

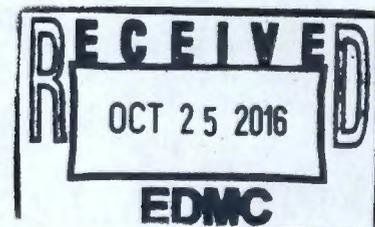
Final

**Office of River Protection
Consent Decree
Monthly Report
October¹ 2016**

**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)²**



¹ The narrative descriptions of progress in this report cover the period from September 1 – 30, 2016. Earned Value Management System data and descriptions cover the period of August 1 – 30, 2016; this includes the facility completion percentage estimates included at various locations in the Waste Treatment and Immobilization section.

² The cited consent decrees are between the State of Washington and 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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CD = Consent Decree

Acronyms and Abbreviations

BCP	Baseline Change Proposal
BNI	Bechtel National, Inc.
BOF	Balance of Facilities
C5V	ventilation system for potential contamination zones C5
CD	Consent Decree (<i>State of Washington v. Dept. of Energy</i> , Case No. 2:08-cv-05085-FVS [October 25, 2010]; <i>as amended</i> , Amended Consent Decree, Case No. 2:08-cv-05085-RMP [March 11, 2016]; <i>as amended</i> , Second Amended Consent Decree, Case No.2:08-cv-05085-RMP [April 12, 2016])
CV	cost variance
DFLAW	direct-feed low-activity waste
DOE	U.S. Department of Energy
Ecology	Washington State Department of Ecology
EMF	Effluent Management Facility
ERSS	extended reach sluicer 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
HPT	health physicist technician
IHT	industrial hygienist technician
LAB	Analytical Laboratory
LAW	Low-Activity Waste (Facility)
LBL	Low-Activity Waste Facility, Balance of Facilities, and Analytical Laboratory
MARS-V	Mobile Arm Retrieval System-Vacuum
NQA-1	Nuclear Quality Assurance-1
ORP	U.S. Department of Energy, Office of River Protection
PDSA	preliminary documented safety analysis
PJM	pulse-jet mixer
PT	Pretreatment (Facility)
RLD	Radioactive Liquid Waste Disposal System
SHSV	standard high-solids vessel
SV	schedule variance
WRPS	Washington River Protection <i>Solutions</i> LLC
WTP	Waste Treatment and Immobilization Plant

Consent Decree Milestone Statistics/Status

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2020				
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		On Schedule
Fiscal Year 2022				
D-00A-08 Interim	Start LAW Facility Cold Commissioning	12/31/2022		On Schedule
Fiscal Year 2023				
D-00A-09 Interim	LAW Facility Hot Commissioning Complete	12/31/2023		On Schedule
Fiscal Year 2024				
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		On Schedule
Fiscal Year 2030				
D-00A-02 Interim	HLW Facility Construction Substantially Complete	12/31/2030		On Schedule
Fiscal Year 2031				
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

Milestone	Title	Due Date	Completion Date	Status
D-00A-19 Interim	Complete Elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2031		On Schedule
Fiscal Year 2032				
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
Fiscal Year 2033				
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
Fiscal Year 2036				
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: End of month following 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, Due: November 10, 2016, Status: On Schedule

D-006-00-B, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree, Due: December 10, 2016, Status: On Schedule

Spare Reboiler Requirement Status

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

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:

- Since issuance of the March 11, 2016, Amended Consent Decree and the April 12, 2016 Second Amended Consent Decree (CD), the U.S. Department of Energy (DOE) has provided the contractor with funding to accelerate the planned fiscal year (FY) 2017 work to design and procure the spare E-A-1 reboiler. The DOE Office of River Protection (ORP) authorized the Washington River Protection *Solutions*, LLC (WRPS) to proceed by awarding a not-to-exceed contract action. The current procurement strategy is to award a design/build procurement contract with a vendor no later than December 21, 2016.
- Proposals for the design/build of the new spare 242-A Evaporator reboiler have been received by procurement. The technical evaluation of the proposals will be performed on Wednesday, October 5, 2016. Upon completion of the technical evaluation a vendor will be selected for award.

Single-Shell Tank Retrieval Program

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	On Schedule
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	On Schedule

SST = single-shell tank.

WMA-C = C Farm waste management area.

Significant Accomplishments during the Prior Three Months:

- Removed and disposed 15 hose-in-hose transfer lines from C-Farm to Environmental Restoration Disposal Facility (ERDF)
- Prepared the C-102 Retrieval Data Report for submittal to the Washington State Department of Ecology (Ecology)
- Completed C-105 proof of concept for in-tank equipment ((Mobile Arm Retrieval System-Vacuum [MARS-V] modification)
- Completed C-105 MARS-V disassembly to support modifying for slurry pump installation
- Removed C-105 C pit upper and lower cover blocks
- Submitted C-111 Retrieval Completion Certification report to Ecology
- Completed two additional AX Farm pit clean outs
- Completed AX Farm air and water service building exterior construction
- Completed POR126 and POR127 ventilation installation and initial testing
- Received AX-102 and AX-104 extended reach sluicer systems (ERSS) and slurry pumps
- Completed AX Farm ingress and egress change trailers
- Prepared the AX-101 through AX-104 tank waste retrieval work plans for submittal to Ecology
- Completed A-Farm ventilation design.

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 modified sluicing system design
- Clean and prepare C-105 A and C pits for ERSS installation
- Receive C-105 ERSS
- Complete AX air and water service building major utilities installation
- Complete AX ventilation readiness/turnover at portable exhauster POR126 and POR127
- Complete the four remaining AX-102 and AX-104 pit cleanouts

Issues:

- On July 11, 2016, the Hanford Atomic Metal Trades Council (HAMTC), a labor organization composed of various unions working at Hanford, issued a “stop work” requiring mandatory use of supplied air within the perimeter fence lines of both single- and double-shell tank farms. This letter also included six other demands HAMTC expected WRPS to implement immediately. On July 21, 2016, the Washington State Attorney General and Citizens (Local Union 598 and Hanford Challenge) filed motions for preliminary injunction in federal court (Case 4:15-cv-05086-TOR) seeking, among other things, that all work inside the perimeter fences of any tank farm be performed while wearing *mandatory* supplied air. This stop work and interim measures associated with the motions for preliminary injunction has slowed and/or delayed field work at the AX and C farms. For example the AX-102 and AX-104 retrieval construction (removal of legacy/long length equipment) is affected by not being able to operate the tank-specific ventilation system. DOE and WRPS continue to evaluate near-term and long-term impacts of these actions though at this time we have not determined the effect, if any, on Consent Decree milestones. Due to the prior technical challenges related to completing retrievals at Tank 241-C-102 and Tank 241-C-111, and the current modifications to Tank 241-C-105, funding will be needed to complete Tank 241-AX-102 and Tank 241-AX-104 tank retrieval system(s) installation through FY 2018 with retrieval operations starting in FY 2019 to meet milestone D-16B-03 by December 31, 2020.
- ORP submitted letter 16-TF-0102, “Status Update Related to Tank Farm Vapors,” on September 15, 2016, to make certain Ecology is aware of several recent events regarding the Hanford tank farms retrieval activities, to pass along relevant information, and provide updates on the status of ongoing processes related to those vapor events and their mitigation. Both ORP and WRPS are assessing these events for potential impacts to Consent Decree milestones.

Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
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	Complete	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	First Retrieval Technology	Second Technology	Third Technology
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.

TBD = to be determined.

TWRWP = tank waste retrieval work plan.

V = vacuum.

Significant Accomplishments:

- AX Farm Tank Waste Retrieval Work Plan drafts were reviewed by Ecology and are going through final revision at ORP.
- Modification to RPP-22520, 241-C-101 and 241-C-105 Tanks Waste Retrieval Work Plan to include a third technology for Tank C-105 retrieval was approved by the Washington State Department of Ecology and is in process of being revised.

Significant Planned Activities in the Next Three Months:

- Finalize AX Farm Tank Retrieval Work Plans

Issues:

- None.

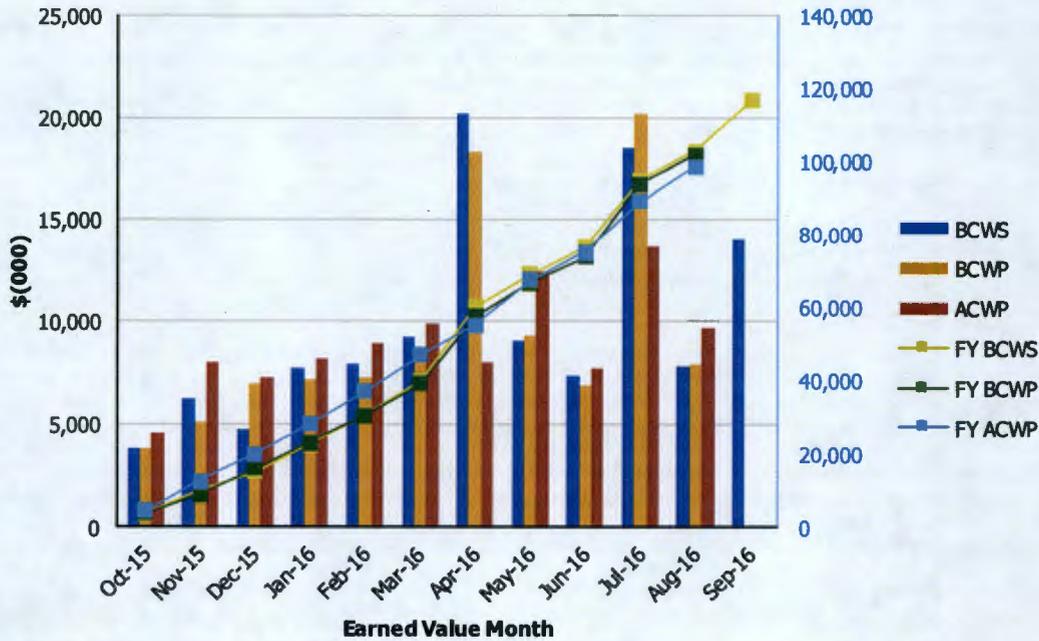
EXC-01a: Fiscal Year Cost and Schedule Report

Earned Value Data: Fiscal Year 2016

August-16

**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 2015	\$3,770	\$3,814	\$4,560	1.01	0.84	\$3,770	\$3,814	\$4,560	1.01	0.84
Nov 2015	\$6,282	\$5,131	\$8,006	0.82	0.64	\$10,052	\$8,946	\$12,566	0.89	0.71
Dec 2015	\$4,769	\$6,970	\$7,255	1.46	0.96	\$14,821	\$15,915	\$19,821	1.07	0.80
Jan 2016	\$7,702	\$7,214	\$8,233	0.94	0.88	\$22,522	\$23,130	\$28,053	1.03	0.82
Feb 2016	\$7,948	\$7,288	\$8,959	0.92	0.81	\$30,470	\$30,417	\$37,012	1.00	0.82
Mar 2016	\$9,249	\$8,693	\$9,857	0.94	0.88	\$39,719	\$39,111	\$46,869	0.98	0.83
Apr 2016	\$20,237	\$18,288	\$8,046	0.90	2.27	\$59,956	\$57,399	\$54,916	0.96	1.05
May 2016	\$9,013	\$9,299	\$12,417	1.03	0.75	\$68,970	\$66,698	\$67,333	0.97	0.99
Jun 2016	\$7,387	\$6,885	\$7,713	0.93	0.89	\$76,357	\$73,584	\$75,045	0.96	0.98
Jul 2016	\$18,511	\$20,234	\$13,683	1.09	1.48	\$94,867	\$93,817	\$88,728	0.99	1.06
Aug 2016	\$7,831	\$7,971	\$9,736	1.02	0.82	\$102,698	\$101,788	\$98,464	0.99	1.03
Sep 2016	\$13,992					\$116,690				
CTD	\$695,176	\$687,016	\$708,437	0.99	0.97					

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 August variances have no impact on Consent Decree

The current month **favorable** schedule variance (SV) of \$140K is due to:

- Schedule Recovery – Four (4) Extended Reach Sluicer System (ERSS) to support AX Farm retrieval were received and accepted (green-tagged) in August.

The current month **unfavorable** cost variance (CV) of (\$1,765K) is due to:

- Additional field support was required to complete Portable Exhauster (POR126) testing (AX Farm) because of required instrumentation re-calibration, and minor repairs of that instrumentation.
- Tank AX-102 and AX-104 pit clean out activities of legacy equipment was limited because health physicist technician and industrial hygienist technician (HPT/IHT) staff supporting these activities were diverted to Tank Farm minimum – safe operations at Double Shell Tank Farms which now required Self-Contained Breathing Apparatus for field operations personnel.

