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(0071229H)

Final

Office of River Protection  
Consent Decree  
Monthly Report  
May<sup>1</sup> 2017

**Consent Decree**, *State of Washington v. Dept. of Energy*, Case No. 2:08-cv-05085-FVS  
(October 25, 2010)

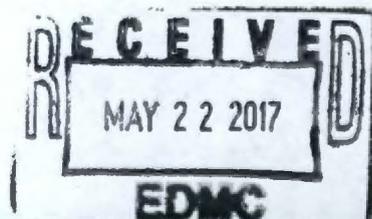
**Amended Consent Decree**, *State of Washington v. Dept. of Energy*, Case No.  
2:08-CV-5085-RMP (March 11, 2016)

**Second Amended Consent Decree**, *State of Washington v. Dept. of Energy*, Case  
No. 2:08-5085-RMP (April 12, 2016)<sup>2</sup>

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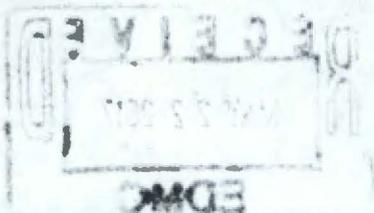
<sup>1</sup> The narrative descriptions of progress in this report cover the period from April 1–30, 2017. Earned Value Management System data and descriptions cover the period of March 1–31, 2017; this includes the facility completion percentage estimates included at various locations in the Waste Treatment and Immobilization Plant section.

<sup>2</sup> The cited consent decrees are between the State of Washington and U.S. Department of Energy. For each of these decrees, there are companion, separate consent decrees with the State of Oregon, as Intervenor, under the same case numbers.



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**Acronyms and Abbreviations**

ABW	ABW Technologies
BNI	Bechtel National, Inc.
BOF	Balance of Facilities
C#V	ventilation system for potential contamination zones C#
CD	Consent Decree ( <i>State of Washington v. Dept. of Energy</i> , Case No. 2:08-cv-05085-FVS [October 25, 2010]; as amended, Amended Consent Decree, Case No. 2:08-cv-05085-RMP [March 11, 2016]; as amended, Second Amended Consent Decree, Case No. 2:08-cv-05085-RMP [April 12, 2016])
CV	cost variance
D&O	design and operability
DFLAW	direct-feed low-activity waste
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy
EMF	Effluent Management Facility
ERSS	extended reach sluicer system
EVMS	Earned Value Management System
FY	fiscal year
HAMTC	Hanford Atomic Metals Trades Council
HEPA	high-efficiency particulate air
HLW	High-Level Waste (Facility)
HPAV	hydrogen in piping and ancillary vessels
HVAC	heating, ventilation, and air-conditioning
LAB	Analytical Laboratory
LAW	Low-Activity Waste (Facility)
Laboratory	
LBL	Low-Activity Waste Facility, Balance of Facilities, and Analytical Laboratory
ORP	U.S. Department of Energy, Office of River Protection
PDSA	preliminary documented safety analysis
PJM	pulse-jet mixer
PT	Pretreatment (Facility)
SHSV	standard high-solids vessel
SV	schedule variance
WRPS	Washington River Protection Solutions LLC
WTP	Waste Treatment and Immobilization Plant

**Consent Decree Milestone Statistics/Status**

<b>Milestone</b>	<b>Title</b>	<b>Due Date</b>	<b>Completion Date</b>	<b>Status</b>
<b>Fiscal Year 2020</b>				
D-00A-07 Interim	LAW Facility Construction Substantially Complete	12/31/2020		On Schedule
D-16B-03	Of the 12 SSTs referred to in B-1 and B-2, complete retrieval of tank waste in at least 5	12/31/2020		Notice given that a serious risk has arisen. See letter 16-ORP- 0097.
<b>Fiscal Year 2022</b>				
D-00A-08 Interim	Start LAW Facility Cold Commissioning	12/31/2022		On Schedule
<b>Fiscal Year 2023</b>				
D-00A-09 Interim	LAW Facility Hot Commissioning Complete	12/31/2023		On Schedule
<b>Fiscal Year 2024</b>				
D-16B-01	Complete Retrieval of Tank Waste from the following remaining SSTs in WMA-C: C-102, C-105, and C-111	03/31/2024		On Schedule
D-16B-02	Complete retrieval of tank wastes from the following SSTs in Tank Farms A and AX: A-101, A-102, A-104, A-105, A-106. AX-101, AX-102, AX-103, and AX-104. Subject to the requirements of Section IV-B-3 DOE may substitute any of the identified 9 SSTs and advice Ecology accordingly	03/31/2024		Notice given that a serious risk has arisen. See letter 16-ORP- 0097.
<b>Fiscal Year 2030</b>				
D-00A-02 Interim	HLW Facility Construction Substantially Complete	12/31/2030		On Schedule

<b>Milestone</b>	<b>Title</b>	<b>Due Date</b>	<b>Completion Date</b>	<b>Status</b>
<b>Fiscal Year 2031</b>				
D-00A-13 Interim	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2031		On Schedule
D-00A-14 Interim	PT Facility Construction Substantially Complete	12/31/2031		On Schedule
D-00A-19 Interim	Complete Elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2031		On Schedule
<b>Fiscal Year 2032</b>				
D-00A-03 Interim	Start HLW Facility Cold Commissioning	06/30/2032		On Schedule
D-00A-06 Interim	Complete Methods Validations	06/30/2032		On Schedule
D-00A-15 Interim	Start PT Facility Cold Commissioning	12/31/2032		On Schedule
<b>Fiscal Year 2033</b>				
D-00A-04 Interim	HLW Facility Hot Commissioning Complete	12/31/2033		On Schedule
D-00A-16 Interim	PT Facility Hot Commissioning Complete	12/31/2033		On Schedule
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2033		On Schedule
<b>Fiscal Year 2036</b>				
D-00A-01	Achieve Initial Plant Operations for the Waste Treatment Plant	12/31/2036		On Schedule

DOE = U.S. Department of Energy.  
Ecology = Washington State Department of Ecology.  
HLW = high-level waste.  
LAW = low-activity waste.  
PT = pretreatment.  
SST = single-shell tank.  
WMA-C = C Farm waste management area.

**Consent Decree Reports/Reviews**

**D-16C-03 series, Submit to State of Washington and State of Oregon Quarterly Report, Due: 45 days following after each calendar year quarter, Status: On Schedule.**

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

**D-006-00-B1, Provide State of Oregon notice of meetings in D-006-00-B, etc. no less than 30 days before they are scheduled, Status: Complete.**

**D-006-00-B, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree, Status: Complete (March 16, 2017).**

**Spare Reboiler Requirement Status****Tank Farms Assistant Manager:** Glyn Trenchard**Federal Program Manager:** Paul Hernandez

<b>Milestone</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-16E-01	DOE must purchase by December 31, 2016, a spare E-A-1 reboiler for the 242-A Evaporator	12/31/2016	Complete
D-16E-02	Have available spare E-A-1 reboiler for the 242-A Evaporator	12/31/2018	On Schedule

DOE = U.S. Department of Energy.

**Description of activity and progress made for the spare E-A-1 reboiler for the 242-A Evaporator, including a description of cost and schedule performance:**

- Design of the new spare 242-A Evaporator reboiler is ongoing with ABW Technologies (ABW). A bounding-conditions finite element analysis (FEA) associated with the reboiler has been completed. Part of the analysis will be re-performed to assess re-boiler nozzle loads when in an installed configuration, at the request of the Washington River Protection Solutions LLC (WRPS) engineering design lead.
- The commercial grade dedication plan submitted by ABW has been reviewed and approved by WRPS engineering. ABW has completed the fabrication, inspection and testing traveler.

