Office of River Protection

Tri-Party Agreement Report
Monthly Reporting Period
April 1−April 30, 2023[1]

[1] The narrative descriptions of progress in this report cover the reporting period. Information outside the reporting period may also be included for purposes of providing continuity or useful context. Information may be repeated in multiple sections of this report for continuity and clarity. Earned Value Management System data and descriptions cover the period through March 2023.

Topic **Page**

Acronyms and Abbreviations

CCF	change control form
COVID-19	coronavirus disease 2019
CMIP	Corrective Measures Implementation Work Plan
CV	cost variance
DFLAW	direct-feed low-activity waste
DOE	U.S. Department of Energy
DST	double-shell tank
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ETF	Effluent Treatment Facility
HFFACO	*Hanford Federal Facility Agreement and Consent Order* (HFFACO and TPA are used interchangeably throughout this report)
IAMIT	Interagency Management Integration Team
IQRPE	Independent Qualified Registered Professional Engineer
IX	ion exchange
LAW	low-activity waste
LAWP	low-activity waste pretreatment
LERF	Liquid Effluent Retention Facility
ORR	Operational Readiness Review
PMR	permit modification request
RCRA	*Resource Conservation and Recovery Act*
SST	single-shell tank
SV	schedule variance
TBI	Test Bed Initiative
TPA	Tri-Party Agreement
TSCR	tank-side cesium removal
WIR	Waste Incidental to Reprocessing
WMA	waste management area
WTP	Waste Treatment and Immobilization Plant

Administrative Items/Milestone Status

Milestone	Title	Due Date	DOE PM	Completion Date	Status
Prior Years					
M-062-45	Complete Negotiations 6-Months After Last Issuance of System Plan	04/30/2015	P. Schroder	-	In Dispute
M-062-45-ZZ	Negotiate a One-Time Supplemental Treatment Selection	04/30/2015	P. Schroder	-	In Dispute
M-062-45-ZZ-A	Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones	04/30/2015	P. Schroder	-	In Dispute
M-062-31-T01	Complete Final Design & Submit RCRA Part B Permit Mod Request for Enhanced WTP & Supplemental Treatment	04/30/2016	P. Schroder	-	In Dispute
M-062-32-T01	Start Construction of Supplemental Vitrification Facility and/or WTP Enhancements	04/30/2018	P. Schroder	-	In Dispute
M-062-33-T01	Complete Construction of Supplemental Treatment Vitrification Facility and/or WTP Enhancements	04/30/2021	P. Schroder	-	In Dispute
M-062-45-A	Complete Negotiations 6-Months After Last Issuance of System Plan	04/30/2021[c]	P. Schroder	-	In Dispute
M-062-45-XX	Complete Negotiations to Resolve Future Disputes M-062-45 Paragraphs 4 & 5	12/31/2021	P. Schroder	-	In Abeyance
M-045-85	Initiate Negotiations of HFFACO Interim Milestones for Closure of Remaining WMAs	01/31/2022	P. Schroder	-	In Abeyance
M-045-15	Completion of Tank A-103 SST Waste Retrieval	09/30/2022	P. Schroder	-	In Abeyance
M-045-15A	Submit a Retrieval Data Report Pursuant to Agreement Appendix I	09/30/2022	P. Schroder	-	In Abeyance

Milestone	Title	Due Date	DOE PM	Completion Date	Status
M-045-15D	Submit, if appropriate, an exception to Waste Retrieval Criteria Pursuant to Agreement Appendix H	09/30/2022	P. Schroder	-	In Abeyance
M-045-59	Control Surface Water Infiltration Pathways as Needed	TBD[a]	P. Schroder	-	On Schedule
M-045-62	Submit the Draft Tier 3 Closure Plan with Corrective Measures in Phase 2 CMIP for WMA-C	TBD[a]	P. Schroder	-	On Schedule
M-045-83	Complete the Closure of WMA-C by Completing Closure Activities Specified in the Tier 2 Closure Plan	TBD[a]	P. Schroder	-	On Schedule
M-045-86	Submit Retrieval Data Report to Ecology for 19 Tanks Retrieved Under Consent Decree	TBD[b]	P. Schroder	-	On Schedule
Fiscal Year 2023 (October 1, 2022 – September 30, 2023)					
M-062-34-T01	Complete Hot Commissioning of Supplemental Treatment Vitrification Facility and/or WTP Enhancements	12/30/2022	P. Schroder	-	In Dispute
M-062-40I	Select a Minimum of 3 Scenarios	12/31/2022	P. Schroder	12/27/2022	Completed
M-062-01AT	Submit Semi-Annual Project Compliance Report to Ecology	01/31/2023	P. Schroder	01/26/2023	Completed
M-062-51	Achieve Substantial Completion of LERF/ETF Construction Upgrades Necessary for LAW Hot Commissioning	04/15/2023	P. Schroder	04/14/2023	Completed
M-062-52	Achieve Substantial Completion of Secondary Waste Construction Necessary for LAW Hot Commissioning	06/30/2023	P. Schroder	-	On Schedule
M-045-56S	Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July 2023)	07/31/2023	P. Schroder	-	On Schedule