Waste Treatment and Immobilization Plant Project

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 3,091 full-time equivalent contractor Bechtel National, Inc. (BNI) and subcontractor personnel. This includes 625 craft, 471 non-manual, and 149 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 August 2016, LBL facilities were 49 percent complete, design and engineering was 75 percent complete, procurement was 64 percent complete, construction was 66 percent complete, and startup and commissioning was 12 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:

- ORP began presentations to the Energy System Acquisition Advisory Board (ESAAB) for approval of the Baseline Change Proposal (BCP) for LBL/DFLAW by the Chief Executive for Project Management.

Significant Planned Activities in the Next Three Months:

- Contract negotiations with BNI to define and finalize the new LBL/DFLAW scope into the contract have been ongoing and are expected to be completed by the end of the calendar year.
- Continue presentations to the ESAAB and the Deputy Energy Secretary on the new BCP for LBL/DFLAW for the WTP Project.

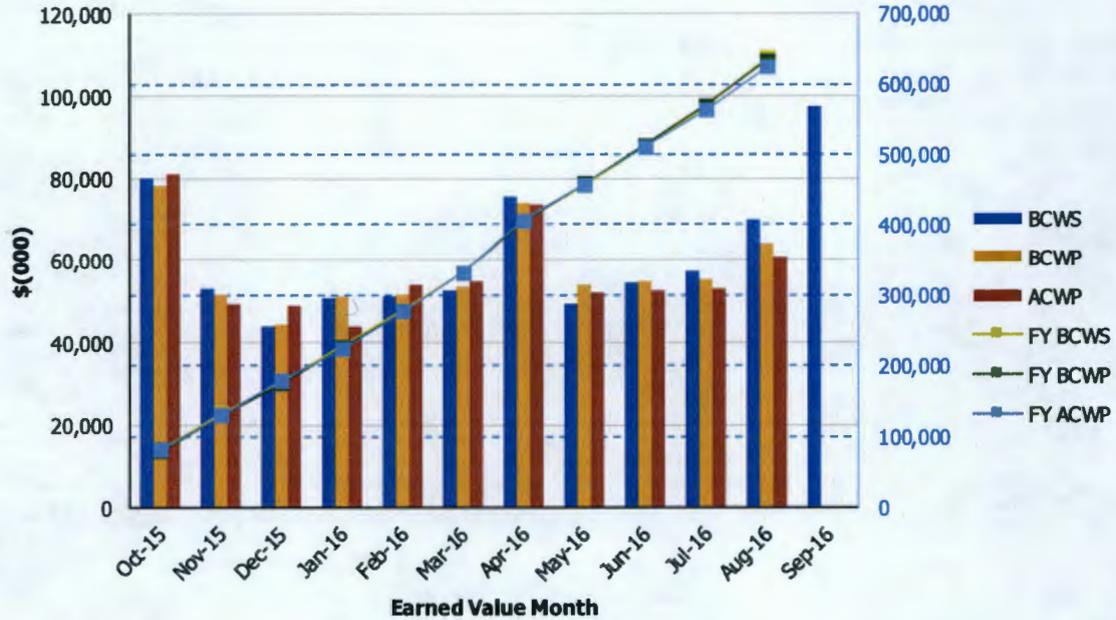
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: August 2016

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 2015	\$79,800	\$78,230	\$81,000	0.98	0.97	\$79,800	\$78,230	\$81,000	0.98	0.97
Nov 2015	\$52,815	\$51,614	\$49,184	0.98	1.05	\$132,615	\$129,844	\$130,184	0.98	1.00
Dec 2015	\$43,659	\$44,505	\$48,853	1.02	0.91	\$176,275	\$174,348	\$179,037	0.99	0.97
Jan 2016	\$50,515	\$51,167	\$43,662	1.01	1.17	\$226,790	\$225,515	\$222,699	0.99	1.01
Feb 2016	\$51,349	\$51,492	\$54,112	1.00	0.95	\$278,139	\$277,007	\$276,811	1.00	1.00
Mar 2016	\$52,395	\$53,645	\$54,896	1.02	0.98	\$330,533	\$330,653	\$331,707	1.00	1.00
Apr 2016	\$75,610	\$74,244	\$73,679	0.98	1.01	\$406,144	\$404,897	\$405,387	1.00	1.00
May 2016	\$49,478	\$53,800	\$51,914	1.09	1.04	\$455,622	\$458,697	\$457,300	1.01	1.00
Jun 2016	\$54,203	\$54,759	\$52,382	1.01	1.05	\$509,825	\$513,456	\$509,682	1.01	1.01
Jul 2016	\$56,934	\$55,273	\$52,892	0.97	1.05	\$566,759	\$568,728	\$562,574	1.00	1.01
Aug 2016	\$69,800	\$64,085	\$60,594	0.92	1.06	\$636,559	\$632,814	\$623,168	0.99	1.02
Sep 2016	\$97,626									
PTD	\$9,736,323	\$9,712,360	\$9,640,970	1.00	1.01					

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.

Project Schedule and Cost Variance Performance

Performance Tracking	SV (\$x1,000)	CV (\$x1,000)
Current Period (Aug 2016)	(-\$5,715)	\$3,492
Fiscal Year 2016 to-date	(-\$3,745)	\$9,646
Cumulative (through Aug 2016)	(-\$23,962)	\$71,390

SV = schedule variance.

CV = cost variance.

Earned Value Management System Analysis

The August **unfavorable** schedule variance (SV) of approximately **\$5.7 million** is primarily due to the following:

- LBL has an overall unfavorable schedule variance of \$3.1 million. LBL construction has an unfavorable variance of \$2.0 million due primarily to a delay in subcontractor work to install Heat Trace and Insulation on pipes lines to support DFLAW, as well as a delay in the settlement with a subcontractor to cover unexpected costs of maintaining its temporary trailer on the construction site while the subcontractor work is being rescheduled. LBL engineering has an unfavorable variance of \$1.0 million because of delays in development of the Preliminary Documented Safety Analysis (PDSA), which has delayed procurements because the PDSA must be in alignment with the design prior to awarding these procurements. In addition, engineering is behind in completing revised drawings for the planned steam plant modifications.
- HLW has an overall unfavorable variance of \$1.2 million. Plant equipment has an unfavorable variance of \$0.9 million due primarily to delays in completing equipment drawings. In addition, construction has an unfavorable variance of \$0.2 million due to piping work completed in prior periods, and the liner plate subcontractor demobilization taking longer than planned.