### Single-Shell Tank Retrieval Program

**Tank Farms Assistant Manager:** Glyn Trenchard

**Federal Program Manager:** Jeff Rambo

Milestone	Title	Due Date	Status
D-16B-03	Of the 12 SSTs referred to in B-1 and B-2, complete retrieval of tank waste in at least 5	12/31/2020	Notice given that a serious risk has arisen. See letter 16-ORP-0097.
D-16B-01	Complete retrieval of tank waste from the following remaining SSTs in WMA-C: C-102, C-105, and C-111	03/31/2024	On Schedule
D-16B-02	Complete retrieval of tank wastes from the following SSTs in Tank Farms A and AX: A-101, A-102, A-104, A-105, A-106, AX-101, AX-102, AX-103, and AX-104. Subject to the requirements of Section IV-B-3 DOE may substitute any of the identified 9 SSTs and advise Ecology accordingly.	03/31/2024	Notice given that a serious risk has arisen. See letter 16-ORP-0097.

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology.

SST = single-shell tank.

WMA-C = C Farm waste management area.

#### Significant Accomplishments for the Prior Three Months:

- Completed all pit clean outs associated with Tank AX-102 and Tank AX-104 (eight of eight pit clean outs completed)
- Completed initial Tank AX portable exhauster POR126 and POR127 testing; both exhausters are operating under “testing” conditions
- Completed foam and lead removal at Tank AX-103
- Initiated field work activities for first long length equipment pulls from Tank AX-102 and Tank AX-104
- Installed Tank C-105 Third Technology slurry pump
- Initiated a second Tank C-105 construction shift to mitigate schedule impacts
- Installed one of two Tank C-105 ERSS
- Completed Tank C-105 POR209 hose-in-hose transfer line bypass

- Completed Tank C-105 excavations for electrical installations
- Initiated C Tank Farm hose-in-hose transfer line removals planned for fiscal year (FY) 2017
- Initiated removal of Tank AX-104 in-tank equipment (two thermocouple assemblies).

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

- Negotiate contract proposal for installing and performing the third retrieval technology at Tank C-105
- Complete Tank C-105 slurry pump containment box installation
- Complete AX Tank Farm ventilation readiness/turnover at portable exhauster POR126 and POR127
  
- Complete in-service leak testing of Tank C-105 slurry pump installation
- Complete installation of second Tank C-105 extended reach sluicer
- Complete in-service leak testing for two (2) Tank C-105 extended reach sluicers
- Complete construction acceptance testing (CAT) for Tank C-105 3<sup>rd</sup> Technology Retrieval System
- Complete operational acceptance testing (OAT) for Tank C-105 3<sup>rd</sup> Technology Retrieval System
- Declare readiness for and initiate Tank C-105 3<sup>rd</sup> Technology Retrieval
- Complete Tank AX-101 foam and lead removal (lead removal is ongoing)
- Complete 801A Building demolition
- Complete installation of the new Tank C-105 Control System.
- Initiate Tank C-105 Third Retrieval Technology waste retrieval operations.

**Issues:**

- Reduced worker efficiencies associated with mandatory use of supplied air continues to impact work in the tank farms. With respect to ongoing litigation regarding chemical vapors, the parties held a two-day mediation session on April 20-21, 2017.

**Tank Waste Retrieval Work Plan Status**

Tank	TWRWP	Expected Revisions	Retrieval Technology		
			First	Second	Third
AX-101	RPP-RPT-58932, Rev. 0	In Progress	Sluicing with ERSS	High-Pressure Water deployed with ERSS	–
AX-102	RPP-RPT-58933, Rev. 0	In Progress	Sluicing with ERSS	High-Pressure Water deployed with ERSS	–
AX-103	RPP-RPT-58934, Rev. 0	In Progress	Sluicing with ERSS	High-Pressure Water deployed with ERSS	–
AX-104	RPP-RPT-58935, Rev. 0	In Progress	Sluicing with ERSS	High-Pressure Water deployed with ERSS	–
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	In Progress	MARS-V	MARS-V High-Pressure Water Spray	Chemical Dissolution Process with ERSS
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	–

Tank	TWRWP	Expected Revisions	Retrieval Technology		
			First	Second	Third
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 sluicer system.  
MARS-S = Mobile Arm Retrieval System-Sluicing.  
MARS-V = Mobile Arm Retrieval System-Vacuum.  
TWRWP = tank waste retrieval work plan.

**Significant Accomplishments:**

- None.

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

- Finalize AX Tank Farm retrieval work plans
- Incorporate third retrieval technology in the revised C-105 Tank Waste Retrieval Work Plan.

**Issues:**

- None.

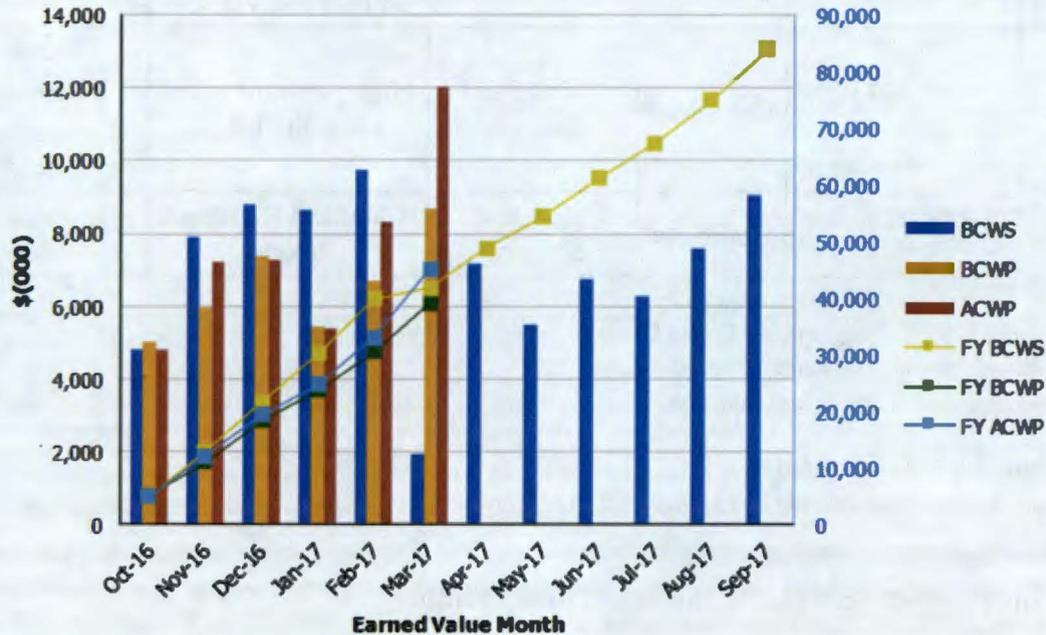
### EXC-01a: Fiscal Year Cost and Schedule Report

Earned Value Data: Fiscal Year 2017

March-17

**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 2016	\$4,816	\$4,996	\$4,822	1.04	1.04	\$4,816	\$4,996	\$4,822	1.04	1.04
Nov 2016	\$7,924	\$5,969	\$7,241	0.75	0.82	\$12,740	\$10,965	\$12,063	0.86	0.91
Dec 2016	\$8,772	\$7,401	\$7,262	0.84	1.02	\$21,512	\$18,365	\$19,325	0.85	0.95
Jan 2017	\$8,646	\$5,422	\$5,360	0.63	1.01	\$30,158	\$23,787	\$24,685	0.79	0.96
Feb 2017	\$9,716	\$6,707	\$8,341	0.69	0.80	\$39,874	\$30,495	\$33,026	0.76	0.92
Mar 2017	\$1,903	\$8,675	\$12,056	4.56	0.72	\$41,777	\$39,170	\$45,082	0.94	0.87
Apr 2017	\$7,156			0.00	0.00	\$48,933			0.00	0.00
May 2017	\$5,499			0.00	0.00	\$54,432			0.00	0.00
Jun 2017	\$6,758			0.00	0.00	\$61,191			0.00	0.00
Jul 2017	\$6,258			0.00	0.00	\$67,449			0.00	0.00
Aug 2017	\$7,579			0.00	0.00	\$75,028			0.00	0.00
Sep 2017	\$9,072			0.00	0.00	\$84,100			0.00	0.00

CTD	\$750,945	\$737,219	\$765,756	0.98	0.96
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ACWP = actual cost of work performed.  
 BCWP = budgeted cost of work performed.  
 BCWS = budgeted cost of work scheduled.  
 CPI = cost performance index.