Milestone	Title	Due Date	DOE PM	Completion Date	Status
M-062-01AU	Submit Semi-Annual Project Compliance Report to Ecology	07/31/2023	P. Schroder	-	On Schedule
M-062-53	Effluent Management Facility (EMF) Cold Commissioning Start	08/15/2023	J. Young		On Schedule
M-062-21	Annually Submit Data Which Demonstrates Operation of WTP at a Rate Sufficient to Meet M-062-00	08/31/2023[d]	P. Schroder	-	At Risk
M-045-86L	Submit Retrieval Data Report (RDR) to Ecology for Tank AX-104	09/29/2023	P. Schroder	-	On Schedule
M-045-91E5	Provide SST Farms Dome Deflection Surveys Every 2 Years to Ecology	09/30/2023	P. Schroder	-	On Schedule
Fiscal Year 2024 (October 1, 2023 – September 30, 2024)					
M-045-92	Complete Installation of 4 Additional Interim Barriers	10/31/2023	P. Schroder	-	On Schedule
M-045-92AB	Complete Construction of Barrier 4 in 241-U Farm	10/31/2023	P. Schroder	-	On Schedule
M-045-92AG	Submit Yearly Reports Summarizing the Results of Maintenance and Performance Monitoring Activities	10/31/2023	P. Schroder	-	On Schedule
M-062-40J	Submit System Plan to Ecology	12/31/2023	P. Schroder	-	On Schedule
M-062-56	Submit Permit Application for Design and Construction of the LAWP Capability	12/31/2023	P. Schroder	-	On Schedule
M-045-86M	Submit Retrieval Data Report (RDR) to Ecology for Tank AX-103	01/17/2024	P. Schroder	-	On Schedule
M-062-01AV	Submit Semi-Annual Project Compliance Report to Ecology	01/31/2024	P. Schroder	-	On Schedule
M-045-91K-T01	Submit Report of the Initial Baseline Visual Inspection of All SSTs Remaining to be Inspected	03/31/2024	P. Schroder	12/01/2022	Completed

Milestone	Title	Due Date	DOE PM	Completion Date	Status
M-045-56T	Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July 2024)	07/31/2024	P. Schroder	-	On Schedule
M-062-01AW	Submit Semi-Annual Project Compliance Report to Ecology	07/31/2024	P. Schroder	-	On Schedule
M-062-21A	Annually Submit Data Which Demonstrates Operation of WTP at a Rate Sufficient to Meet M-062-00	08/31/2024[d]	P. Schroder	-	At Risk

[a] To be established in accordance with the date identified in the M-045-82 Tier 2 Closure Plan.

[b] To be determined based on tank retrieval completion.

[c] On January 27, 2021, DOE submitted signed change control form M-62-21-01 to Ecology for evaluation to extend the Milestone M-062-45-A, "Complete Negotiations 6-months After Last System Plan," due date by 90 days due to "Holistic Negotiations" progress. This change control form was not concurred on by Ecology within the 14-day period; therefore, the change control form went into dispute on February16, 2021, via ORP letter 21-TF-000637.

[d] Change control form M-62-22-01, approved November 29, 2022, extended the due date of interim Milestone M-062-21 by 6 months, from February 28, 2023, to August 31, 2023 (and annually thereafter).