The August **favorable** cost variance (CV) of approximately **\$3.5 million** is primarily due to the following:

- LBL has an overall favorable cost variance of \$2.3 million. LBL engineering has a favorable variance of \$3.9 million due to lower than planned labor costs. This is offset by an LBL construction unfavorable variance of \$1.0 million, which is due primarily to the early delivery of the majority of EMF rebar, which was originally planned to be delivered over the course of the year.
- Project Services has a favorable variance of \$0.9 million. General/Other Services has a favorable variance of \$0.6 million and procurement has a favorable variance of \$0.3 million, each due to staffing being under planned levels.

Through the current monthly reporting period, there are no schedule or cost variances impacting current Consent Decree milestones.

Pretreatment Facility

Milestone	Title	Due Date	Status
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 Pretreatment (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.

ORP continues to focus on resolving five outstanding WTP technical issues as described in the Amended Consent Decree (CD) (i.e., preventing potential hydrogen buildup, preventing criticality, ensuring control of the pulse-jet mixers [PJM], protecting against possible erosion and corrosion, and ensuring ventilation balancing), while performing hazards analyses, and completing safety evaluations for process systems in accordance with the revised PT Facility Three-Year Interim Work Plan.

The WTP Project has made sustained progress on resolution of the five outstanding technical issues. ORP expects to attain resolution and closure of the two nuclear safety technical issues, "Preventing Potential Hydrogen Build-Up" and "Preventing Criticality," by the end of 2016. Work will continue past 2016 on resolving the remaining three issues. ORP has worked with BNI to develop closure packages for each technical issue, defining work scope, required deliverables, and technical issue closure criteria.

Significant Accomplishments during the Prior Three Months:

- BNI submitted hydrogen in piping and ancillary vessels (HPAV) Preliminary Document Safety Analysis Change Package to ORP.
- BNI installed standard high-solids vessel (SHSV) in the full-scale test facility at Atkins Engineering Laboratory.
- BNI started SHSV in-process design review.
- BNI completed ¼-scale jet impingement test.
- BNI completed concrete placement in the Simulant Storage Facility.

- BNI started test prep for stress corrosion cracking.

Significant Planned Activities in the Next Three Months:

- ORP to complete technical issue resolution of preventing potential hydrogen build-up, including hydrogen gas events in vessels and hydrogen in piping and ancillary vessels.
- ORP to complete technical issue resolution of preventing criticality, including criticality in Pulse-Jet Mixer (PJM) vessels.
- ORP closure of Conditions of Approval for Criticality in PJM Vessels.
- ORP approval of hydrogen in piping and ancillary vessels (HPAV) package (issue Safety Evaluation Report).
- BNI to install PJM level instrument.
- BNI to issue SHSV-Design test plan to ORP.
- BNI to complete Conceptual Design Plan and issue for ORP review.
- BNI to issue preliminary structural analysis of SHSV Design Plant Study for complete Conceptual Design Plan and issue for ORP review for Design Review Notice.

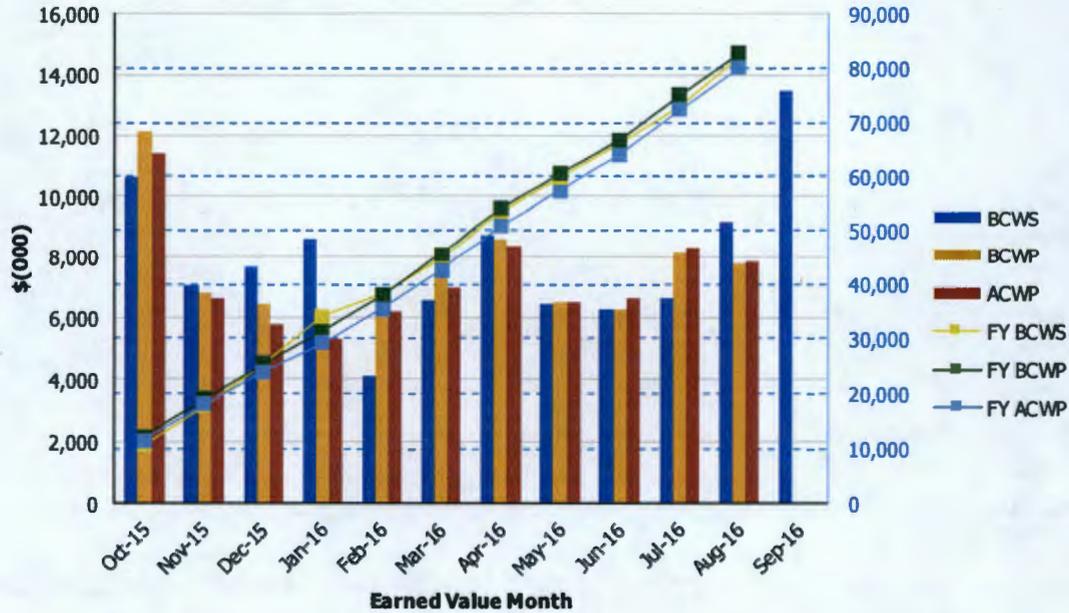
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: August 2016

**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 2015	\$10,667	\$12,155	\$11,441	1.14	1.06	\$10,667	\$12,155	\$11,441	1.14	1.06
Nov 2015	\$7,074	\$6,836	\$6,648	0.97	1.03	\$17,741	\$18,991	\$18,089	1.07	1.05
Dec 2015	\$7,678	\$6,441	\$5,777	0.84	1.11	\$25,419	\$25,432	\$23,867	1.00	1.07
Jan 2016	\$8,595	\$5,853	\$5,332	0.68	1.10	\$34,014	\$31,285	\$29,199	0.92	1.07
Feb 2016	\$4,105	\$6,545	\$6,220	1.59	1.05	\$38,120	\$37,830	\$35,419	0.99	1.07
Mar 2016	\$6,588	\$7,604	\$6,979	1.15	1.09	\$44,708	\$45,434	\$42,398	1.02	1.07
Apr 2016	\$8,717	\$8,586	\$8,400	0.99	1.02	\$53,425	\$54,020	\$50,798	1.01	1.06
May 2016	\$6,434	\$6,485	\$6,523	1.01	0.99	\$59,859	\$60,506	\$57,321	1.01	1.06
Jun 2016	\$6,249	\$6,258	\$6,630	1.00	0.94	\$66,108	\$66,764	\$63,951	1.01	1.04
Jul 2016	\$6,618	\$8,129	\$8,311	1.23	0.98	\$72,726	\$74,893	\$72,262	1.03	1.04
Aug 2016	\$9,132	\$7,794	\$7,844	0.85	0.99	\$81,858	\$82,687	\$80,107	1.01	1.03
Sep 2016	\$13,469									

PTD	\$9,736,323	\$9,712,360	\$9,640,970	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. |

High-Level Waste Facility

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 High-Level Waste (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 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. Physical percent complete for the HLW and PT facilities were frozen as of September 2012, pending development of a revised baseline to address technical and design issues.

