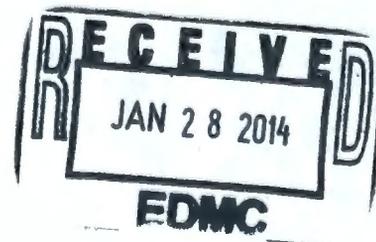


**FINAL**

Office of River Protection  
Consent Decree 08-5085-FVS  
Monthly Summary Report  
January 2014

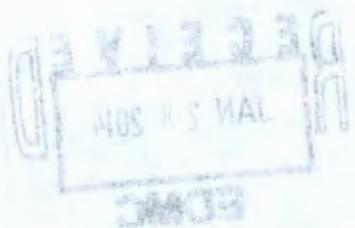


## Office of River Protection

Consent Decree 08-5085-FVS  
Monthly Summary Report

**January 2014 (Monthly Summary Report/Project Earned Value Management System reflects November 2013 information)**

| Page | Topic  | Leads                              |
|------|--|------------------------------------|
| 1    | Statistics/Status  | James Lynch/Dan McDonald/Jeff Lyon |
| 2    | Single-Shell Tank (SST) Retrieval and Closure<br>– D-00B-01, D-00B-02, D-00B-03, D-00B-04    | Chris Kemp/Jeff Lyon               |
| 3    | Tank Waste Retrieval Work Plan Status<br>– Consent Decree Appendix C                         | Chris Kemp/Jeff Lyon               |
| 4    | SST Retrieval Monthly and Fiscal Year Earned Value Management System Data                    | Kathy Higgins/Jeff Lyon            |
| 5    | Waste Treatment and Immobilization Plant (WTP) Project<br>– D-00A-06, D-00A-17, D-00A-01     | Delmar Noyes/Dan McDonald          |
| 8    | WTP Pretreatment Facility<br>– D-00A-18, D-00A-19, D-00A-13, D-00A-14,<br>D-00A-15, D-00A-16 | Wahed Abdul/Dan McDonald           |
| 11   | High-Level Waste Facility<br>– D-00A-20, D-00A-21, D-00A-02, D-00A-03                        | Wahed Abdul/Dan McDonald           |
| 14   | Low-Activity Waste Facility<br>– D-00A-07, D-00A-08, D-00A-09                                | Jeff Bruggeman/Dan McDonald        |
| 16   | Balance of Facilities<br>– D-00A-12  | Jason Young/Dan McDonald           |
| 18   | Analytical Laboratory<br>– D-00A-005   |                                    |



| Milestone               | Title   | Due Date   | Completion Date | Status    |
|-------------------------|---|------------|-----------------|-----------|
| <b>Fiscal Year 2013</b> |   |            |                 |           |
| D-00A-05                | LAB Construction Substantially Complete                                       | 12/31/2012 | 12/31/2012      | Completed |
| D-00A-12                | Steam Plant Construction Complete   | 12/31/2012 | 12/31/2012      | Completed |
| D-00A-21                | Complete Construction of Structural Steel to elevation of 37 feet in HLW Fac. | 12/31/2012 | 10/24/2012      | Completed |
| <b>Fiscal Year 2014</b> |   |            |                 |           |
| D-00B-01                | Complete Retrieval of Tank Waste from 10 SSTs in WMA-C                        | 09/30/2014 |                 | On-going* |
| D-00B-02                | Advise Ecology of the 9 SSTs Waste Will be Retrieved by 2022                  | 09/30/2014 | 08/24/2011      | Completed |
| <b>Fiscal Year 2015</b> |   |            |                 |           |
| D-00A-07                | LAW Facility Construction Substantially Complete                              | 12/31/2014 |                 | On-going* |
| D-00A-19                | Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility      | 12/31/2014 |                 | On-going* |

DOE = U.S. Department of Energy.  
 Ecology = Washington State Department of Ecology.  
 Fac. = facility.  
 HLW = high-level waste.  
 LAB = Analytical Laboratory.  
 LAW = low-activity waste.  
 PT = pretreatment.  
 SST = single-shell tank.  
 WMA-C = C-Farm Waste Management Area.

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

### Consent Decree Reports/Reviews

**D-00C-01 series, Submit to State of Washington and State of Oregon Semi-Annual Report, Due: Semi-Annually – January 31 and July 31 of each year, Status: On-going.**

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

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

**D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled, Sent: November 8, 2013, Status: Completed.**

### **Single-Shell Tank Retrieval Program**

**D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining Single-Shell Tanks (SST) in C-Farm Waste Management Area (WMA-C), Due: September 30, 2014, Status: On-going.\* Please see issues.**

**D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due: To be determined,** pursuant to Section IV-B-5 of the Consent Decree, U.S. Department of Energy (DOE) must submit to the Washington State of Ecology (Ecology) a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the Consent Decree. Completed for SST C-104 on March 21, 2013, via DOE Office of River Protection (ORP) letter 13-TF-0018. Completed for SST C-108 on May 1, 2013, via ORP letter 13-TF-0025. Completed for SST C-109 on June 4, 2013, via ORP letter 13-TF-0037.

**D-00B-02, Advise Ecology of the Nine SSTs from which Waste Will Be Retrieved by 2022, Due: September 30, 2014, Status: Completed on August 24, 2011.**

**D-00B-03, Initiate Startup of Retrieval in At Least five of nine SSTs in D-00B-02, Due: December 31, 2017, Status: On-going.**

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

**D-00B-04A thru I, Submit Tank Retrieval Complete Certification, Due: To be determined.**

#### **Significant Past Accomplishments:**

- Continued installation and testing of equipment for the Mobile Arm Retrieval System-Vacuum (MARS-V) at C-105. All major equipment has been installed, initiated Construction Acceptance Testing of the installed system.
- Completed installation of new replacement slurry pump at C-107. Retest of the new slurry pump is on-going.
- Completed the in-service leak test of the transfer system for C-107.
- Continued hard heel retrieval of C-112 by addition of caustic and water rinses for the dissolution process.
- Continued construction activities for installation of equipment for hard heel removal system at C-111.

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

- Complete installation of the MARS-V in C-105, startup of the MARS-V for C-105.
- Restart of the C-107 MARS retrieval system, and completion of retrieval.
- Begin start-up of hard heel retrieval in C-111 using high pressure water, with caustic/water dissolution available.