CTD = contract to date.  
 EVMS = earned value management system.  
 FY = fiscal year.  
 SPI = schedule performance index.

**Retrieve and Close Single-Shell Tanks (5.02)**

The March 2017 **favorable** schedule variance (SV) of \$6,772K is due to:

- A baseline change request was processed in March that resulted in a point adjustment in the FY 2017 budget as a result of the Continuing Resolution. Adjustments included field work within AX Tank Farm that was originally planned to be performed this year but was constrained due to SCBA inefficiencies, beryllium precautions, limited personnel, and funding restrictions.

The March 2017 **unfavorable** cost variance (CV) of (\$3,381K) is due to:

- Increased costs are associated with the continued inefficiencies associated with SCBA usage. In addition, unanticipated costs have been incurred as a result of possible beryllium contamination, and sampling requirements in A/AX Tank Farms and C Tank Farm for personnel protection.

## Waste Treatment and Immobilization Plant Project

**Federal Project Director:** Bill Hamel

**Deputy Federal Project Director:** Joni Grindstaff

Milestone	Title	Due Date	Status
D-00A-06	Complete Methods Validations	06/30/2032	On Schedule
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2033	On Schedule
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2036	On Schedule

WTP = Waste Treatment and Immobilization Plant.

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 3,114 full-time equivalent contractor, Bechtel National, Inc. (BNI), and subcontractor personnel. This includes 697 craft, 715 non-manual, and 122 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

The WTP Project continues to focus on completion of the Low-Activity Waste (LAW) Facility, Balance of Facilities (BOF), and Analytical Laboratory (LAB) (collectively known as LBL, including direct-feed LAW [DFLAW] and LBL facility services). As of March 2017, total LBL facilities were 55 percent complete, design and engineering was 80 percent complete, procurement was 69 percent complete, construction was 72 percent complete, and startup and commissioning was 17 percent complete.

The WTP Project has complied with milestones already come due as of the date of this report. There are no missed milestones that may affect compliance with other milestones.

### Significant Accomplishments during the Prior Three Months:

- Significant accomplishments during the prior three months are noted in project reports for the Pretreatment (PT) Facility, High-Level Waste (HLW) Facility, LAW Facility, BOF, and LAB.

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

- Significant planned activities in the next three months are noted in project reports for the PT Facility, HLW Facility, LAW Facility, BOF, and LAB.

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

Data Set: FY 2017 Earned Value Data

Data as of: March 2017

**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 2016	\$67,019	\$58,321	\$56,633	0.87	1.03	\$67,019	\$58,321	\$56,633	0.87	1.03
Nov 2016	\$59,361	\$55,681	\$56,299	0.94	0.99	\$126,379	\$114,002	\$112,932	0.90	1.01
Dec 2016	\$52,654	\$55,489	\$56,125	1.05	0.99	\$179,033	\$169,491	\$169,057	0.95	1.00
Jan 2017	\$52,807	\$46,077	\$40,881	0.87	1.13	\$231,840	\$215,568	\$209,938	0.93	1.03
Feb 2017	\$50,489	\$49,354	\$48,627	0.98	1.01	\$282,329	\$264,922	\$258,565	0.94	1.02
Mar 2017	\$78,183	\$72,145	\$75,415	0.92	0.96	\$360,512	\$337,067	\$333,981	0.93	1.01
Apr 2017	\$56,589									
May 2017	\$55,031									
Jun 2017	\$54,043									
Jul 2017	\$59,154									
Aug 2017	\$58,300									
Sep 2017	\$81,906									

PTD	\$10,188,628	\$10,138,076	\$10,064,070	1.00	1.01
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|---|--|
| ACWP = actual cost of work performed.   | CTD = contract to date.                |
| BCWP = budgeted cost of work performed. | EVMS = earned value management system. |
| BCWS = budgeted cost of work scheduled. | FY = fiscal year.                      |
| CPI = cost performance index.           | SPI = schedule performance index.      |

**Project Schedule and Cost Variance Performance**

<b>Performance Tracking</b>	<b>SV (\$x1,000)</b>	<b>CV (\$x1,000)</b>
Current Period (March 2017)	(\$6,038)	(\$3,270)
Fiscal Year 2017 to-date	(\$23,446)	\$3,086
Cumulative (through March 2017)	(\$50,551)	\$74,007

CV = cost variance.

SV = schedule variance.

**Earned Value Management System Analysis**

The Earned Value Management System (EVMS) is intended to provide a status of how the contractor is progressing against its planned work (i.e., schedule), and whether it is costing more or less to complete the work than planned. The project plan is measured by expressing the schedule in terms of dollars spread over the anticipated project duration, and then for each month, determining how much of the planned work was accomplished or “earned,” as measured in equivalent dollars. If more work is accomplished than planned, then the project is ahead of schedule and has a favorable SV. Similarly, if less work is accomplished, the project is behind schedule and has an unfavorable SV. Accomplished work is reported in the month it was completed, which may not be when it was planned. For example, work completed in a month earlier than planned would be reported as a favorable SV for the month in which it was completed, but would be reported as an unfavorable SV in the month it was planned. The end result would be the overall cumulative SV netting out to zero over these months. Likewise, work completed late will recover an earlier reported unfavorable SV.

The CV measures the actual cost of work performed against the earned dollar value of that performed work. As an example, assume \$10,000 of work was planned to-date, \$8,000 was reported as being performed (earned), at an actual cost of \$9,000. This work would be reported as being \$2,000 behind schedule [a negative or unfavorable SV:  $\$8,000 - \$10,000 = (\$2,000)$ ], and has cost \$1,000 more [a negative or unfavorable CV:  $\$8,000 - \$9,000 = (\$1,000)$ ] than was planned for completing that work scope. Likewise, a favorable or positive CV would be reported if it cost less to complete the work than the performed dollar value of the work.

The SV and CV are reported for each monthly period, fiscal year to-date, as well as for the project-to-date value. The monthly variances can fluctuate significantly (for reasons noted earlier), so the fiscal year or cumulative-to-date report provides a better indicator of the overall project completion status, and can give a reasonable projection of how the project will finish, based on the progress-to-date.