HLW Facility activities were being performed in accordance with the fiscal year (FY) 2015 and FY 2016, Two-Year Interim Work Plan. Work activities are currently being performed in accordance with the five-year, FY 2017 – FY 2021 plan put into place in September 2016. Efforts are still focused on completing activities required to obtain full-production authorization. Limited construction is continuing with the concrete placements, installation of support steel, and crane rails in the melter caves. Ecology has been recently briefed on the five-year plan.

Engineering is focused on activities to support implementation of technical core team recommendations, performance of engineering studies, and analysis to disposition design and operability review comments. Phase II of the HLW Facility melter off-gas treatment process/process vessel vent engineering study is evaluating the options from the Phase I study to improve the design and operability. Design of the remaining portions of the radioactive liquid disposal (RLD) system (Phase II) is in progress following incorporation of the recently approved RLD Preliminary Documented Safety Analysis (PDSA) Change Package.

The HLW Facility PDSA update to align design and the safety basis is progressing well, and the final draft is expected to be submitted to ORP in late October 2016.

System design requirements are being populated in the Requirements Verification Matrix (RVM) to ensure they are incorporated into the facility design and subsequently verified prior to completion of HLW Facility commissioning.

Nuclear Quality Assurance-1 (NQA-1) qualification testing of the full-scale filter designs at Mississippi State University is ongoing. All testing of the filter “Design 4” for the safe-change housings have been completed successfully. Testing for the remote-change filters are ready to start in late October, once fabricated by the vendor.

Significant Accomplishments during the Prior Three Months:

- Completed NQA-1 high-efficiency particulate air (HEPA) filter qualification testing of the “Design 4” safe-change filters.
- Issued and implemented the HLW Facility Five-Year Work Plan.
- Issued decontamination handling system engineering study.
- Completed HLW Facility melter handling system and HLW Facility off-gas process system Phase I engineering studies to disposition some of the design and operability issues and recommendations.
- Issued HLW Facility hazards analysis to support PDSA update.
- Released material procurement and fabrication of RLD-8. RLD-8 is located in the Wet Process Cell and must be installed prior to concrete slab placement to support roof installation.

Significant Planned Activities in the Next Three Months:

- Complete full-scale testing of remote-change HEPA filters that support the ventilation and off-gas systems of HLW and PT facilities.
- Release material procurement and fabrication for vessel RLD-7.
- Issue the radioactive waste handling system and melter cave support handling system engineering studies.
- Issue an engineering study detailing the potential addition of a melter assembly building/airlock and an additional import/export dock for waste handling.
- Submit draft PDSA revision to ORP.
- Continue civil build-out of the HLW Facility focusing on weathering in the building.

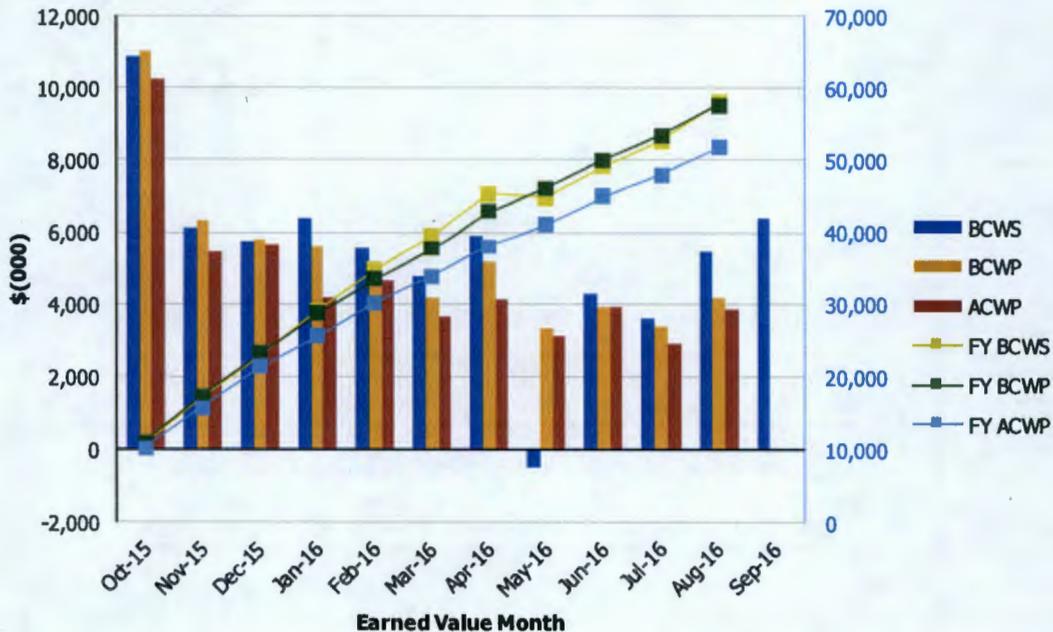
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: August 2016

**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 2015	\$10,905	\$11,028	\$10,257	1.01	1.08	\$10,905	\$11,028	\$10,257	1.01	1.08
Nov 2015	\$6,103	\$6,326	\$5,452	1.04	1.16	\$17,008	\$17,355	\$15,708	1.02	1.10
Dec 2015	\$5,737	\$5,795	\$5,634	1.01	1.03	\$22,745	\$23,150	\$21,343	1.02	1.08
Jan 2016	\$6,368	\$5,591	\$4,174	0.88	1.34	\$29,113	\$28,741	\$25,517	0.99	1.13
Feb 2016	\$5,551	\$4,711	\$4,631	0.85	1.02	\$34,664	\$33,453	\$30,148	0.97	1.11
Mar 2016	\$4,740	\$4,169	\$3,673	0.88	1.14	\$39,405	\$37,622	\$33,821	0.95	1.11
Apr 2016	\$5,921	\$5,168	\$4,141	0.87	1.25	\$45,325	\$42,789	\$37,962	0.94	1.13
May 2016	(\$497)	\$3,353	\$3,116	-6.74	1.08	\$44,828	\$46,143	\$41,078	1.03	1.12
Jun 2016	\$4,259	\$3,918	\$3,904	0.92	1.00	\$49,087	\$50,060	\$44,982	1.02	1.11
Jul 2016	\$3,616	\$3,394	\$2,935	0.94	1.16	\$52,703	\$53,454	\$47,917	1.01	1.12
Aug 2016	\$5,413	\$4,167	\$3,879	0.77	1.07	\$58,116	\$57,622	\$51,796	0.99	1.11
Sep 2016	\$6,381									

PTD	\$1,259,404	\$1,257,887	\$1,237,926	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.
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- FY = fiscal year.
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Low-Activity Waste Facility

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 Low-Activity Waste (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 melters at a design capacity of 30 metric tons per day, and heated to 2,100°F and vitrified into glass. The 300-ton melters are 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 August 2016, the LAW Facility was 56 percent complete overall, with engineering design 78 percent complete, procurement 72 percent complete, construction 81 percent complete, and startup and commissioning 7 percent complete.