**Issues:**

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

**Tank Waste Retrieval Work Plan Status**

| Tank  | TWRWP              | Expected Revisions | Retrieval Technology        | Second Technology                                       | Third Technology               |
|-------|--------------------|--------------------|-----------------------------|---|--------------------------------|
| C-101 | RPP-22520, Rev. 7  | Complete           | Modified Sluicing with ERSS | High-Pressure Water with ERSS                           | -                              |
| C-102 | RPP-22393, Rev. 6A | In Process         | Modified Sluicing with ERSS | High-Pressure Water with ERSS                           | -                              |
| C-104 | RPP-22393, Rev. 6A | Complete           | Modified Sluicing           | Chemical Dissolution, retrieval complete per 13-TF-0018 | -                              |
| C-105 | RPP-22520, Rev. 7  | Complete           | MARS-V                      | MARS-V-High Pressure Water                              | -                              |
| C-107 | RPP-22393, Rev. 6A | Complete           | MARS-S                      | MARS-S -High Pressure Water                             | -                              |
| C-108 | RPP-22393, Rev. 6A | Complete           | Modified Sluicing           | Chemical Dissolution, retrieval complete per 13-TF-0025 | -                              |
| C-109 | RPP-21895, Rev. 5  | Complete           | Modified Sluicing           | Chemical Dissolution, retrieval complete per 13-TF-0037 | -                              |
| C-110 | RPP-33116, Rev. 2  | In process         | Modified Sluicing           | Mechanical Waste Conditioning                           | High Pressure Water            |
| C-111 | RPP-37739, Rev. 1  | Complete           | Modified Sluicing           | High pressure water with ERSS                           | Chemical Dissolution with ERSS |
| C-112 | RPP-22393, Rev. 6A | Complete           | Modified Sluicing           | Chemical Dissolution                                    | -                              |

ERSS = Extended Reach Sluicing System.

MARS = Mobile Arm Retrieval System.

S = sluicing.

TWRWP = Tank Waste Retrieval Work Plan.

V = vacuum.

**Significant Accomplishments:**

None.

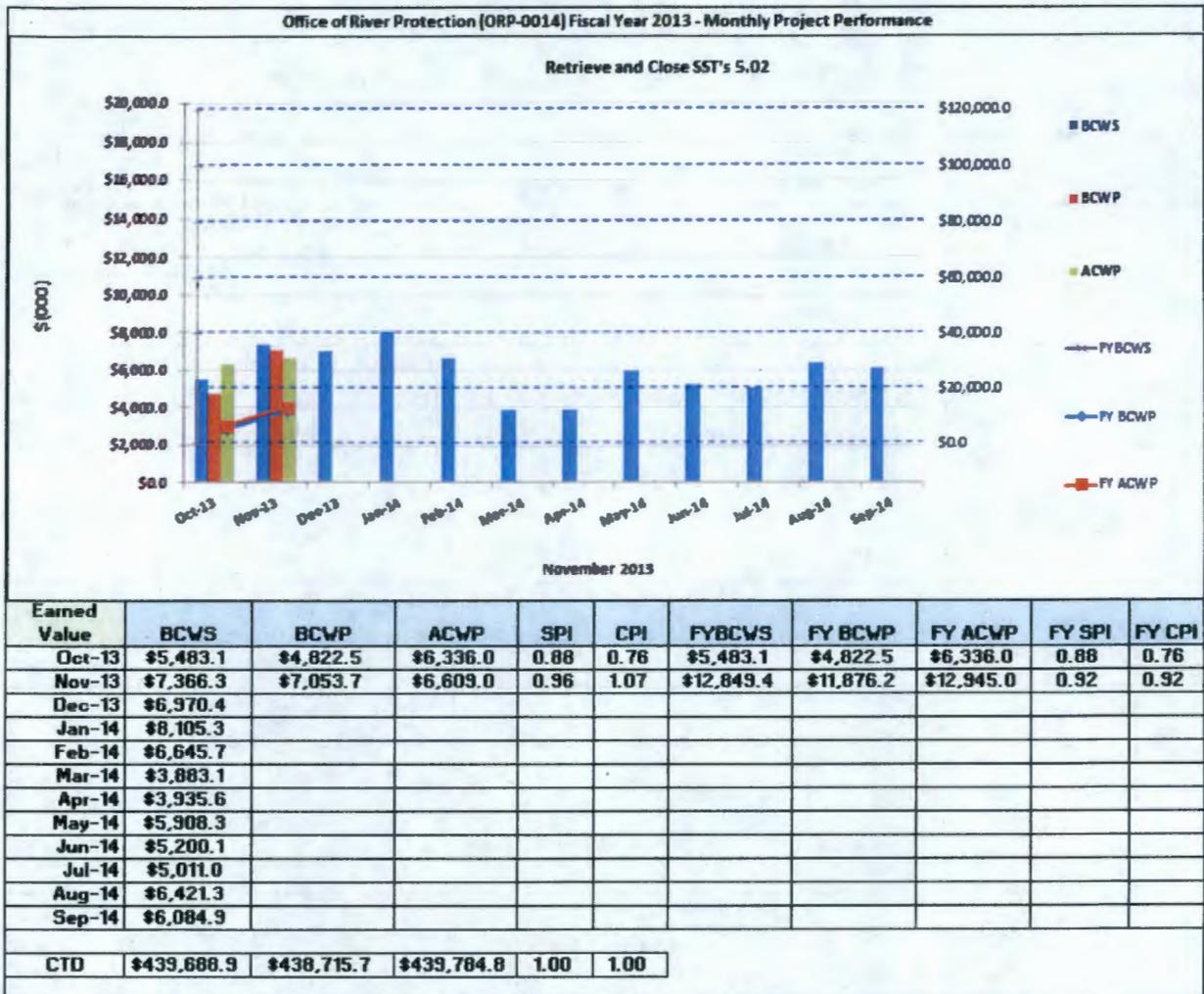
**Significant Planned Activities in the Next 6 Months:**

Modify TWRWP RPP-22520 with revised supernate concentrations for groundwater risk estimates associated with C-105 retrieval.

**Issues:**

None.

