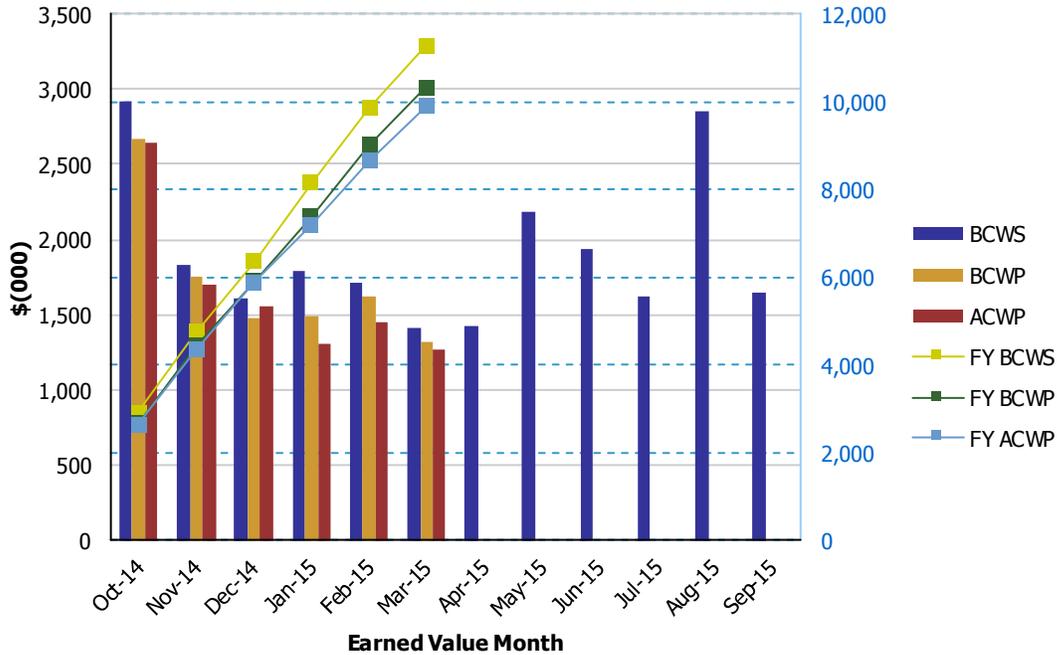
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: March 2015

**River Protection Project  
Analytical Laboratory (WBS 1.06)**

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 2014	\$2,920	\$2,670	\$2,645	0.91	1.01	\$2,920	\$2,670	\$2,645	0.91	1.01
Nov 2014	\$1,827	\$1,748	\$1,695	0.96	1.03	\$4,747	\$4,418	\$4,340	0.93	1.02
Dec 2014	\$1,614	\$1,482	\$1,552	0.92	0.95	\$6,361	\$5,900	\$5,892	0.93	1.00
Jan 2015	\$1,788	\$1,490	\$1,304	0.83	1.14	\$8,149	\$7,390	\$7,196	0.91	1.03
Feb 2015	\$1,716	\$1,618	\$1,447	0.94	1.12	\$9,865	\$9,008	\$8,643	0.91	1.04
Mar 2015	\$1,413	\$1,322	\$1,266	0.94	1.04	\$11,278	\$10,330	\$9,909	0.92	1.04
Apr 2015	\$1,431									
May 2015	\$2,186									
Jun 2015	\$1,940									
Jul 2015	\$1,625									
Aug 2015	\$2,854									
Sep 2015	\$1,651									

PTD	\$293,792	\$293,261	\$293,037	1.00	1.00
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**Waste Treatment Plant Project - (LBL/Project Services) Percent Complete Status  
Through March 2015**