Significant Accomplishments during the Prior Three Months:

- Started non-destructive examination (NDE) on Wet Electrostatic Precipitator (WESP) vessels.
- Temporarily installed bubbler in melter #1 to insure proper fit-up of melter shield lid.
- The 45-day public review comment period for the Dangerous Waste Permit for the LAW Facility melters concluded on September 30, 2016. BNI, ORP and Ecology are working to resolve all comments received.
- Installed 60 linear feet of process piping.
- Installed 590 linear feet of conduit and pulled 6,710 linear feet of cable.
- Installed 24 process area penetration seals.

Significant Planned Activities in the Next Three Months:

- Weld shield lids onto the melters.
- Install melter off-gas caustic scrubber.
- Evaluate preliminary hazard category calculation for LAW Facility.
- Continue the rebaselining review process.
- Perform additional melter base welds to support seismic analysis.

- Address public comments and receive approval of melter dangerous waste permits. BNI, ORP and Ecology will work to resolve all comments received.
- Complete radiographic testing on the caustic scrubber and deliver the vessel.
- Start procurement evaluation process for the spare melter.
- Continue installation of LAW Facility secondary off-gas/vessel vent process system pipe tie-ins between thermal catalytic oxidizer and ammonia skid.
- Develop hazard identification checklist, what-if tables, and process hazard analysis events for accident scenarios to support preliminary documented safety analysis (PDSA) update development.

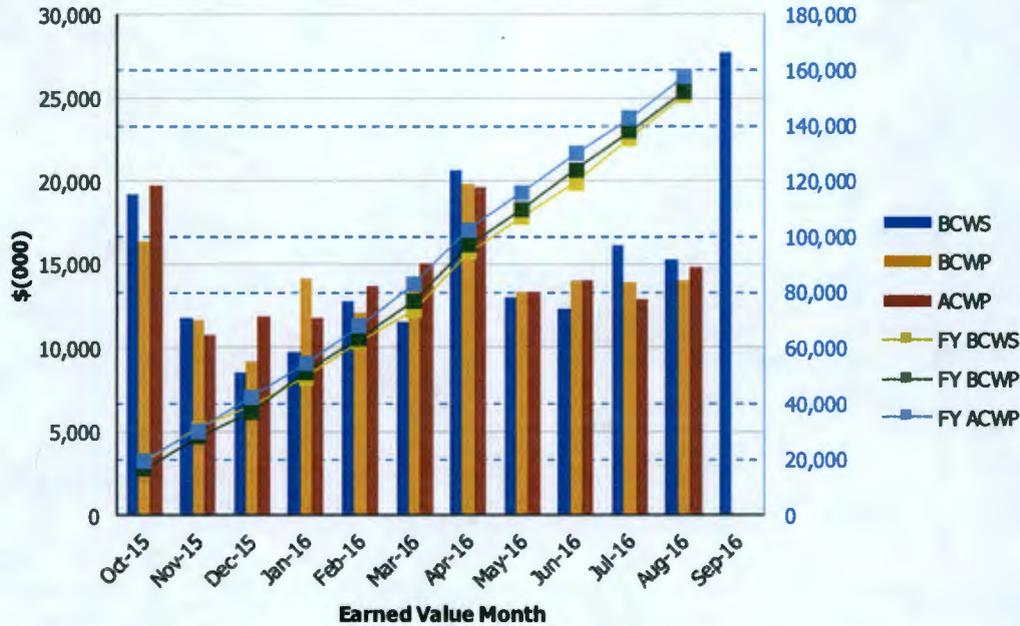
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: August 2016

**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 2015	\$19,131	\$16,406	\$19,702	0.86	0.83	\$19,131	\$16,406	\$19,702	0.86	0.83
Nov 2015	\$11,764	\$11,637	\$10,735	0.99	1.08	\$30,896	\$28,043	\$30,436	0.91	0.92
Dec 2015	\$8,520	\$9,132	\$11,880	1.07	0.77	\$39,416	\$37,175	\$42,316	0.94	0.88
Jan 2016	\$9,694	\$14,071	\$11,790	1.45	1.19	\$49,110	\$51,245	\$54,105	1.04	0.95
Feb 2016	\$12,760	\$12,055	\$13,698	0.94	0.88	\$61,870	\$63,300	\$67,804	1.02	0.93
Mar 2016	\$11,541	\$13,513	\$14,986	1.17	0.90	\$73,411	\$76,814	\$82,790	1.05	0.93
Apr 2016	\$20,619	\$19,828	\$19,641	0.96	1.01	\$94,030	\$96,641	\$102,431	1.03	0.94
May 2016	\$13,012	\$13,289	\$13,364	1.02	0.99	\$107,042	\$109,930	\$115,795	1.03	0.95
Jun 2016	\$12,326	\$14,005	\$13,959	1.14	1.00	\$119,369	\$123,936	\$129,754	1.04	0.96
Jul 2016	\$16,183	\$13,956	\$12,866	0.86	1.08	\$135,552	\$137,891	\$142,620	1.02	0.97
Aug 2016	\$15,223	\$14,054	\$14,758	0.92	0.95	\$150,775	\$151,945	\$157,378	1.01	0.97
Sep 2016	\$27,670									

PTD	\$1,368,973	\$1,360,201	\$1,358,867	0.99	1.00
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ACWP = actual cost of work performed.
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 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

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Balance of Facilities

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

The Balance of Facilities (BOF) will provide services and utilities to support operation of the main production facilities: PT, HLW, LAW and LAB. As of August 2016, BOF was 60 percent complete overall, with engineering design 80 percent complete, procurement 76 percent complete, construction 87 percent complete, and startup and commissioning 19 percent complete.