### Single-Shell Tank Retrieval Monthly and Fiscal Year Earned Value Management System Data



**Retrieval and Close Single-Shell Tanks**

**Schedule Variance of (\$313K):**

The unfavorable schedule variance is primarily due to:

- Delays on the construction activities at C-105 Retrieval. Work on C-110 and C-107 were given higher priority.

**Cost Variance of \$444K:**

The favorable cost variance is primarily due to:

- Removal and replacement of the sluicers at C-111. Work was performed concurrently in the same day causing a savings.

## Waste Treatment and Immobilization Plant Project

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

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,325 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 603 craft, 394 nonmanual, and 167 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

As of November 2013, the combined Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL) were 65-percent complete, design and engineering was 79-percent complete, procurement was 83-percent complete, construction was 74-percent complete, and startup and commissioning was 11-percent complete.

In September 2012, the baseline change proposal that implemented the LAW, LAB, and BOF replan was incorporated into the project over-target 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 Pretreatment (PT) and High-Level Waste (HLW) Facilities 2-Year Interim Work Plan was incorporated into the project over-target baseline and the percent-complete values for PT and HLW Facilities were frozen at the September 2012 rate. The WTP Project continues to progress in accordance with the LBL replan and PT/HLW 2-Year Interim Work Plan.

In November 2013, the cumulative to-date WTP Project schedule variance was a negative \$51.5 million, and the cumulative to-date WTP Project cost variance was a negative \$16.3 million. The major contribution to the cumulative to-date cost and schedule variance is based on the progress of the LBL replan and PT/HLW 2-Year Interim Work Plan.

The following is the status of project matters through the end of November.

### Significant Past Accomplishments:

- Received simulant tank agitators for the full scale test facility (PT/HLW)
- Initiated jet impingement testing for erosion (PT/HLW)
- Completed HLW Design and Operability Review (HLW)
- Received the HEPA preheaters for LAW secondary offgas/vessel vent process system from the manufacturer (LAW)
- Completed placement of the Standby Diesel Generator Facility foundation (BOF)
- Completed weld repairs to RLD vessel 163 (LAB).

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

- Assess the resumption of design, procurement, and construction for HLW (HLW)
- Complete reliability validation process reviews (HLW)
- Develop vessel-specific particle characteristics report for erosion/corrosion (PT/HLW)
- Complete installation of ASX System (LAW)
- Complete construction of the Glass Former Storage Facility (BOF)
- Complete repairs to RLD vessels (LAB).

**Issues:**

\* DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the PT and HLW Facilities include, among others, pulse-jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

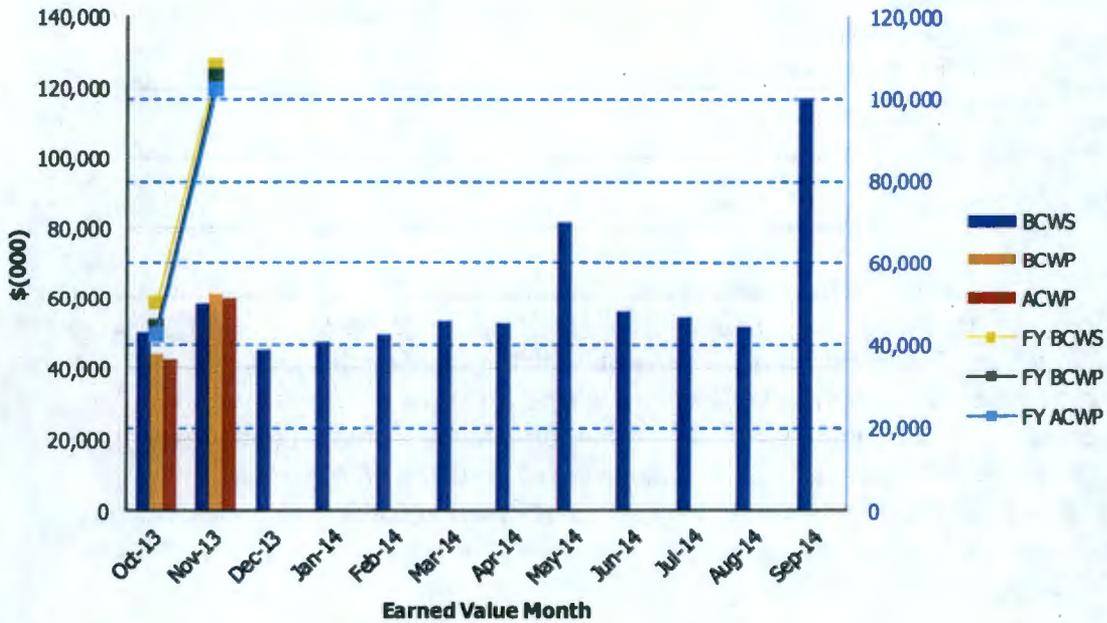
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2014 Earned Value Data

Data as of: November 2013

**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 2013           | \$49,959    | \$43,981    | \$42,448    | 0.88 | 1.04 | \$49,959  | \$43,981  | \$42,448  | 0.88   | 1.04   |
| Nov 2013           | \$58,047    | \$61,276    | \$59,935    | 1.06 | 1.02 | \$108,006 | \$105,257 | \$102,383 | 0.97   | 1.03   |
| Dec 2013           | \$45,182    |             |             |      |      |           |           |           |        |        |
| Jan 2014           | \$47,290    |             |             |      |      |           |           |           |        |        |
| Feb 2014           | \$49,428    |             |             |      |      |           |           |           |        |        |
| Mar 2014           | \$53,046    |             |             |      |      |           |           |           |        |        |
| Apr 2014           | \$52,930    |             |             |      |      |           |           |           |        |        |
| May 2014           | \$81,726    |             |             |      |      |           |           |           |        |        |
| Jun 2014           | \$56,083    |             |             |      |      |           |           |           |        |        |
| Jul 2014           | \$54,292    |             |             |      |      |           |           |           |        |        |
| Aug 2014           | \$51,488    |             |             |      |      |           |           |           |        |        |
| Sep 2014           | \$116,961   |             |             |      |      |           |           |           |        |        |
| PTD                | \$7,898,219 | \$7,846,732 | \$7,862,992 | 0.99 | 1.00 |           |           |           |        |        |

## Pretreatment Facility

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

The PT Facility will separate radioactive tank waste into HLW and LAW fractions and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56-percent complete overall, with engineering design 85-percent complete, procurement 56-percent complete, construction 43-percent complete, and startup and commissioning 3-percent complete. Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent-complete status since September 2012. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the PT/HLW 2-Year Interim Work Plan.