CMIP = Corrective Measures Implementation Work Plan.
DOE = U.S. Department of Energy.
Ecology = Washington State Department of Ecology.
ETF = Effluent Treatment Facility.
HFFACO = *Hanford Federal Facility Agreement and Consent Order*.
LAW = low-activity waste.
LAWP = Low-Activity Waste Pretreatment.
LERF = Liquid Effluent Retention Facility.
Mod = modification.
ORP = U.S. Department of Energy, Office of River Protection.
PM = project manager.
RCRA = *Resource Conservation and Recovery Act*.
SST = single-shell tank.
TBD = to be determined.
WMA = waste management area.
WTP = Waste Treatment and Immobilization Plant.

222-S Laboratory

***Tank Farms Assistant Manager*:** Delmar Noyes
Technical Lead: Jeff Cheadle
***Ecology Project Manager*:** Debra Alexander

Significant Past Accomplishments

- During the month of April, the 222-S Laboratory delivered the following reports:
  - Final report for Tank Operating Contractor for characterization of sample "Tank AZ-301 Liquid, 2023-03."
  - Two preliminary reports for incremental core samples from the A/AX Tank Farm vadose soil project.
  - Four final reports for bi-annual 241-AN Tank Farm exhauster stack chemical emissions and one each for 241-AY/AZ Stack and 241-AP Stack.
- Procured and installed a new High-Pressure Liquid Chromatograph (HPLC) analytical instrument in the 222-S Laboratory room, 4QR. The HPLC primarily supports the tank corrosion control program. It will replace the current, aging HPLC that has experienced numerous system outages.

Significant Planned Activities in the Next Six Months

- Stage and complete a waste transfer from 219-S Tank 102 to Tank 241-SY-101
- Receive and analyze core samples from AN-104 and Tank-Side Cesium Removal (TSCR) effectiveness grab sample from AP-106
- Replace windows on 11A2 and 11A3 hot cells.

Issues

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing coronavirus disease 2019 (COVID-19) concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition.
- On May 20, 2020, U.S. Department of Energy (DOE) authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.
- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing

nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.

- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.

System Plan

***Responsible Assistant Manager*:** Delmar Noyes
***Technical Lead*:** Jim Lynch
***Ecology Project Manager*:** Dan McDonald, Jeff Lyon

M-062-45 Complete Negotiations 6-Months after Last Issuance of System Plan
Due: April 30, 2015.
Status: In Dispute.

M-062-45-A Complete Negotiations 6-Months after Last Issuance of System Plan
Due: April 30, 2021.
Status: In Dispute.

M-062-45-XX Complete Negotiations to Resolve Future Disputes M-062-45, Paragraphs 4 and 5
Due: December 31, 2021.
Status: In Abeyance. Reference IAMIT Determination Number 2023-008 approved April 24, 2023, which extended the temporary suspension of this milestone through May 31, 2023, keeping it "In Abeyance." This milestone deals with an assumed primary discussion topic in the "Holistic Negotiations." The outcome of the ongoing "Holistic Negotiations" between DOE, Ecology, and EPA may inform the path forward for addressing this milestone.

M-062-40I Select a Minimum of 3 Scenarios
Due: December 31, 2022.
Status: Completed.

M-062-40J Submit System Plan to Ecology[2]
Due: December 31, 2023.
Status: On Schedule.

Significant Past Accomplishments

- The U.S. Environmental Protection Agency (EPA), DOE, and Ecology met in the first mediated session of the "Holistic Negotiations" on June 25, 2020.
- On August 12, 2022, Ecology provided input on its selected scenarios for System Plan 10. Three meetings were held in the month of August to discuss Ecology's selected scenarios and document the key assumptions associated with each. Additionally, DOE and Ecology discussed and agreed on an approach for documenting and concurring on the selected scenarios in support of completing Milestone M-062-40I.
- On October 17, 2022, DOE and Ecology agreed to extend Milestone M-062-40I by 2 months; from October 31, 2022, to December 31, 2022, with approval of TPA Change

[2] Ecology denotes Washington State Department of Ecology.