Engineering activities continue in support of the DFLAW initiative. Current efforts are focused on progressing the design of the Effluent Management Facility (EMF), providing documents to support the EMF Secondary Containment Permit, and supporting procurement activities. Construction efforts are focused on rebar placement for the EMF basemat and completion of the remaining items required for energization of the BOF switchgear building from the WTP switchgear building.

Significant Accomplishments during the Prior Three Months:

- Completed initial energization of Building 87.
- Completed the acceptance test report for switchgear Building 87 and Building 91.
- Completed 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).
- Performed 60 percent design review of EMF, including representation from BNI, ORP and Ecology.
- Completed remaining fire protection activities to support turnover testing activities for switchgear Building 87 and Building 91.
- Completed rectifier installation as part of the WTP cathodic protection system upgrade effort.
- Initiated bid evaluations and the selection process for the EMF evaporator subcontract.

Significant Planned Activities in the Next Three Months:

- Complete energized testing in support of Phase 2 energization to BOF switchgear Building 91
- Resolve comments and submit the Secondary Containment Dangerous Waste Permit
- Implement Preliminary Documented Safety Analysis (PDSA) Condition of Approval 2
- Begin placement of the construction aids (soldier piles) that support excavation of EMF low point drain.

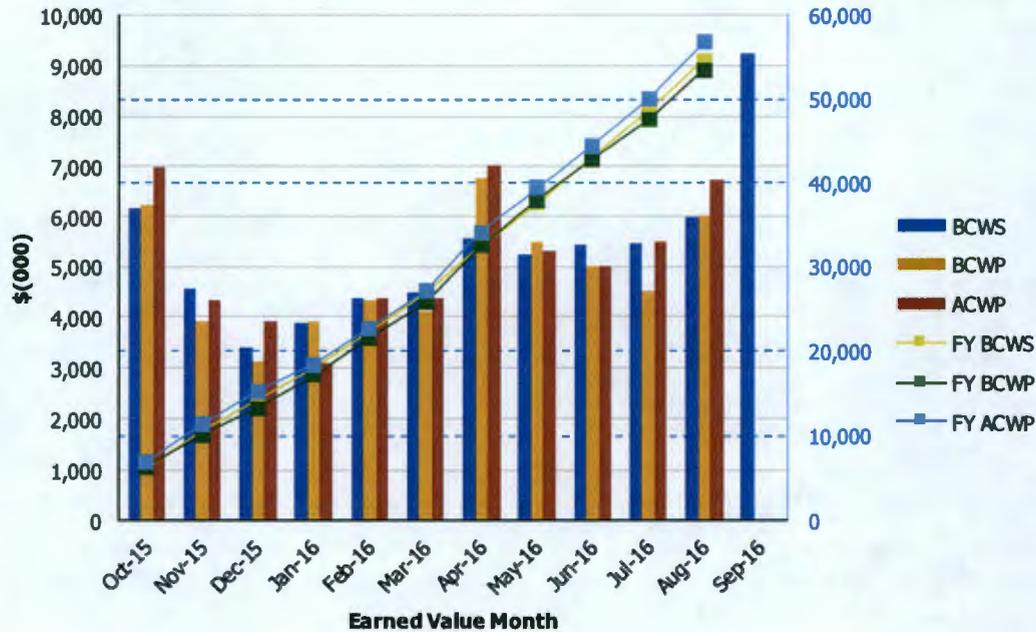
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: August 2016

**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 2015	\$6,160	\$6,249	\$7,006	1.01	0.89	\$6,160	\$6,249	\$7,006	1.01	0.89
Nov 2015	\$4,555	\$3,913	\$4,344	0.86	0.90	\$10,715	\$10,162	\$11,350	0.95	0.90
Dec 2015	\$3,400	\$3,134	\$3,917	0.92	0.80	\$14,115	\$13,296	\$15,267	0.94	0.87
Jan 2016	\$3,874	\$3,917	\$3,108	1.01	1.26	\$17,989	\$17,214	\$18,375	0.96	0.94
Feb 2016	\$4,367	\$4,344	\$4,357	0.99	1.00	\$22,356	\$21,557	\$22,732	0.96	0.95
Mar 2016	\$4,492	\$4,111	\$4,381	0.92	0.94	\$26,848	\$25,668	\$27,113	0.96	0.95
Apr 2016	\$5,581	\$6,780	\$7,042	1.21	0.96	\$32,429	\$32,448	\$34,155	1.00	0.95
May 2016	\$5,233	\$5,511	\$5,307	1.05	1.04	\$37,662	\$37,959	\$39,461	1.01	0.96
Jun 2016	\$5,435	\$4,995	\$5,016	0.92	1.00	\$43,097	\$42,954	\$44,477	1.00	0.97
Jul 2016	\$5,446	\$4,537	\$5,483	0.83	0.83	\$48,543	\$47,491	\$49,960	0.98	0.95
Aug 2016	\$5,998	\$6,009	\$6,743	1.00	0.89	\$54,540	\$53,500	\$56,703	0.98	0.94
Sep 2016	\$9,228									
PTD	\$484,035	\$478,701	\$480,326	0.99	1.00					

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.
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 SPI = schedule performance index.

Analytical Laboratory

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

LAB = analytical laboratory.

The Analytical Laboratory (LAB) will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of August 2016, the LAB was 61 percent complete overall, with engineering design 80 percent complete, procurement 88 percent complete, construction 95 percent complete, and startup and commissioning 13 percent complete.

During this reporting period, efforts were focused on evaluating options for the C5 ventilation system (C5V) in the DFLAW configuration, location of in-town laboratory options, and finalizing the trend for delaying laboratory startup efforts.

Significant Accomplishments during the Prior Three Months:

- BNI completed installation of the test engineers' workstation and turned equipment over to startup.
- BNI completed turnover of the fire protection water system in support of the test engineers' workstation to startup.
- BNI completed turnover of the process control system in support of the test engineers' workstation to startup.
- BNI continued final wall and floor coatings.
- BNI continued development of procedures for the WTP analytical methods development process.

Significant Planned Activities in the Next Three Months:

- Reach agreement between ORP and BNI on proposed C5V modifications.
- BNI to issue 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.
- BNI to load software and begin testing control and monitoring systems in the test engineers' workstation to support the nonradioactive liquid waste disposal system functional tests.
- BNI to receive replacement heating ventilation air-conditioning (HVAC) condenser.