For the March EVMS reporting period, a net **unfavorable** SV of approximately (\$6.0 million) was reported (meaning a net of \$6 million worth of planned work scope was not completed), primarily due to the following:

- The LBL/DFLAW facilities reported a net unfavorable SV of (\$6.0 million). LBL Engineering contributed about \$2.5 million of the unfavorable SV, as the LAW Mechanical Systems, Controls and Instrumentation, and Plant Design continue to be

impacted by the change in preliminary documented safety analysis (PDSA) execution strategy. LBL Construction, Startup, and Commissioning reported an unfavorable SV of (\$3.0 million). However, this variance is mostly related to implementation of the Waste Treatment Completion Company subcontract into the BNI Performance Measurement Baseline. The existing BNI Construction, Startup, and Commissioning control accounts were closed and all remaining effort was transferred to the new Waste Treatment Completion Company control accounts. The change resulted in *current period* adjustments and administrative impacts to performance reporting, but did not significantly impact the to-date variances.

For the March EVMS reporting period, a net **unfavorable** CV of approximately (\$3.3 million) was reported (meaning it cost about \$3.3 million more to complete the work scope than estimated), primarily due to the following:

- The LBL/DFLAW facilities reported a net unfavorable CV of (\$2.0 million). LBL Engineering recorded about \$1.7 million of the unfavorable CV, related to LAW Engineering resources charging to special purpose charge codes in executing the revised PDSA execution strategy. LBL Construction, Startup, and Commissioning recorded an unfavorable CV of (\$0.5 million). This was related to implementation of the Waste Treatment Completion Company subcontract into the BNI Performance Measurement Baseline (as noted above). These unfavorable CVs were offset by an LBL support functions favorable CV of \$0.3 million, primarily related to less resources being utilized than planned.
- Project Services reported a net unfavorable CV of (\$1.5 million). General/Other services recorded a net unfavorable CV of (\$1.1 million) primarily due to site closure costs and Information Technology equipment and software lease costs that were deferred and will be corrected in future reports.
- The PT Facility reported a net unfavorable CV of (\$0.2 million), related to technical teams extra effort to complete the standard high-solids vessel (SHSV) design plant vessel structural analysis and additional support of the full-scale vessel test program from the national laboratories.
- The HLW Facility reported a favorable CV of \$0.3 million, due to favorable performance in level-of-effort accounts and less procurement support being required than planned.

Through the current monthly reporting period, there are no SVs or CVs impacting current Consent Decree milestones.

## Pretreatment Facility

*Federal Project Director:* Bill Hamel

*Facility Federal Project Director:* Wahed Abdul

Milestone	Title	Due Date	Status
D-00A-18	Complete Structural Steel Erection Below Elevation 56' in PT Facility	12/31/2009	Complete
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2031	On Schedule
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2031	On Schedule
D-00A-14	PT Facility Construction Substantially Complete	12/31/2031	On Schedule
D-00A-15	Start PT Facility Cold Commissioning	12/31/2032	On Schedule
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2033	On Schedule

PT = pretreatment.

The PT Facility will separate radioactive tank waste into high-level waste and low-activity waste 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. The physical percent complete analysis for the PT Facility was frozen in September 2012, pending development of a revised baseline to address technical and design issues.

ORP and BNI continue to work on resolving the remaining technical issues as described in the Amended Consent Decree, which includes, “Ensuring Control of the Pulse Jet Mixers” (i.e., T4 in relation to pulse jet mixer [PJM] vessel mixing and control); “Protecting Against Possible Erosion and Corrosion” (i.e., T5 in relation to erosion/corrosion in piping and ancillary vessels); and “Ensuring Ventilation Balancing” (i.e., T8 in relation to facility ventilation/process offgas treatment).

Work is also being performed to evaluate the facility design using the SHSV test design prototype (i.e., T6 in relation to design redundancy and in-service inspection), and evaluating vessel and equipment structural integrity (i.e., T7 in relation to seismic ground motion criteria changes around 2005).

Full-scale testing is ongoing and significant progress has been made in addressing the PJM controls and mixing issue. Test plans have been designed to demonstrate adequacy of the PJM control system and the vessel mixing to support resolution of PJM issues applicable to PT Facility vessels with high solids concentrations and non-Newtonian slurries. Test results will be used to support the PT Facility redesign with the SHSV design. ORP continues to work with

BNI to develop closure packages for each technical issue, defining work scope, required deliverables, and technical issue resolution criteria.

**Significant Accomplishments during the Prior Three Months:**

- ORP and BNI initiated testing of a proposed PJM SHSV design to replace a number of vessel designs in the PT Facility (this is in relation to resolving concerns over PJM vessel mixing and control [i.e., T4]). A prototype of the 16-foot-diameter SHSV was commissioned in December 2016. Testing is expected to be completed in September 2017 and will provide the required design and operations information to support PT Facility design.
- BNI issued a Basis of Design Change Notice establishing the erosion/corrosion basis of design parameters (this is in relation to resolving concerns over erosion/corrosion in piping and vessels [i.e., T5]).
- BNI issued the draft SHSV Conceptual Design Plan to ORP for review.

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

- BNI to complete the erosion/corrosion synergistic test simulant qualification and final recipe.
- BNI will continue full-scale testing of the SHSV design prototype, focusing on the PJM mixing systems testing.
- BNI to complete non-Newtonian blend testing at the National Engineering Technology Laboratory that supports the full-scale vessel testing.
- ORP and BNI will continue efforts to resolve the spray leak methodology and sliding bed wear issues identified by the Defense Nuclear Facilities Safety Board in its *26<sup>th</sup> Annual Report to Congress*, dated March 2016.
- BNI to issue an update to the localized corrosion test basis document.

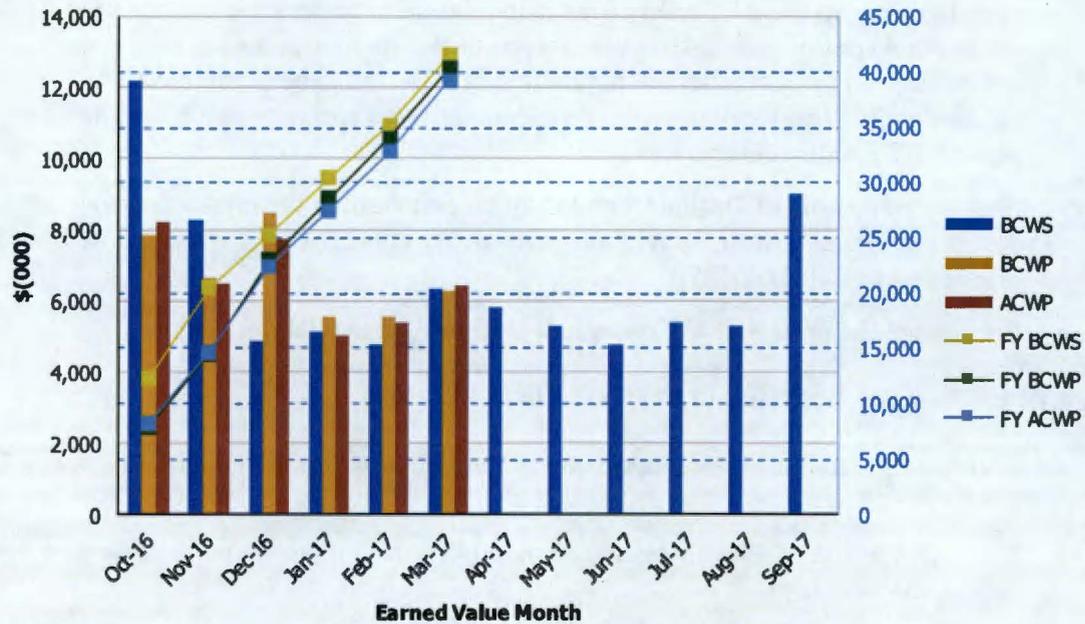
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2017 Earned Value Data