Control Form (CCF) M-62-22-02. The extension recognized ongoing discussions between DOE and Ecology to incorporate actions from Agreed Order, Docket No. 21304 for evaluating the acceleration of Tanks 241-B-109 and 241-T-111 single-shell tank (SST) retrievals as part of the System Plan process. These discussions resulted in changes to the selected scenarios.

- In the month of November 2022, DOE and Ecology reviewed the detailed modeling inputs for the System Plan 10 Baseline Case, as well as Scenarios 2 and 3. DOE approved the modeling inputs for the Baseline Case and Scenario 2, and Washington River Protection Solutions began modeling the Baseline Case.
- On December 27, 2022, DOE transmitted 22-TF-002632, "Selected Scenarios for the River Protection Project System Plan, Rev. 10," to Ecology, supporting completion of Milestone M-062-40I. Ecology provided formal concurrence on the selected scenarios via letter 23-NWP-002, "Transmittal of Signed Selected Scenarios for the River Protection Project System Plan, Rev. 10," on January 3, 2023.
- On March 9, 2023, DOE and Ecology agreed to extend milestone M-062-40J by 2 months, to December 31, 2023. This extension, documented by CCF M-62-23-01, will allow additional time for DOE and Ecology to review model results from the scenario selections and applicable Agreed Order Docket No. 21304 requirements and deliverables.

Significant Planned Actions in the Next Six Months

- Continue to address and resolve disputes regarding Milestone M-062-45 and its associated milestones during "Holistic Negotiations"
- Perform modeling and analysis of selected scenarios and develop the System Plan, Rev. 10, document in support of Milestone M-062-40J
- Conduct a review of the draft System Plan document, incorporate comments, and finalize the document.

Issues

- Ecology and DOE have ended negotiations related to the M-062-45 Milestone and have initiated dispute. "Holistic Negotiation" mediated sessions began in June 2020 to resolve these disputes.
- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to

infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.

- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.
- On January 27, 2021, DOE signed and submitted CCF M-62-21-01, which proposed a 90-day extension of the due date (from 4/30/2021 to 7/29/2021) for TPA Interim Milestone M-062-45-A. Ecology disapproved the CCF. On February 16, 2021, DOE initiated dispute resolution with Ecology via letter 21-TF-000637, "Initiation of Dispute Resolution Regarding Disapproval of Hanford Federal Facility Agreement And Consent Order (Tri-Party Agreement) Change Control Form M-62-21-01". This dispute has since been extended at the project manager level for successive 30-day periods. On April 3, 2023, the dispute was extended at the project manager level for an additional 30 days, through May 15, 2023.
- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.

Acquisition of New Facilities

***Tank Farms Assistant Manager*:** Delmar Noyes
***Technical Lead*:** Janet Diediker
***Ecology Project Manager*:** Dan McDonald
Jeff Lyon

M-090-13 CD-1[3] for Interim Hanford Storage Project and CR[4] for CD-2 to ECY[5]
Due: September 30, 2025.
Status: On Schedule.

M-090-00 Acquire/Modify Facilities for Storage of First Two Years of IHLW[6] from the WTP[7] Operations
Due: December 31, 2036.
Status: In Dispute.

M-047-00 Completion of Work for Management of Secondary Waste from the WTP
Due: To be determined.
Status: In Dispute.

Significant Past Accomplishments

- None.

Significant Planned Actions in the Next Six Months

- None.

Issues

- Letter 19-ORP-0005, "Milestones in the Hanford Federal Facility Agreement and Consent Order Placed 'In Abeyance' During the System Plan 8 Negotiations," was issued on June 21, 2019, from DOE to Ecology. The letter outlined a number of milestones (including M-047-00 and M-090-00) that DOE requested to be placed in abeyance due to the potential impacts that holistic negotiations may have on these milestones. The letter also stated that if Ecology disagreed with DOE's proposal to maintain these milestones in abeyance, that 19-ORP-0005 constituted DOE's notice that it is initiating the dispute resolution process. Ecology disagreed with DOE's request to place the milestones in abeyance via letter 19-NWP-097, "Correspondence Regarding Tank Waste Retrieval and

[3] CD denotes critical decision.
[4] CR denotes change request.
[5] ECY denotes Washington State Department of Ecology.
[6] IHLW denotes immobilized high-level waste.
[7] WTP denotes Waste Treatment and Immobilization Plant.