Technical review teams continue to evaluate open technical issues. Construction of the mixing test platform continues in preparation for full-scale testing. Engineering specifications for full-scale testing have been prepared and are undergoing a multidiscipline review. National laboratories are developing a test plan, simulant, and instrumentation requirements. BNI has developed a probabilistic risk assessment plan and project execution plan to resolve technical issues regarding criticality, hydrogen in vessels, and HPAV. The plans are undergoing comment resolution. Resources are being moved to perform technical issues resolution in PT.

BNI has completed a preliminary evaluation of the impact of a proposed change to the natural phenomenon hazards design criteria that would double the ash fall criteria. This design criteria revision has the potential to impact facility design and heating, ventilating, and air-conditioning (HVAC) system design.

### Significant Past Accomplishments:

- Continued construction at Full-Scale Test Facility with primary air system piping spools
- Completed review of the 90 percent draft Full Scale Test Plan from Pacific Northwest National Laboratory
- Received simulant tank agitators for the full scale test facility
- Initiated jet impingement testing for erosion

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

- Update basis of design for safety classification regarding seismic analysis of vessels
- Issue sampling action plan to determine sampling accuracy
- Define pulse-jet mixing control strategy
- Start slurry pot testing for erosion
- Review flammable gas generation, retention, and release from sediments in vessels
- Develop decision process for vessel structural modifications
- Develop vessel-specific particle characteristics report for erosion/corrosion
- Issue engineering specification for vessel testing
- Receive final test plan, simulant composition, and instrument list from Pacific Northwest National Laboratory.

**Issues:**

\* DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the PT and HLW Facilities include, among others, pulse-jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed specification.

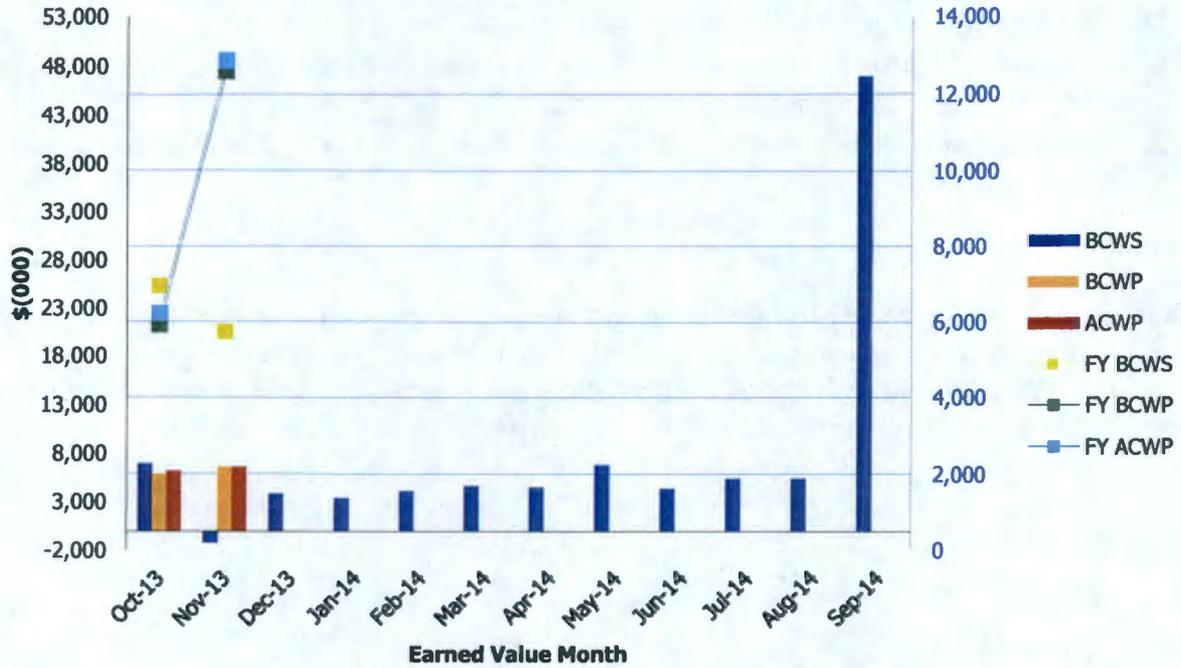
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: November 2013

**River Protection Project  
Pretreatment Facility**

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS               | BCWP               | ACWP               | SPI         | CPI         | FY BCWS | FY BCWP  | FY ACWP  | FY SPI | FY CPI |
|--------------------|--------------------|--------------------|--------------------|-------------|-------------|---------|----------|----------|--------|--------|
| Oct 2013           | \$6,954            | \$5,927            | \$6,224            | 0.85        | 0.95        | \$6,954 | \$5,927  | \$6,224  | 0.85   | 0.95   |
| Nov 2013           | (\$1,213)          | \$6,673            | \$6,646            | 5.50        | 1.00        | \$5,741 | \$12,600 | \$12,870 | 2.19   | 0.98   |
| Dec 2013           | \$3,865            |                    |                    |             |             |         |          |          |        |        |
| Jan 2014           | \$3,399            |                    |                    |             |             |         |          |          |        |        |
| Feb 2014           | \$4,113            |                    |                    |             |             |         |          |          |        |        |
| Mar 2014           | \$4,695            |                    |                    |             |             |         |          |          |        |        |
| Apr 2014           | \$4,526            |                    |                    |             |             |         |          |          |        |        |
| May 2014           | \$6,845            |                    |                    |             |             |         |          |          |        |        |
| Jun 2014           | \$4,421            |                    |                    |             |             |         |          |          |        |        |
| Jul 2014           | \$5,437            |                    |                    |             |             |         |          |          |        |        |
| Aug 2014           | \$5,459            |                    |                    |             |             |         |          |          |        |        |
| Sep 2014           | \$46,949           |                    |                    |             |             |         |          |          |        |        |
| <b>PTD</b>         | <b>\$1,534,244</b> | <b>\$1,515,936</b> | <b>\$1,513,969</b> | <b>0.99</b> | <b>1.00</b> |         |          |          |        |        |

## High-Level Waste Facility

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

The HLW Facility will receive the separated HLW concentrate from the PT Facility. This concentrate will be blended with glass formers and converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated before shipment to interim storage.