Data as of: March 2017

**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 2016	\$12,193	\$7,845	\$8,196	0.64	0.96	\$12,193	\$7,845	\$8,196	0.64	0.96
Nov 2016	\$8,254	\$6,654	\$6,487	0.81	1.03	\$20,447	\$14,500	\$14,684	0.71	0.99
Dec 2016	\$4,851	\$8,480	\$7,738	1.75	1.10	\$25,298	\$22,980	\$22,421	0.91	1.02
Jan 2017	\$5,139	\$5,539	\$5,024	1.08	1.10	\$30,437	\$28,519	\$27,445	0.94	1.04
Feb 2017	\$4,765	\$5,517	\$5,361	1.16	1.03	\$35,202	\$34,036	\$32,806	0.97	1.04
Mar 2017	\$6,333	\$6,286	\$6,455	0.99	0.97	\$41,535	\$40,322	\$39,261	0.97	1.03
Apr 2017	\$5,816									
May 2017	\$5,300									
Jun 2017	\$4,769									
Jul 2017	\$5,385									
Aug 2017	\$5,307									
Sep 2017	\$9,009									

PTD	\$1,889,812	\$1,890,562	\$1,866,834	1.00	1.01
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- ACWP = actual cost of work performed.
- BCWP = budgeted cost of work performed.
- BCWS = budgeted cost of work scheduled.
- CPI = cost performance index.
- CTD = contract to date.
- EVMS = earned value management system.
- FY = fiscal year.
- SPI = schedule performance index.

## High-Level Waste Facility

**Federal Project Director:** Bill Hamel

**Facility Federal Project Director:** Wahed Abdul

Milestone	Title	Due Date	Status
D-00A-20	Complete Construction of Structural Steel to 14' in HLW Facility	12/31/2010	Complete
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	12/31/2030	On Schedule
D-00A-03	Start HLW Facility Cold Commissioning	06/30/2032	On Schedule
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2033	On Schedule

HLW = high-level waste.

The HLW Facility will receive the separated high-level waste concentrate from the PT Facility. This concentrate will be blended with glass formers, converted into molten glass in one of the two HLW Facility 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. The physical percent complete analysis for the HLW Facility was frozen in September 2012, pending development of a revised baseline to address technical and design issues.

Work on the HLW Facility is now being performed in accordance with the FY 2017–FY 2021 Interim Work Plan. BNI is still working under a limited construction and procurement authorization, and efforts are focused on completing activities required to obtain full-production authorization from ORP. BNI submitted a Facility Completion Plan identifying the strategy for obtaining full authorization to complete engineering, procurement, and construction of the HLW Facility. The final draft of the HLW Facility Completion Plan has been approved by ORP.

BNI Engineering is focused on activities to support implementation of technical core team recommendations and development of engineering studies and analysis to disposition design and operability (D&O) review comments. All of the planned engineering studies and individual comment dispositions in support of the resolution of the D&O comments have been issued. ORP has reviewed all disposition comments for adequacy. BNI is now developing a final D&O report to summarize recommendations to support ORP authorization for full construction.

The HLW Facility PDSA update to align design and the safety basis was previously submitted to ORP. The ORP-chartered Safety Basis Review Team provided initial comments, and BNI submitted responses to those comments along with a revised PDSA in early March 2017. This

review and comment resolution process is being impacted by resource constraint and has been delayed due to the ongoing LBL PDSA review and approval, which is a higher WTP priority at this time. Once the HLW PDSA is approved, system design requirements will be confirmed to ensure facility design is aligned with the nuclear safety basis.

All testing at Mississippi State University of the high-efficiency particulate air (HEPA) filter “Design 4” for the safe-change and remote-change housings have been completed successfully. Underwriters Laboratories testing for flame and flammability resistance is underway. The final report from the results of the testing is planned to be issued in mid-2017.

**Significant Accomplishments during the Prior Three Months:**

- ORP approved the HLW Facility Completion Plan.
- BNI incorporated ORP comments into the final HLW Facility Completion Plan submittal.
- BNI transmitted the revised PDSA change package, incorporating responses to the Safety Basis Review Team comments.
- BNI released material procurement and fabrication of RLD-7 and RLD-8 vessels. These vessels are located in the wet process cell and must be installed prior to concrete slab placement, which supports roof installation. Fabrication of these vessels is underway.
- BNI completed disposition of D&O comments.
- BNI completed NQA-1 HEPA filter qualification testing of the “Design 4” safe-change and remote-change filters.

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

- BNI to issue the final D&O report to ORP summarizing disposition of D&O comments.
- ORP to perform comment resolution of the draft PDSA update.
- BNI to issue reports associated with the full-scale testing and final selection of HEPA filters supporting the ventilation and offgas systems of HLW and LBL facilities.
- BNI to continue with facility preservation and maintenance activities.

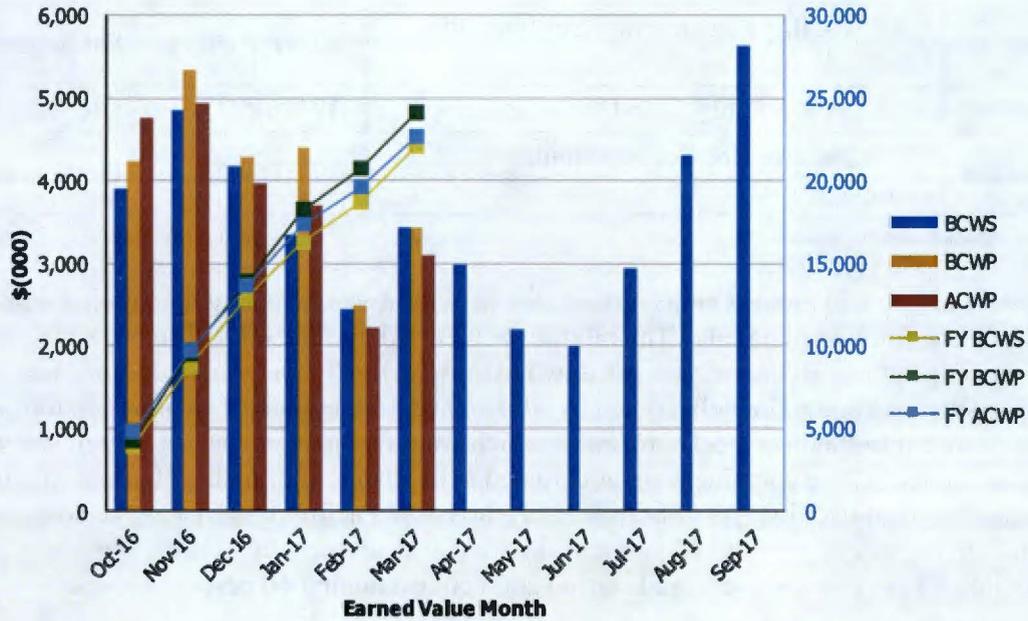
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2017 Earned Value Data

Data as of: March 2017

**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 2016	\$3,910	\$4,231	\$4,761	1.08	0.89	\$3,910	\$4,231	\$4,761	1.08	0.89
Nov 2016	\$4,855	\$5,337	\$4,930	1.10	1.08	\$8,766	\$9,568	\$9,692	1.09	0.99
Dec 2016	\$4,163	\$4,292	\$3,960	1.03	1.08	\$12,929	\$13,860	\$13,652	1.07	1.02
Jan 2017	\$3,343	\$4,387	\$3,702	1.31	1.19	\$16,271	\$18,247	\$17,354	1.12	1.05
Feb 2017	\$2,439	\$2,491	\$2,225	1.02	1.12	\$18,710	\$20,738	\$19,579	1.11	1.06
Mar 2017	\$3,425	\$3,427	\$3,098	1.00	1.11	\$22,135	\$24,165	\$22,676	1.09	1.07
Apr 2017	\$2,992									
May 2017	\$2,202									
Jun 2017	\$2,001									
Jul 2017	\$2,946									
Aug 2017	\$4,297									
Sep 2017	\$5,632									

PTD	\$1,305,166	\$1,305,746	\$1,283,672	1.00	1.02
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ACWP = actual cost of work performed.  
 BCWP = budgeted cost of work performed.  
 BCWS = budgeted cost of work scheduled.  
 CPI = cost performance index.