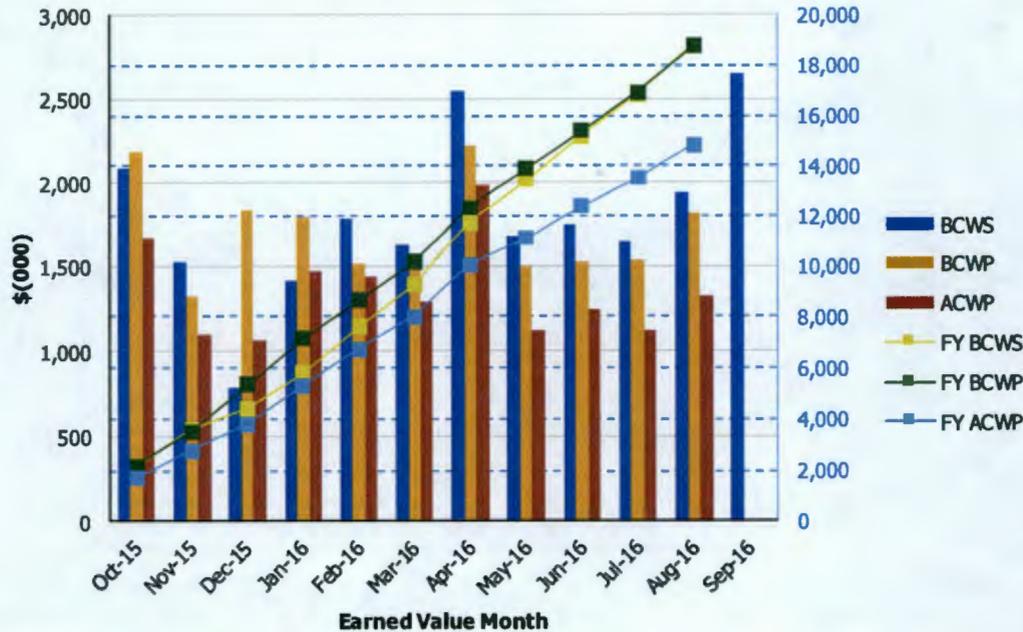
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Data Set: FY 2016 Earned Value Data

Data as of: August 2016

**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 2015	\$2,083	\$2,188	\$1,674	1.05	1.31	\$2,083	\$2,188	\$1,674	1.05	1.31
Nov 2015	\$1,528	\$1,324	\$1,093	0.87	1.21	\$3,611	\$3,513	\$2,768	0.97	1.27
Dec 2015	\$789	\$1,844	\$1,060	2.34	1.74	\$4,399	\$5,356	\$3,827	1.22	1.40
Jan 2016	\$1,415	\$1,797	\$1,472	1.27	1.22	\$5,815	\$7,153	\$5,299	1.23	1.35
Feb 2016	\$1,786	\$1,511	\$1,438	0.85	1.05	\$7,601	\$8,665	\$6,738	1.14	1.29
Mar 2016	\$1,628	\$1,478	\$1,291	0.91	1.15	\$9,229	\$10,143	\$8,028	1.10	1.26
Apr 2016	\$2,541	\$2,223	\$1,990	0.87	1.12	\$11,770	\$12,366	\$10,019	1.05	1.23
May 2016	\$1,682	\$1,507	\$1,117	0.90	1.35	\$13,452	\$13,874	\$11,136	1.03	1.25
Jun 2016	\$1,745	\$1,520	\$1,249	0.87	1.22	\$15,197	\$15,394	\$12,385	1.01	1.24
Jul 2016	\$1,649	\$1,531	\$1,117	0.93	1.37	\$16,846	\$16,926	\$13,502	1.00	1.25
Aug 2016	\$1,943	\$1,816	\$1,326	0.93	1.37	\$18,790	\$18,742	\$14,827	1.00	1.26
Sep 2016	\$2,650									
PTD	\$331,355	\$329,660	\$323,176	0.99	1.02					

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Waste Treatment Plant Project Percent Complete Status (Table)

Waste Treatment Plant Project - (LBL/Project Services) Percent Complete Status
Through August 2016

(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
Facilities																		
Low-Activity Waste	2,285.2	1,285.2	56%	543.0	421.5	78%	372.8	268.6	72%	667.7	543.5	81%	697.6	47.5	7%	4.0	4.0	100%
Balance of Facilities	754.9	451.0	60%	150.0	120.3	80%	72.4	55.3	76%	256.2	222.1	87%	275.8	52.8	19%	0.5	0.5	100%
Analytical Lab	528.2	321.7	61%	106.4	84.8	80%	65.4	57.4	88%	161.6	153.1	95%	194.3	25.9	13%	0.5	0.5	100%
Direct Feed LAW	390.4	64.6	17%	93.5	46.4	50%	57.1	2.1	4%	230.9	12.9	6%	0.0	0.0	0%	8.9	3.3	36%
LBL Facility Services	613.6	135.2	22%	0.0	0.0	0%	60.5	19.0	31%	131.7	29.8	23%	260.3	44.4	17%	161.1	42.0	26%
Total LBL	4,572.3	2,257.7	49%	892.9	673.0	75%	628.2	402.4	64%	1,448.1	961.5	66%	1,428.0	170.6	12%	175.1	50.2	29%
Project Services	1,019.5	351.6	34%	128.8	50.7	39%	74.2	33.1	45%	118.2	67.8	57%	1.7	1.7	100%	696.5	198.4	28%
Total Project Services	1,019.5	351.6	34%	128.8	50.7	39%	74.2	33.1	45%	118.2	67.8	57%	1.7	1.7	100%	696.5	198.4	28%
Total LBL, DFLAW & Project Services	5,591.7	2,609.3	47%	1,021.7	723.7	71%	702.4	435.5	62%	1,566.4	1,029.2	66%	1,429.7	172.3	12%	871.6	248.6	29%
PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)																		
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%
Total HLW/PT/SS	8,722.8	5,965.2	68%	2,173.1	1,948.9	90%	1,565.5	1,124.8	72%	2,887.6	1,764.8	61%	758.5	143.2	19%	1,338.1	983.5	73%
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
Total WTP	14,314.5	8,574.5	60%	3,194.8	2,672.6	84%	2,267.9	1,560.3	69%	4,454.0	2,794.0	63%	2,188.2	315.5	14%	2,209.7	1,232.1	56%

Source: Preliminary WTP Contract Performance Report - Format 1, Data for August 2016

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.