As of September 2012, the HLW Facility is 62-percent complete overall, with engineering design 89-percent complete, procurement 81-percent complete, construction 43-percent complete, and startup and commissioning 4-percent complete. Construction, procurement, and production engineering activities have significantly slowed down, resulting in minimal change to the percent completion status since September. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the PT/HLW 2-Year Interim Work Plan.

Technical review teams continue to evaluate open technical issues with priority placed on the resumption of HLW construction. Construction activities include the placement of walls at the 37-ft elevation, installation of structural steel at the 58-ft and 77-ft elevation, and installation of cable tray supports and ventilation ducts at the 14-ft elevation. Engineering efforts are focused on resolution of Priority Level 1 findings. The Environmental and Nuclear Safety Group is in the process of developing the safety design strategy as part of the initiative to resume design, procurement, and construction.

The path forward to ramp up HLW production engineering and construction is separated into three actions: Conduct engineering studies to resolve technical safety issues; perform risk assessment for the issues noted in Priority Level 1 findings, reliability validation process, project issues evaluation reporting, etc.; and perform assessment of BNI process improvement for the readiness to proceed.

### Significant Past Accomplishments:

- Completed HLW Design and Operability Review
- Continuing with the risk assessments for the technical and programmatic issues
- Continuing to develop the safety design strategy

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

- Assess the resumption of design, procurement, and construction for HLW
- Complete reliability validation process reviews
- Develop HLW-specific safety design strategy
- Develop plan to close technical issues and other issues (e.g., safety basis compliance, quality assurance issues, and design defensibility) of HLW
- Complete draft analysis of single-point failures in support of failure mode analysis
- Complete conceptual design of in-service inspection
- Complete plan for erosion/corrosion risk evaluation for HLW
- Perform HEPA filter qualification testing at Mississippi State University.

**Issues:**

\* DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues relevant to the PT and HLW Facilities include, among others, pulse-jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed specification.

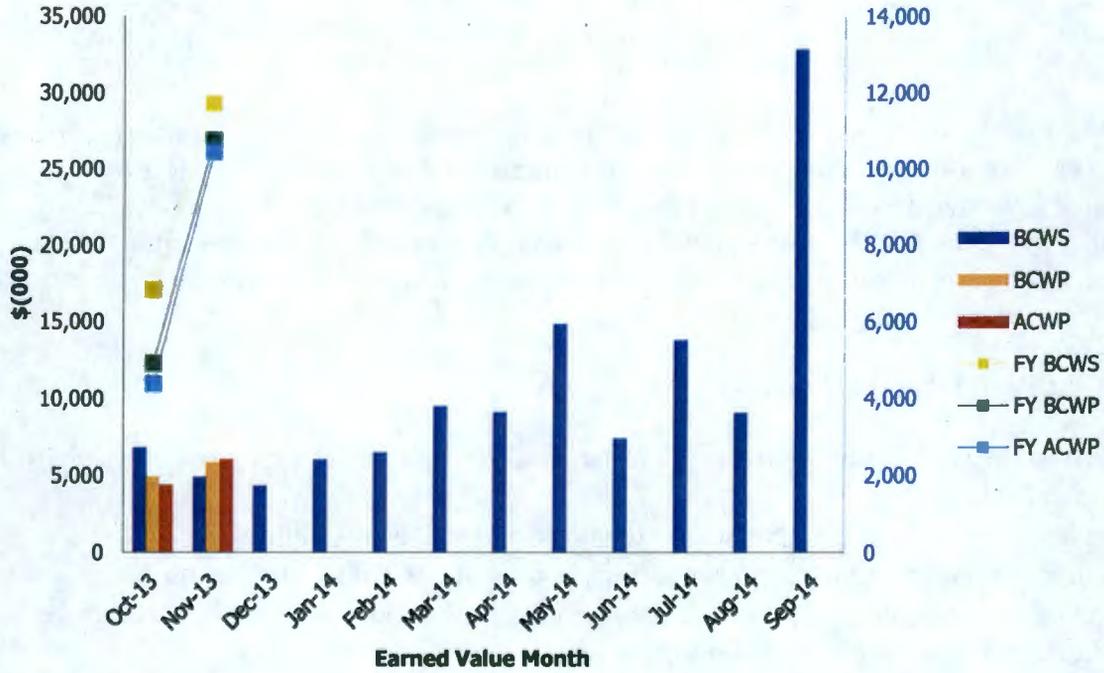
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2014 Earned Value Data

Data as of: November 2013

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

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS             | BCWP             | ACWP             | SPI         | CPI         | FY BCWS  | FY BCWP  | FY ACWP  | FY SPI | FY CPI |
|--------------------|------------------|------------------|------------------|-------------|-------------|----------|----------|----------|--------|--------|
| Oct 2013           | \$6,818          | \$4,914          | \$4,390          | 0.72        | 1.12        | \$6,818  | \$4,914  | \$4,390  | 0.72   | 1.12   |
| Nov 2013           | \$4,892          | \$5,842          | \$6,055          | 1.19        | 0.96        | \$11,710 | \$10,756 | \$10,445 | 0.92   | 1.03   |
| Dec 2013           | \$4,314          |                  |                  |             |             |          |          |          |        |        |
| Jan 2014           | \$6,010          |                  |                  |             |             |          |          |          |        |        |
| Feb 2014           | \$6,472          |                  |                  |             |             |          |          |          |        |        |
| Mar 2014           | \$9,502          |                  |                  |             |             |          |          |          |        |        |
| Apr 2014           | \$9,106          |                  |                  |             |             |          |          |          |        |        |
| May 2014           | \$14,818         |                  |                  |             |             |          |          |          |        |        |
| Jun 2014           | \$7,379          |                  |                  |             |             |          |          |          |        |        |
| Jul 2014           | \$13,796         |                  |                  |             |             |          |          |          |        |        |
| Aug 2014           | \$9,052          |                  |                  |             |             |          |          |          |        |        |
| Sep 2014           | \$32,827         |                  |                  |             |             |          |          |          |        |        |
| <b>PTD</b>         | <b>\$998,512</b> | <b>\$999,935</b> | <b>\$993,315</b> | <b>1.00</b> | <b>1.01</b> |          |          |          |        |        |

## Low-Activity Waste Facility

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

The LAW Facility will process LAW that will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers that are anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of November 2013, the LAW Facility is 66-percent complete overall, with engineering design 79-percent complete, procurement 85-percent complete, construction 69-percent complete, and startup and commissioning 6-percent complete.