CTD = contract to date.  
 EVMS = earned value management system.  
 FY = fiscal year.  
 SPI = schedule performance index.

## Low-Activity Waste Facility

**Federal Project Director:** Bill Hamel

**Facility Federal Project Director:** Jeff Bruggeman

Milestone	Title	Due Date	Status
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2020	On Schedule
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2022	On Schedule
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2023	On Schedule

LAW = low-activity waste.

The LAW Facility will process concentrated low-activity waste, which will be mixed with silica and other glass-forming materials. The mixture will be fed into the LAW Facility's two melter at a design capacity of 30 metric tons per day, heated to 2,100°F, and vitrified into glass. The 300-ton melter is approximately 20 feet by 30 feet and 16 feet high. The glass mixture will then be poured into stainless steel containers, which are 4 feet in diameter, 7 feet tall, and weigh more than 7 tons. These containers are anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of March 2017, the LAW Facility was 61 percent complete overall, with engineering design 82 percent complete, procurement 76 percent complete, construction 85 percent complete, and startup and commissioning 10 percent complete.

### Significant Accomplishments during the Prior Three Months:

- BNI completed placement of concrete for the caustic scrubber platform.
- BNI reassembled wet electrostatic precipitator 1 electrodes.
- BNI completed installation of the melter jack-bolts on melter 1 as progress continues on completing the melter.
- BNI provided ORP with the draft LAW PDSA.
- BNI received delivery of the final shipment of caustic scrubber internals and completed installation.
- ORP completed caustic scrubber vessel vertical slice review.
- BNI installed the steel caustic scrubber platform on the greater than the 48-foot elevation (i.e., EL+48).
- BNI completed repairs for the LAW Facility primary offgas system wet electrostatic precipitator vessel nozzle welds.
- BNI completed LAW Facility secondary offgas/vessel vent process system pipe tie-ins at caustic scrubber and thermal catalytic oxidizer.
- BNI installed and tested melter bubblers and completed welding on melter shield lids.

- BNI completed base frame modifications on both melters.
- BNI issued the 90 percent design review reports for the following:
  - C1 ventilation system (C1V)–C5V
  - Radioactive solid waste handling system
  - LAW melter handling system
  - LAW melter equipment support handling system
  - Carbon dioxide gas system
  - Plant cooling water system.

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

- BNI to start assembly of cooling jackets for LAW Facility melter feed process vessels.
- BNI to complete final assembly of melter 1.
- BNI to receive and install redesigned melter jack-bolts for melter 2.
- BNI to reinstall wet electrostatic precipitator internals now that radiographic testing to verify adequacy of welds is complete.
- BNI to perform initial system walkdowns for the following:
  - Chilled water system
  - Domestic (potable) water system
  - C1V.
- ORP to evaluate preliminary hazard category calculation for LAW Facility.
- BNI to develop hazard identification checklist, what-if tables, and process hazard analysis events for accident scenarios to support PDSA update development.
- BNI to install C3V air conditioning unit for offgas exhausters on the greater than the 48-foot elevation (i.e., EL+48).

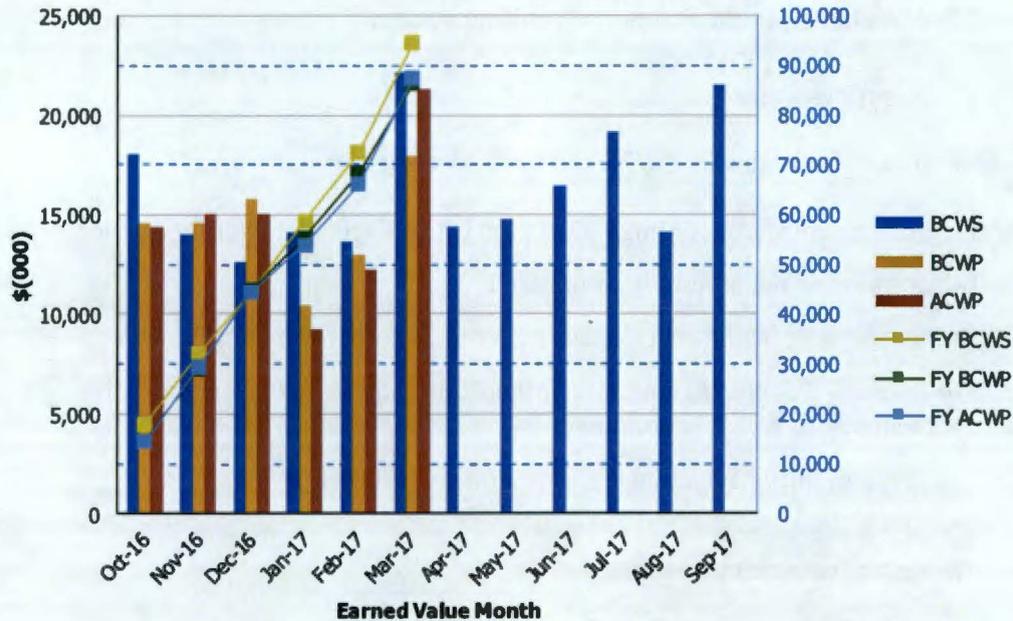
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2017 Earned Value Data

Data as of: March 2017

**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 2016	\$18,055	\$14,539	\$14,396	0.81	1.01	\$18,055	\$14,539	\$14,396	0.81	1.01
Nov 2016	\$14,013	\$14,564	\$15,062	1.04	0.97	\$32,068	\$29,102	\$29,458	0.91	0.99
Dec 2016	\$12,629	\$15,785	\$15,081	1.25	1.05	\$44,697	\$44,887	\$44,539	1.00	1.01
Jan 2017	\$14,122	\$10,498	\$9,286	0.74	1.13	\$58,818	\$55,386	\$53,825	0.94	1.03
Feb 2017	\$13,603	\$12,947	\$12,282	0.95	1.05	\$72,421	\$68,333	\$66,107	0.94	1.03
Mar 2017	\$22,131	\$17,933	\$21,287	0.81	0.84	\$94,552	\$86,266	\$87,395	0.91	0.99
Apr 2017	\$14,370									
May 2017	\$14,730									
Jun 2017	\$16,424									
Jul 2017	\$19,190									
Aug 2017	\$14,105									
Sep 2017	\$21,509									
<b>PTD</b>	<b>\$1,543,582</b>	<b>\$1,524,459</b>	<b>\$1,523,588</b>	<b>0.99</b>	<b>1.00</b>					

- |   |  |
|---|--|
| ACWP = actual cost of work performed.   | CTD = contract to date.                |
| BCWP = budgeted cost of work performed. | EVMS = earned value management system. |
| BCWS = budgeted cost of work scheduled. | FY = fiscal year.                      |
| CPI = cost performance index.           | SPI = schedule performance index.      |

**Balance of Facilities***Federal Project Director:* Bill Hamel*Facility Federal Project Director:* Jason Young

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

BOF will provide services and utilities to support operation of the main production facilities: PT, HLW, LAW, and LAB. As of March 2017, BOF was 65 percent complete overall, with engineering design 84 percent complete, procurement 80 percent complete, construction 92 percent complete, and startup and commissioning 25 percent complete.