(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars			Project Management & Shared Services 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	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
<b>Facilities</b>																		
Low-Activity Waste	1,509.9	1,058.3	70%	419.1	339.9	81%	318.8	246.1	77%	571.1	448.8	79%	197.0	19.5	10%	4.0	4.0	100%
Balance of Facilities	604.6	369.6	61%	122.8	96.3	78%	69.1	52.8	77%	228.2	191.3	84%	184.0	28.8	16%	0.5	0.5	100%
Analytical Lab	383.0	293.3	77%	90.0	74.3	82%	63.4	55.1	87%	156.0	146.9	94%	73.2	16.5	23%	0.4	0.4	100%
Direct Feed LAW	21.8	3.1	14%	18.8	2.5	13%	0.52	0.08	16%	0.1	0.0	20%	0.0	0.0	0%	2.3	0.49	21%
LBL Facility Services	89.8	22.2	25%	0.0	0.0	0%	20.0	4.8	24%	0.0	0.0	0%	29.4	6.9	24%	40.5	10.46	26%
<b>Total LBL</b>	<b>2,609.1</b>	<b>1,746.5</b>	<b>67%</b>	<b>650.8</b>	<b>513.0</b>	<b>79%</b>	<b>471.8</b>	<b>358.9</b>	<b>76%</b>	<b>955.4</b>	<b>787.0</b>	<b>82%</b>	<b>483.5</b>	<b>71.8</b>	<b>15%</b>	<b>47.7</b>	<b>15.8</b>	<b>33%</b>
Project Services	404.6	108.5	27%	49.4	12.5	25%	37.3	9.2	25%	124.0	35.3	28%	2.9	1.3	44%	190.8	50.1	26%
<b>Total Project Services</b>	<b>404.6</b>	<b>108.5</b>	<b>27%</b>	<b>49.4</b>	<b>12.5</b>	<b>25%</b>	<b>37.3</b>	<b>9.2</b>	<b>25%</b>	<b>124.0</b>	<b>35.3</b>	<b>28%</b>	<b>2.9</b>	<b>1.3</b>	<b>44%</b>	<b>190.8</b>	<b>50.1</b>	<b>26%</b>
<b>Total LBL &amp; Project Services</b>																		
	<b>3,013.7</b>	<b>1,855.0</b>	<b>62%</b>	<b>700.2</b>	<b>525.5</b>	<b>75%</b>	<b>509.1</b>	<b>368.2</b>	<b>72%</b>	<b>1,079.4</b>	<b>822.3</b>	<b>76%</b>	<b>486.5</b>	<b>73.1</b>	<b>15%</b>	<b>238.5</b>	<b>65.9</b>	<b>28%</b>
<b>PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)</b>																		
High-Level Waste	1,478.6	922.1	62%	364.4	325.2	89%	433.9	349.4	81%	561.1	243.2	43%	119.2	4.4	4%	n/a	n/a	n/a
Pretreatment	2,517.3	1,410.5	56%	761.7	645.8	85%	679.9	380.4	56%	890.0	378.6	43%	185.8	5.6	3%	n/a	n/a	n/a
Shared Services	4,726.9	3,632.6	77%	1,047.0	977.9	93%	451.7	395.0	87%	1,436.5	1,143.0	80%	453.5	133.2	29%	1,338.1	983.5	73%
<b>Total HLW/PT/SS</b>	<b>8,722.8</b>	<b>5,965.2</b>	<b>68%</b>	<b>2,173.1</b>	<b>1,948.9</b>	<b>90%</b>	<b>1,565.5</b>	<b>1,124.8</b>	<b>72%</b>	<b>2,887.6</b>	<b>1,764.8</b>	<b>61%</b>	<b>758.5</b>	<b>143.2</b>	<b>19%</b>	<b>1,338.1</b>	<b>983.5</b>	<b>73%</b>
Undistributed Budget	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	n/a	n/a	n/a	n/a
<b>Total WTP</b>	<b>11,736.5</b>	<b>7,820.2</b>	<b>67%</b>	<b>2,873.3</b>	<b>2,474.4</b>	<b>86%</b>	<b>2,074.6</b>	<b>1,493.0</b>	<b>72%</b>	<b>3,967.0</b>	<b>2,587.1</b>	<b>65%</b>	<b>1,245.0</b>	<b>216.3</b>	<b>17%</b>	<b>1,576.6</b>	<b>1,049.4</b>	<b>67%</b>

Source: Preliminary WTP Contract Performance Report - Format 1, Data for March 2015

Note: In September 2012, the LBL Replan was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is \$2,014M. The percent complete values for the Total WTP are the current total LBL BCWP added to the frozen HLW/PT/SS BCWP values. In March 2014, Project Controls and Project Management work scope was moved out of Shared Services control accounts into the facilities with new control accounts being set up in the facilities. These will now be seen under Project Management/Shared Services by facility. The Shared Services PMB value has not been changed to reflect this change due to the freeze on HLW/PT and SS and the budgets remaining in UB. October 2014 data reflects the incorporation of Direct Feed LAW and the split of Shared Services into LBL Facility Services and Project Services.