### Significant Past Accomplishments:

- Received the HEPA preheaters for LAW secondary offgas/vessel vent process system from the manufacturer
- Installed the swabbing manipulators in the north and south finish line
- Installed the melter refractory to support the pour spout assembly installation
- Started long lead procurement of the Thermal Catalytic Oxidizer (TCO) heat exchanger
- Hydro-tested 3,500 linear feet of piping
- Installed over 700 linear feet of instrument tubing, and 2,400 linear feet of electrical conduit, and pulled over 21,000 linear feet of cable

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

- Complete installation of autosampling system
- Continue refractory brick installation in the melters
- Complete hazard analysis for the melter and melter off-gas.

### Issues:

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

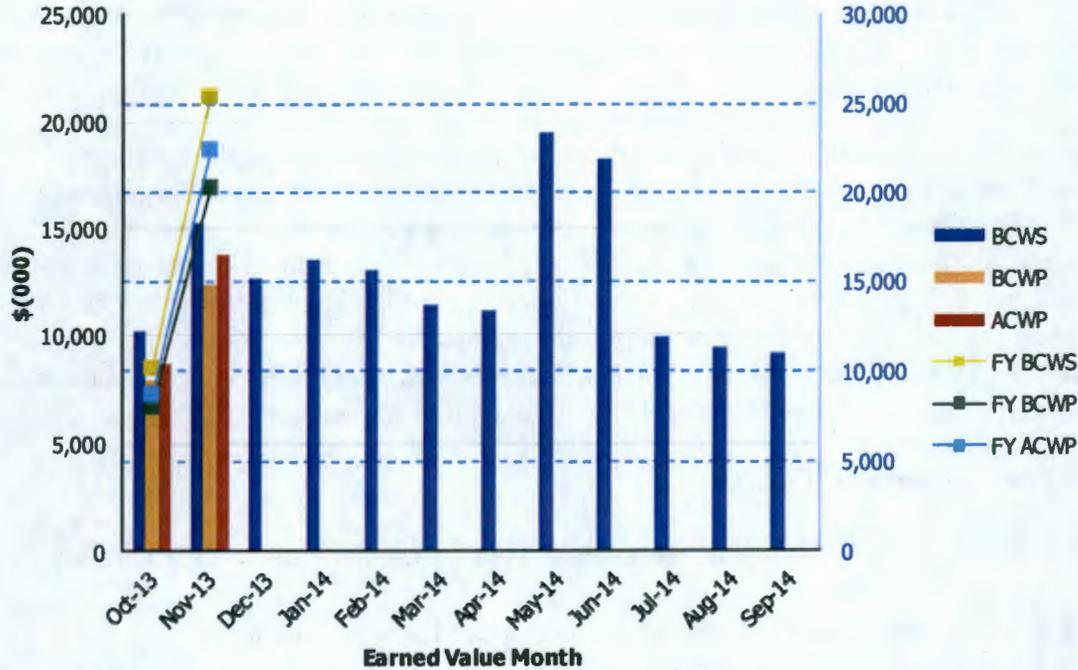
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: November 2013

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

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS             | BCWP             | ACWP             | SPI         | CPI         | FY BCWS  | FY BCWP  | FY ACWP  | FY SPI | FY CPI |
|--------------------|------------------|------------------|------------------|-------------|-------------|----------|----------|----------|--------|--------|
| Oct 2013           | \$10,160         | \$7,952          | \$8,677          | 0.78        | 0.92        | \$10,160 | \$7,952  | \$8,677  | 0.78   | 0.92   |
| Nov 2013           | \$15,237         | \$12,339         | \$13,732         | 0.81        | 0.90        | \$25,397 | \$20,291 | \$22,409 | 0.80   | 0.91   |
| Dec 2013           | \$12,569         |                  |                  |             |             |          |          |          |        |        |
| Jan 2014           | \$13,444         |                  |                  |             |             |          |          |          |        |        |
| Feb 2014           | \$12,976         |                  |                  |             |             |          |          |          |        |        |
| Mar 2014           | \$11,388         |                  |                  |             |             |          |          |          |        |        |
| Apr 2014           | \$11,129         |                  |                  |             |             |          |          |          |        |        |
| May 2014           | \$19,428         |                  |                  |             |             |          |          |          |        |        |
| Jun 2014           | \$18,226         |                  |                  |             |             |          |          |          |        |        |
| Jul 2014           | \$9,943          |                  |                  |             |             |          |          |          |        |        |
| Aug 2014           | \$9,406          |                  |                  |             |             |          |          |          |        |        |
| Sep 2014           | \$9,120          |                  |                  |             |             |          |          |          |        |        |
| <b>PTD</b>         | <b>\$829,895</b> | <b>\$809,781</b> | <b>\$865,689</b> | <b>0.98</b> | <b>0.94</b> |          |          |          |        |        |

## Balance of Facilities

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

The BOF provides services and utilities to support operation of the main production facilities: PT, HLW, LAW, and LAB. As of November 2013, BOF is 59-percent complete overall, with engineering design 80-percent complete, procurement 72-percent complete, construction 79-percent complete, and startup and commissioning 13-percent complete.

Commercial grade dedication activities in support of the emergency turbine generator procurement are the primary focus for design engineering and the procurement organization. Construction and startup efforts are focused on completion of the Glass Former Facility, construction of the Standby Diesel Generator (SDG) Facility, and turnover of the nonradioactive liquid waste disposal (NLD) system from construction to startup. Excavation activities for the SDG Building are complete, and the foundation for the facility has been placed. The construction organization has performed the 8-week walk down for the NLD system and is completing activities for turnover to the start-up organization for component level testing.