Engineering activities continue to support the DFLAW initiative. Current efforts are focused on progressing the design of the Effluent Management Facility (EMF), supporting the EMF dangerous waste permit, supporting EMF procurement activities, and providing field support for BOF startup activities. Construction efforts are focused on rebar and embed placement for the EMF walls, concrete placement for EMF slabs, and completion of the remaining items required for energization of the BOF switchgear building from the WTP switchgear building. Additional construction punch list activities are underway to support turnover of the water treatment building and cooling tower facility to the startup organization for component-level testing.

**Significant Accomplishments during the Prior Three Months:**

- BNI energized the water treatment building (Building 86) from BOF switchgear (Building 91) low voltage permanent power.
- EMF Secondary Containment Dangerous Waste Permit temporary authorization for EMF concrete placement received. Concrete placement of utility building (Building 26) completed, and main process building slab completed with the exception of the low point drain tank and truck bay slabs.
- BNI completed the low point drain tank excavation, placed mudmat, and began rebar placement.
- BNI awarded process tank and vessel procurements for EMF.
- BNI completed turnover of the following systems to its startup organization:
  - Water treatment building process service water system
  - Water treatment building demineralized water system
  - Water treatment building domestic (potable) water system
  - BOF switchgear building low voltage electrical system
  - BOF switchgear building medium voltage electrical system
  - Water treatment building fire detection and alarm system
  - Water treatment building nonradioactive, nondangerous liquid drain system
  - Water treatment building low voltage electrical system
  - Cathodic protection systems

- Cooling tower process control system.
- BNI initiated testing for the cathodic protection system rectifiers.
- BNI completed the functional review of installation of the fire detection and alarm system fire detection equipment in the water treatment building (Building 86) and cooling tower facility (Building 83).
- ORP and the Washington State Department of Ecology provided informal comments to BNI on the EMF Underground Transfer Line Permit package. BNI formally submitted EMF Underground Transfer Line Permit package to ORP.

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

- BNI to issue DFLAW modification drawings for construction for the steam plant.
- BNI to complete nonradioactive liquid waste disposal system functional test.
- BNI expects to turn over the following systems to its startup organization:
  - Steam plant facility low voltage electrical system
  - Cooling tower facility low voltage electrical system
  - Cooling tower facility plant cooling water system
  - Diesel fuel oil facility process control system
  - Diesel fuel oil facility diesel fuel oil system
  - Chiller compressor plant low voltage electrical system
  - Chiller compressor plant fire detection and alarm system
  - Chiller compressor plant chilled water system
  - Chiller compressor plant process control system.
- BNI to award EMF evaporator fabrication.
- BNI to confirm final sizing of new rectifiers for the cathodic protection system through completion of current injection test.
- BNI to complete testing in support of Phase 2 energization to BOF switchgear Building 91.

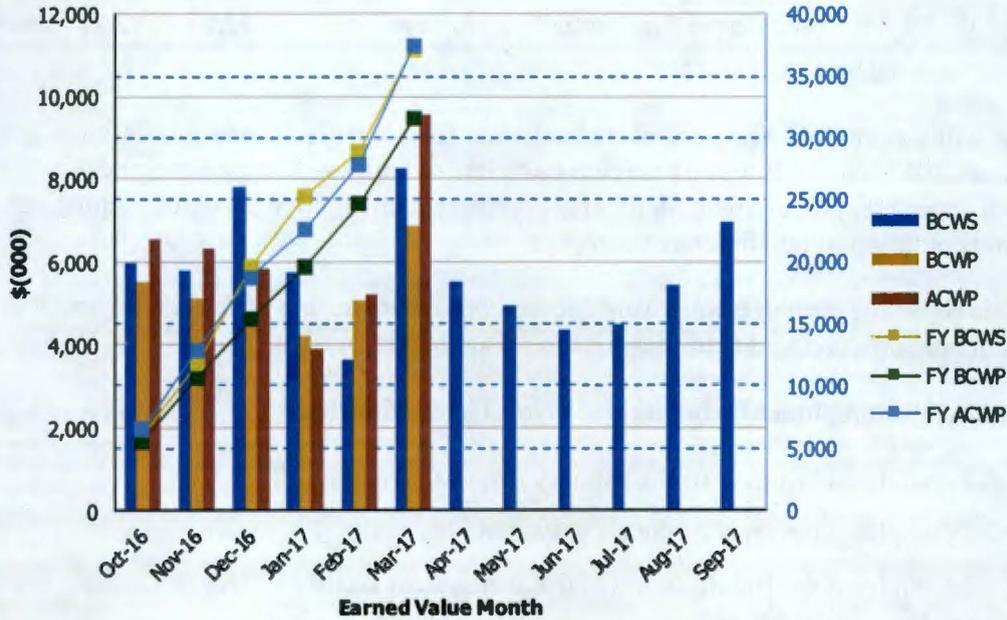
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2017 Earned Value Data

Data as of: March 2017

**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 2016	\$5,977	\$5,519	\$6,535	0.92	0.84	\$5,977	\$5,519	\$6,535	0.92	0.84
Nov 2016	\$5,773	\$5,120	\$6,338	0.89	0.81	\$11,751	\$10,640	\$12,874	0.91	0.83
Dec 2016	\$7,799	\$4,729	\$5,843	0.61	0.81	\$19,549	\$15,369	\$18,717	0.79	0.82
Jan 2017	\$5,754	\$4,219	\$3,918	0.73	1.08	\$25,304	\$19,588	\$22,634	0.77	0.87
Feb 2017	\$3,635	\$5,048	\$5,197	1.39	0.97	\$28,938	\$24,636	\$27,831	0.85	0.89
Mar 2017	\$8,237	\$6,862	\$9,546	0.83	0.72	\$37,175	\$31,498	\$37,378	0.85	0.84
Apr 2017	\$5,529									
May 2017	\$4,909									
Jun 2017	\$4,361									
Jul 2017	\$4,484									
Aug 2017	\$5,437									
Sep 2017	\$6,942									
<b>PTD</b>	<b>\$564,782</b>	<b>\$553,292</b>	<b>\$560,641</b>	<b>0.98</b>	<b>0.99</b>					

- ACWP = actual cost of work performed.
- BCWP = budgeted cost of work performed.
- BCWS = budgeted cost of work scheduled.
- CPI = cost performance index.
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**Analytical Laboratory****Federal Project Director:** Bill Hamel**Facility Federal Project Director:** Jason Young

Milestone	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 2017, the LAB was 65 percent complete overall, with engineering design 81 percent complete, procurement 88 percent complete, construction 96 percent complete, and startup and commissioning 18 percent complete.

During this reporting period, efforts were focused on startup testing of the test engineer's workstation and procurement activities for the offsite laboratory.

**Significant Accomplishments during the Prior Three Months:**

- BNI completed turnover of the sanitary disposal system.
- BNI completed turnover of the C1V system.
- BNI completed the fire detection and alarm system facility battery-drawdown fire protection acceptance test.
- BNI continued final wall and floor coatings.
- BNI continued development of procedures for the WTP analytical methods.
- BNI received the replacement heating, ventilation, and air-conditioning (HVAC) condenser.