Treatment Pathway at Hanford," issued June 27, 2019, thus placing these milestones in dispute resolution.

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.
- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.
- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.

Supplemental Treatment and Resource Conservation and Recovery Act Part B Permit Applications

***Tank Farms Assistant Manager*:** Delmar Noyes
***Technical Lead*:** Richard Valle
***Ecology Project Manager*:** Dan McDonald

M-062-45-ZZ **Negotiate a One-Time Supplemental Treatment Selection**
Due: April 30, 2015.
Status: In Dispute.

M-062-45-ZZ-A **Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones**
Due: April 30, 2015.
Status: In Dispute.

M-062-31-T01 **Complete Final Design and Submit RCRA[8] Part B Permit Modification Request for Enhanced WTP & Supplemental Treatment**
Due: April 30, 2016.
Status: In Dispute.

M-062-32-T01 **Start Construction of Supplemental Vitrification Facility and/or WTP Enhancements**
Due: April 30, 2018.
Status: In Dispute.

M-062-33-T01 **Complete Construction of Supplemental Treatment Vitrification Facility and/or WTP Enhancements**
Due: April 30, 2021.
Status: In Dispute.

M-062-34-T01 **Complete Hot Commissioning of Supplemental Treatment Vitrification Facility and/or WTP Enhancements**
Due: December 30, 2022.
Status: In Dispute.

M-062-52 **Achieve Substantial Completion of Secondary Waste Construction Necessary for LAW[9] Hot Commissioning**
Due: June 30, 2023.
Status: On Schedule.

M-062-21 **Annually Submit Data Which Demonstrates Operation of the WTP at a Rate Sufficient to Meet M-062-00**
Due: August 31, 2023.
Status: At Risk.

[8] RCRA denotes *Resource Conservation and Recovery Act*.
[9] LAW denotes low-activity waste.

M-062-21A Annually Submit Data Which Demonstrates Operation of WTP at a Rate Sufficient to Meet M-062-00

Due: August 31, 2024.
Status: At Risk.

M-062-00 Complete Pretreatment Processing and Vitrification of HLW[10] and LAW Tank Wastes

Due: December 31, 2047.
Status: At Risk.

Significant Past Accomplishments

- CCF M-62-22-01 was approved by DOE and Ecology on November 29, 2022, which extended the due date of interim Milestone M-062-21 by 6 months, from February 28, 2023, to August 31, 2023, and annually thereafter.

Significant Planned Actions in the Next Six Months

- See the "System Plan" section, above, for updates related to the M-062-45 Milestone negotiations.

Issues

- Milestone M-062-21 is still identified as "At Risk," although the due date was extended for 6 months via CCF M-62-22-01. The extension will allow DOE and Ecology to continue discussions and "Holistic Negotiations" that might affect this milestone. Operational data for the WTP, as described for the milestone, will not be available to support accurate mission forecasting.
- Ecology and DOE have ended negotiations related to the M-062-45 Milestone and have initiated dispute. "Holistic Negotiation" mediated sessions began in June 2020 to resolve these disputes.
- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.

[10] HLW denotes high-level waste.

- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.
- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.

Low-Activity Waste Pretreatment System

***Tank Farms Assistant Manager*:** Delmar Noyes
***Technical Lead*:** Janet Diediker
***Ecology Project Manager*:** Dan McDonald

M-062-56 Submit Permit Application for Design and Construction of the LAWP[11] Capability
Due: December 31, 2023.
Status: On Schedule.

M-062-60 Submit Disposition Pathways Evaluation for Spent IX[12] Columns as Primary Document to Ecology
Due: June 30, 2026.
Status: On Schedule.

M-062-61 Submit Updated TSCR Closure Plan as a Permit Modification Request to Ecology
Due: April 30, 2029.
Status: On Schedule.

M-062-62 Complete Negotiations to Establish HFFACO[13] Milestones for Disposition of Spent IX Columns
Due: January 31, 2035.
Status: On Schedule.

M-062-62-T01 Submit Conceptual Design Package (30% Design) for Facility to Remove/Prepare/Process IX Waste Media
Due: December 30, 2040.
Status: On Schedule.

M-062-62-T02 Submit Conceptual Design Package (60% Design) for Facility to Remove/Prepare/Process IX Waste Media
Due: June 30, 2042.
Status: On Schedule.