### Significant Past Accomplishments:

- Pulled 2,830 linear feet of cable and completed 63 cable terminations in the Glass Former Facility
- Completed placement of the Standby Diesel Generator Facility foundation
- Started relay testing/calibration in the BOF Switchgear Building 91

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

- Complete construction of the Glass Former Storage Facility
- Turnover the NLD system from construction to startup
- Complete component testing of the low-voltage, medium-voltage, and fire detection systems for switchgear Buildings 87 and 91.

### Issues:

No major issues at this time.

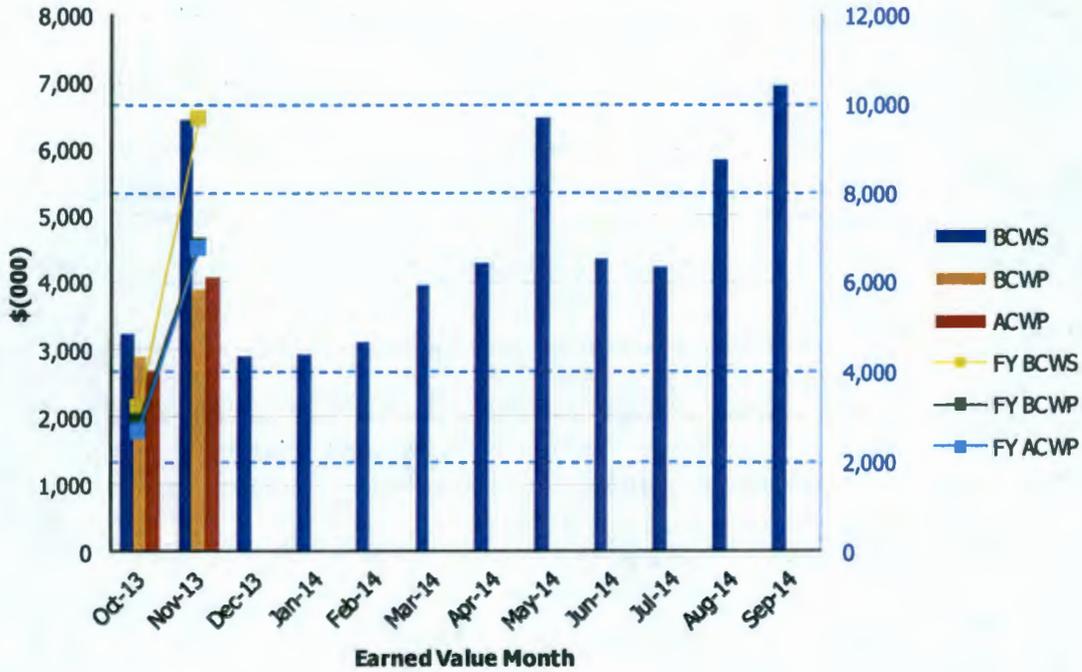
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: November 2013

**River Protection Project  
Balance of Facilities**

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS             | BCWP             | ACWP             | SPI         | CPI         | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|--------------------|------------------|------------------|------------------|-------------|-------------|---------|---------|---------|--------|--------|
| Oct 2013           | \$3,218          | \$2,901          | \$2,679          | 0.90        | 1.08        | \$3,218 | \$2,901 | \$2,679 | 0.90   | 1.08   |
| Nov 2013           | \$6,431          | \$3,886          | \$4,067          | 0.60        | 0.96        | \$9,649 | \$6,787 | \$6,746 | 0.70   | 1.01   |
| Dec 2013           | \$2,904          |                  |                  |             |             |         |         |         |        |        |
| Jan 2014           | \$2,934          |                  |                  |             |             |         |         |         |        |        |
| Feb 2014           | \$3,119          |                  |                  |             |             |         |         |         |        |        |
| Mar 2014           | \$3,957          |                  |                  |             |             |         |         |         |        |        |
| Apr 2014           | \$4,277          |                  |                  |             |             |         |         |         |        |        |
| May 2014           | \$6,468          |                  |                  |             |             |         |         |         |        |        |
| Jun 2014           | \$4,329          |                  |                  |             |             |         |         |         |        |        |
| Jul 2014           | \$4,212          |                  |                  |             |             |         |         |         |        |        |
| Aug 2014           | \$5,827          |                  |                  |             |             |         |         |         |        |        |
| Sep 2014           | \$6,945          |                  |                  |             |             |         |         |         |        |        |
| <b>PTD</b>         | <b>\$336,363</b> | <b>\$324,436</b> | <b>\$318,117</b> | <b>0.96</b> | <b>1.02</b> |         |         |         |        |        |

## Analytical Laboratory

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

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of November 2013, the LAB is 71-percent complete overall, with engineering design 79-percent complete, procurement 86-percent complete, construction 86-percent complete, and startup and commissioning 23-percent complete.

Engineering efforts are focused on supporting RLD vessel repairs and finalizing the electrical engineering portions of the LAB design. Construction efforts are focused on installation of instrument tubing and electrical commodities to support the completion of LAB construction.

### Significant Past Accomplishments:

- Received instrument and transport lines for the exhaust stack monitors
- Pulled over 20,000 linear feet of cable and completed 1,200 terminations
- Completed weld repairs to RLD vessel 163

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

- Complete fabrication of stack discharge monitoring panels
- Complete repairs to RLD vessels

### Issues:

No major issues at this time.