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

- BNI to award the temporary laboratory space request for proposal, which allows for earlier laboratory methods development and training to ensure laboratory staff are ready at the start of commissioning.
- ORP and BNI to reach an agreement on proposed C5V modifications, if needed.
- BNI to continue testing control and monitoring systems in the test engineer's workstation to support the nonradioactive liquid waste disposal system functional tests.
- BNI to award procurement for toxicity refrigerant monitor needed for beneficial occupancy.
- BNI to install the replacement HVAC condenser.

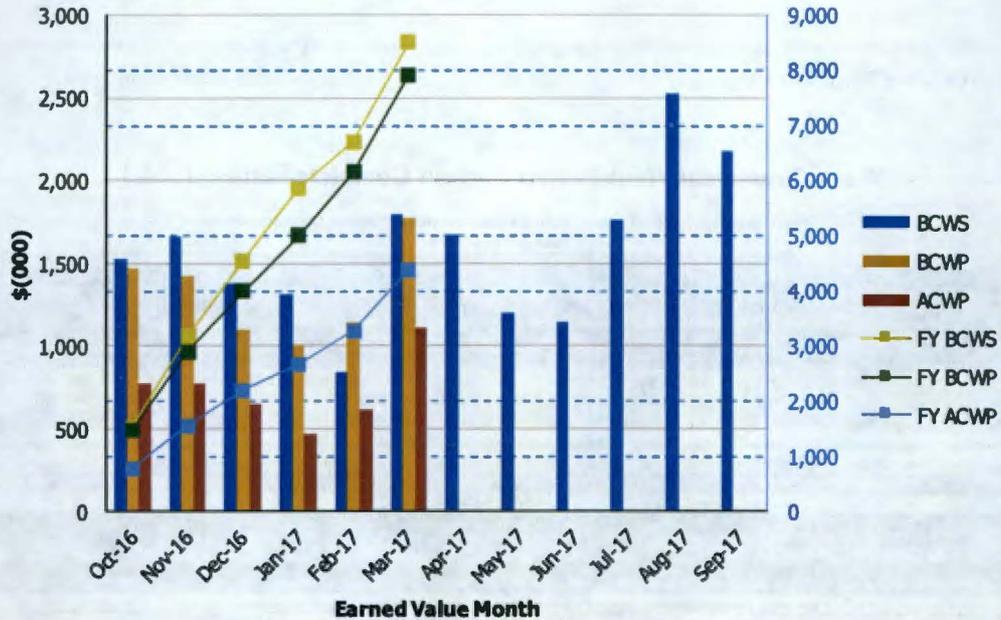
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2017 Earned Value Data

Data as of: March 2017

**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 2016	\$1,521	\$1,470	\$776	0.97	1.89	\$1,521	\$1,470	\$776	0.97	1.89
Nov 2016	\$1,661	\$1,426	\$777	0.86	1.83	\$3,182	\$2,896	\$1,553	0.91	1.86
Dec 2016	\$1,375	\$1,098	\$645	0.80	1.70	\$4,557	\$3,994	\$2,198	0.88	1.82
Jan 2017	\$1,309	\$1,008	\$466	0.77	2.16	\$5,866	\$5,001	\$2,664	0.85	1.88
Feb 2017	\$845	\$1,141	\$612	1.35	1.86	\$6,711	\$6,143	\$3,277	0.92	1.87
Mar 2017	\$1,791	\$1,774	\$1,109	0.99	1.60	\$8,502	\$7,916	\$4,385	0.93	1.81
Apr 2017	\$1,673									
May 2017	\$1,197									
Jun 2017	\$1,144									
Jul 2017	\$1,766									
Aug 2017	\$2,520									
Sep 2017	\$2,178									
<b>PTD</b>	<b>\$347,108</b>	<b>\$344,490</b>	<b>\$333,410</b>	<b>0.99</b>	<b>1.03</b>					

ACWP = actual cost of work performed.  
 BCWP = budgeted cost of work performed.  
 BCWS = budgeted cost of work scheduled.  
 CPI = cost performance index.

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 EVMS = earned value management system.  
 FY = fiscal year.  
 SPI = schedule performance index.

### Waste Treatment Plant Project Percent Complete Status (Table)

Waste Treatment Plant Project - (LBL/Project Services) Percent Complete Status																		
Through March 2017																		
(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	2,285.8	1,395.8	61%	556.0	456.3	82%	373.4	283.0	76%	689.8	588.4	85%	662.5	63.9	10%	4.0	4.0	100%
Balance of Facilities	753.5	491.2	65%	153.9	128.5	84%	72.4	57.8	80%	257.3	236.6	92%	269.5	67.7	25%	0.5	0.5	100%
Analytical Lab	510.0	331.9	65%	108.3	88.1	81%	65.6	57.4	88%	161.3	155.0	96%	174.3	30.9	18%	0.5	0.5	100%
Direct Feed LAW	396.9	105.3	27%	96.4	62.0	64%	56.2	6.3	11%	235.3	32.3	14%	0.0	0.0	0%	9.1	4.7	52%
LBL Facility Services	648.8	195.7	30%	0.0	0.0	0%	59.9	26.3	44%	137.5	49.6	36%	208.9	63.6	30%	242.4	56.1	23%
<b>Total LBL</b>	<b>4,595.1</b>	<b>2,519.8</b>	<b>55%</b>	<b>914.6</b>	<b>735.1</b>	<b>80%</b>	<b>627.5</b>	<b>430.9</b>	<b>69%</b>	<b>1,481.3</b>	<b>1,061.9</b>	<b>72%</b>	<b>1,315.2</b>	<b>226.1</b>	<b>17%</b>	<b>256.5</b>	<b>65.8</b>	<b>26%</b>
Project Services	1,031.1	433.2	42%	131.8	61.7	47%	73.9	38.7	52%	105.5	74.2	70%	1.7	1.7	100%	718.2	257.0	36%
<b>Total Project Services</b>	<b>1,031.1</b>	<b>433.2</b>	<b>42%</b>	<b>131.8</b>	<b>61.7</b>	<b>47%</b>	<b>73.9</b>	<b>38.7</b>	<b>52%</b>	<b>105.5</b>	<b>74.2</b>	<b>70%</b>	<b>1.7</b>	<b>1.7</b>	<b>100%</b>	<b>718.2</b>	<b>257.0</b>	<b>36%</b>
<b>Total LBL, DFLAW &amp; Project Services</b>																		
	<b>5,626.2</b>	<b>2,953.0</b>	<b>52%</b>	<b>1,046.4</b>	<b>796.8</b>	<b>76%</b>	<b>701.4</b>	<b>469.5</b>	<b>67%</b>	<b>1,586.8</b>	<b>1,136.1</b>	<b>72%</b>	<b>1,317.0</b>	<b>227.8</b>	<b>17%</b>	<b>974.6</b>	<b>322.8</b>	<b>33%</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>14,349.0</b>	<b>8,918.2</b>	<b>62%</b>	<b>3,219.5</b>	<b>2,745.7</b>	<b>85%</b>	<b>2,266.9</b>	<b>1,594.3</b>	<b>70%</b>	<b>4,474.4</b>	<b>2,900.9</b>	<b>65%</b>	<b>2,075.5</b>	<b>371.0</b>	<b>18%</b>	<b>2,312.7</b>	<b>1,306.3</b>	<b>56%</b>
<b>Source: Preliminary WTP Contract Performance Report - Format 1, Data for March 2017</b>																		
<p><i>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. March 2016 LBL percent complete data is a total of LAW-BOF-LAB-DFLAW and LBL Facility Services. The Project Services Allocation account (zPSA), as shown on the CPR Format 1, is not added to LBL for percent complete purposes.</i></p>																		