M-062-63 Submit as PMR[14], Final Design (90-100% Design) for Facility to Remove/Prepare/Process IX Waste Media
Due: September 30, 2043.
Status: On Schedule.

[11] LAWP denotes low-activity waste pretreatment.
[12] IX denotes ion exchange.
[13] HFFACO denotes *Hanford Federal Facility Agreement and Consent Order.*
[14] PMR denotes permit modification request.

Significant Past Accomplishments

- Initiated conceptual design for additional LAWP capability.

Significant Planned Actions in the Next Six Months

- Complete and issue the AoA report for the LAWP capability
- Continue conceptual design for the LAWP capability based on selected alternative.

Issues

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.
- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.
- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.

Tank-Side Cesium Removal System

***Tank Farms Assistant Manager*:** Delmar Noyes
Technical Lead: Bibek Tamang
***Ecology Project Manager*:** Dan McDonald

This section only covers the Tank Farms Project scope of the DFLAW mission. Please refer to the Consent Decree monthly report for the WTP Project scope pertaining to DFLAW.

Significant Past Accomplishments

- TSCR received CD-4a approval from the Energy Systems Acquisition Advisory Board on December 10, 2021
- TSCR initiated operations on January 24, 2022
- Completed Declaration of Readiness for Waste Feed Delivery upgrades on February 8, 2022
- Completed the first two batches of the first TSCR processing campaign and placed the spent IX columns on the TSCR pad
- Received CD-4 approval for the Waste Feed Delivery Project on April 12, 2022
- Initiated processing of the third batch of the first TSCR processing campaign.

Significant Planned Actions in the Next Six Months

- Complete the first TSCR processing campaign.

Issues

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.
- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.

- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
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Test Bed Initiative Demonstration

***Tank Farms Assistant Manager*:** Delmar Noyes
***Technical Lead*:** Richard Valle
***Ecology Project Manager*:** TBD

DOE proposed to undertake a Test Bed Initiative (TBI) Demonstration. If the TBI Demonstration is conducted, approximately 2,000 gallons of waste from Tank 241-SY-101 at the Hanford Site will be pretreated to remove most key radionuclides, then solidified (grouted) offsite, and subsequently disposed of at a licensed and permitted disposal facility outside of Washington State. DOE issued DOE-ORP-2021-01, Rev. 0, *Draft Waste Incidental to Reprocessing (WIR) Evaluation for the TBI Demonstration* in late 2021. Following public comment on the Draft WIR Evaluation and consultation with the Nuclear Regulatory Commission, DOE may issue a Final WIR Evaluation and a potential WIR Determination. DOE will also complete *National Environmental Policy Act* analysis prior to making a decision about whether to proceed with the TBI Demonstration.

Significant Past Accomplishments

- The Notice of Availability for the *Final Waste Incidental to Reprocessing Evaluation for the Test Bed Initiative Demonstration, U.S. Department of Energy* (Final WIR Evaluation) and associated *Waste Incidental to Reprocessing Determination for the Test Bed Initiative Demonstration at the Hanford Site, Washington* (WIR Determination) was published in the Federal Register on March 20, 2023 (88 FR 16615). The information demonstrates that the waste from DOE's proposed TBI Demonstration is WIR of spent nuclear fuel, is not high-level radioactive waste, and may be managed as low-level radioactive waste.
  - The Final WIR Evaluation was issued as DOE/ORP-2022-02, Revision 0.
  - The WIR Determination was issued as ORP-68455, Revision 0.
- DOE prepared the *Final Environmental Assessment of the Test Bed Initiative Demonstration* (Final EA). Based on the analysis in the Final EA, the preparation of an environmental impact statement is not required, and DOE issued a Finding of No Significant Impact (FONSI).
  - The Final EA and FONSI were issued under DOE/EA-2086 (March 2023).
- Began informal review sessions with Ecology on the draft Research, Development, and Demonstration permit application package.

Significant Planned Actions in the Next Six Months

- Complete required permitting actions to support installation and operation of the TBI Demonstration equipment.

Issues

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.
- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.
- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.