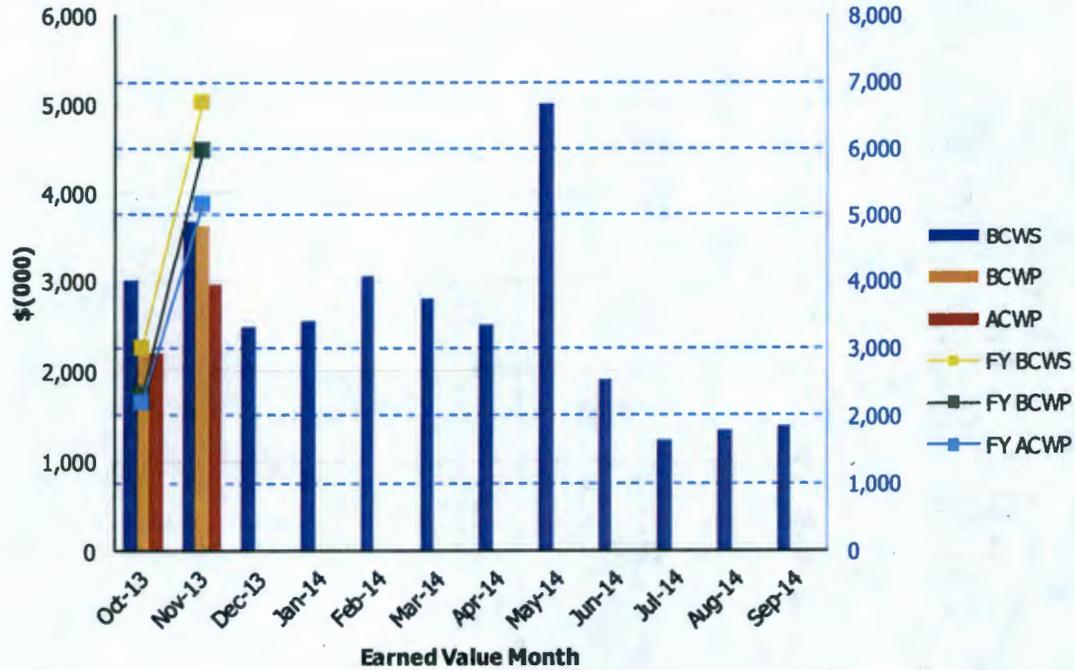
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2014 Earned Value Data

Data as of: November 2013

**River Protection Project  
Analytical Laboratory**

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS             | BCWP             | ACWP             | SPI         | CPI         | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|--------------------|------------------|------------------|------------------|-------------|-------------|---------|---------|---------|--------|--------|
| Oct 2013           | \$3,008          | \$2,328          | \$2,196          | 0.77        | 1.06        | \$3,008 | \$2,328 | \$2,196 | 0.77   | 1.06   |
| Nov 2013           | \$3,689          | \$3,629          | \$2,959          | 0.98        | 1.23        | \$6,697 | \$5,957 | \$5,155 | 0.89   | 1.16   |
| Dec 2013           | \$2,481          |                  |                  |             |             |         |         |         |        |        |
| Jan 2014           | \$2,553          |                  |                  |             |             |         |         |         |        |        |
| Feb 2014           | \$3,051          |                  |                  |             |             |         |         |         |        |        |
| Mar 2014           | \$2,802          |                  |                  |             |             |         |         |         |        |        |
| Apr 2014           | \$2,501          |                  |                  |             |             |         |         |         |        |        |
| May 2014           | \$4,999          |                  |                  |             |             |         |         |         |        |        |
| Jun 2014           | \$1,894          |                  |                  |             |             |         |         |         |        |        |
| Jul 2014           | \$1,234          |                  |                  |             |             |         |         |         |        |        |
| Aug 2014           | \$1,351          |                  |                  |             |             |         |         |         |        |        |
| Sep 2014           | \$1,381          |                  |                  |             |             |         |         |         |        |        |
| <b>PTD</b>         | <b>\$243,736</b> | <b>\$239,040</b> | <b>\$257,658</b> | <b>0.98</b> | <b>0.93</b> |         |         |         |        |        |

| Waste Treatment Plant Project - (LBL) Percent Complete Status<br>Through November 2013                     |  |   |               |   |   |               |   |   |               |   |   |               |   |   |               |
|--|--|---|---------------|---|---|---------------|---|---|---------------|---|---|---------------|---|---|---------------|
| (Dollars - Millions)   | Overall Facility Percent Complete<br>Unallocated Dollars |   |               | Design/Engineering<br>Unallocated Dollars       |   |               | Procurement<br>Unallocated Dollars              |   |               | Construction<br>Unallocated Dollars             |   |               | Startup & Plant Operations<br>Unallocated Dollars |   |               |
|  | Performance<br>Measurement<br>Baseline<br>(PMB)          | Budgeted<br>Cost of Work<br>Performed<br>(BCWP) | %<br>Complete | Performance<br>Measurement<br>Baseline<br>(PMB) | Budgeted<br>Cost of Work<br>Performed<br>(BCWP) | %<br>Complete | Performance<br>Measurement<br>Baseline<br>(PMB) | Budgeted<br>Cost of Work<br>Performed<br>(BCWP) | %<br>Complete | Performance<br>Measurement<br>Baseline<br>(PMB) | Budgeted<br>Cost of Work<br>Performed<br>(BCWP) | %<br>Complete | Performance<br>Measurement<br>Baseline<br>(PMB)   | Budgeted<br>Cost of Work<br>Performed<br>(BCWP) | %<br>Complete |
| Facilities   |  |   |               |   |   |               |   |   |               |   |   |               |   |   |               |
| Low-Activity Waste   | 1,226.2  | 809.8   | 66%           | 317.3   | 251.4   | 79%           | 266.3   | 227.6   | 85%           | 466.6   | 320.7   | 69%           | 177.9   | 10.1  | 6%            |
| Analytical Lab   | 334.9  | 239.0   | 71%           | 72.6  | 57.3  | 78%           | 54.8  | 47.4  | 86%           | 138.5   | 118.7   | 86%           | 68.9  | 15.7  | 23%           |
| Balance of Facilities  | 548.0  | 324.4   | 59%           | 85.0  | 76.4  | 80%           | 72.0  | 51.9  | 72%           | 224.0   | 176.2   | 79%           | 155.1   | 19.9  | 13%           |
| Total LBL  | 2,109.1  | 1,373.3   | 65%           | 485.0   | 385.1   | 79%           | 393.1   | 326.9   | 83%           | 829.1   | 615.6   | 74%           | 401.9   | 45.7  | 11%           |
| <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%            |
| 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%            |
| 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%           |
| 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%           |
| 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           |
| Total WTP  | 10,831.9   | 7,338.5   | 68%           | 2,658.1   | 2,334.0   | 88%           | 1,958.6   | 1,451.7   | 74%           | 3,716.7   | 2,380.4   | 64%           | 1,160.4   | 188.9   | 16%           |

Source: Preliminary WTP Contract Performance Report - Format 1, Data for November 2013

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.