242-A Evaporator Status

***Tank Farms Assistant Manager*:** Delmar Noyes
***Technical Lead*:** Paul Hernandez
***Ecology Project Manager*:** Ambika Chakravartty

The 242-A Evaporator campaign strategy is identified in the following table:

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
2023	EC-11	AW-102	AP-103	EC-11 to be performed after completion of repairs related to a freeze event at 242-A.

FY = fiscal year.

Significant Past Accomplishments

- Completed 242-A Evaporator ultrasonic test inspection of steam lines
- Continued replacement of the PC Recycle F-C-4 and F-C-5 filter housings
- Completed pipe-in-pipe installation between AW Tank Farm and 242-A Evaporator for the slurry and feed pipe-in-pipe transfer line replacement
- Completed AW-B, AW-02A, AW-02E, and 242-A Evaporator's pump room jumper installation for the 242-A Evaporator slurry and feed pipe-in-pipe transfer line replacement
- Completed leak testing for AW-02E for the 242-A Evaporator's slurry and feed pipe-in-pipe transfer line replacement
- Completed backfill/restoration and reopened 4th Street for the 242-A Evaporator's slurry and feed pipe-in-pipe transfer line replacement
- Completed 100 percent design and fabrication for the replacement of the U-Joint valve actuator driveshafts/mounting assemblies on the 242-A Evaporator's dump valves
- Completed calibration and testing of instruments for the 242-A Evaporator Documented Safety Analysis safety system upgrades
- Completed fit for use evaluation of 242-A Evaporator's condenser raw water system
- Received new PB-2 replacement pump
- Completed leak testing for AW-02A, AW-B, and 242-A Evaporator's pump room jumpers and fieldwork prior to turnover to operations for the 242-A Evaporator's slurry and feed pipe-in-pipe transfer line replacement
- Completed replacement of the U-Joint valve actuator driveshafts and mounting assemblies on the 242-A Evaporator's dump valve.

Significant Planned Actions in the Next Six Months

- Receive new PB-1 replacement pump
- Initiate cold run activities
- Conduct Contractor and DOE Readiness Assessment for restart of 242-A Evaporator
- Initiate replacement of PB-1 Pump seal water flow transmitter and components
- Initiate replacement of PB-2 Pump
- Complete repairs and fitness-for-use evaluation related to a freeze event at the 242-A Evaporator.

Issues

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.
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- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.
- December 25, 2022, the 242-A Evaporator experienced a freeze event. It was discovered that the K1 ventilation heating system was not operational and several liquid piping systems were discovered to be damaged. Engineering evaluations are in development and repairs are underway.

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

***Tank Farms Assistant Manager*:** Delmar Noyes
Technical Lead: Bibek Tamang
***Ecology Project Manager*:** Ambika Chakravartty

M-062-51 Achieve Substantial Completion of LERF[15]/ETF[16] Construction Upgrades Necessary for LAW Hot Commissioning
Due: April 15, 2023.
Status: Complete.

Significant Past Accomplishments

Operations

- None.

Projects

- Continued fieldwork activities for the ETF Load-In Station expansion (e.g., 2025ED instrumentation)
- Continued fieldwork activities for the ETF secondary waste storage and loadout upgrades (e.g., tank bottom supports and loadout building electrical)
- Continued fieldwork activities for the ETF supplemental organic treatment system (e.g., insulation).

Significant Planned Actions in the Next Six Months

Operations

- Receive liquid effluent generated by tuning material from initial DFLAW cold commissioning (Phase 1B)
- Prepare facilities for Fiscal Year 2023 processing campaign(s)
- Develop process to remove accumulated solids inside the piping system at the LERF Basin 44 catch basin.

Projects

- Complete testing and turnover activities for the ETF freeze protection upgrade to support enhanced facility operation
- Complete testing and turnover activities for the balance of ETF monitoring and control system upgrades, as the previous system is outdated

[15] LERF denotes Liquid Effluent Retention Facility.
[16] ETF denotes Effluent Treatment Facility.

- Complete testing and turnover activities for the ETF carbon dioxide removal skid to provide the capability to treat the WTP DFLAW effluent
- Complete testing and turnover activities for the ETF redundant filtration system to reduce processing down time
- Complete testing and turnover activities for the LERF Basin 41 installation for additional capacity
- Complete testing and turnover activities for the ETF vessel offgas upgrade to support enhanced facility operation
- Complete testing and turnover activities for the ETF motor control center (E-House) upgrade to improve electrical infrastructure for enhanced facility operation
- Complete testing and turnover activities for the ETF chiller addition to provide additional cooling capability for the ETF upgrade projects
- Complete testing and turnover activities for the ETF secondary waste storage and loadout upgrades to provide the capability to manage the WTP DFLAW effluent
- Complete testing and turnover activities for the interior coating inspection and repair of Verification Tank 1A
- Complete testing and turnover activities for the ETF supplemental organic treatment (i.e., steam stripping) system to provide the capability to treat the WTP DFLAW effluent
- Complete testing and turnover activities for the 2025ED Load-In Station expansion to support enhanced facility operation.

Issues

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
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- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was

performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.

- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.
- Accumulated solids were discovered inside the piping system at the LERF Basin 44 catch basin on October 14, 2021. Operational restrictions have been implemented since October 18, 2021, to isolate the affected area until removal process is completed.

Liquid Effluent Retention Facility Volumes

LERF liquid levels, inventory, and received waste are shown in the table below. Volumes in the table are estimated.[17]

Description	242AL-42 (Basin 42)	242AL-43 (Basin 43)	242AL-44 (Basin 44)
AZ-301 Condensate	-	-	-
Mixed Waste Trench 31 and 34	-	-	+ 42,000
Other [a]	-	-	+ 32,100
Processing Campaign(s)	-	-	-
Total Volume	900,000	5,780,000	2,300,000[b]

[a] Effluent Treatment Facility/Liquid Effluent Retention Facility-generated waste and basin cover water.

[b] Basin level was visually checked. Level included water on top of cover, actual basin level may be lower.

Data Date: April 30, 2023.

Values shown in gallons.

[17] The volume in each Liquid Effluent Retention Facility basin is calculated from liquid level sensor readings. Therefore, based on sensor fluctuations and/or environmental effects (e.g., precipitation, temperature), values for basin volumes may vary slightly from the net inputs and outputs shown for the basin.

Tank System Update

***Tank Farms Assistant Manager*:** Delmar Noyes
Technical Lead: Erik Nelson
***Ecology Project Manager*:** Jeff Lyon
Ambika Chakravartty
Nina Menard

Reports are identified as completed (internal access only) or released (external access).

M-042-10 Complete Tank Integrity Examination of DST[18] Components to Assess Integrity
Due: December 31, 2026.
Status: On Schedule (50% Complete).

M-045-91E5 Provide SST Farms Dome Deflection Surveys Every 2 Years to Ecology
Due: September 30, 2023.
Status: On Schedule.

M-045-91K-T01 Submit Report of the Initial Baseline Visual Inspection of all SSTs Remaining to be Inspected
Due: March 31, 2024.
Status: Completed.

M-045-91L Obtain Assessment Reviewed/Certified by an IQRPE[19] Attesting to SST Structural Integrity
Due: September 30, 2034.
Status: On Schedule.

Double-Shell Tank Integrity

Significant Past Accomplishments

- Completed DST annulus visual inspections at Tanks 241-AN-104, 241-AW-101, 241-AW-102, 241-AW-103, 241-AW-104, 241-AW-105, 241-AW-106, 214-AY-102, 241-SY-101, 241-SY-102, and 241-SY-103
- Completed ultrasonic testing at Tanks 241-SY-102 and 241-SY-103.

Significant Planned Actions in the Next Six Months

- Complete ultrasonic testing inspection fieldwork at Tanks 241-AP-101 and 241-AP-104.

[18] DST denotes double-shell tank.
[19] IQRPE denotes Independent Qualified Registered Professional Engineer.

- Complete pressure encasement test and National Association of Corrosion Engineers' (NACE) inspections of evaporator drain lines 241-AP-02A, 241-AP-07A, and 241-AW-02D
- Complete NACE inspections of 241-AZ-01B, 241-AZ-01C, and 241-AZ-02B.

Ultrasonic Testing Report Status

- Ultrasonic testing report for Tank 241-SY-102 was released as RPP-RPT-64096, *Ultrasonic Testing and Air Slot Visual Inspection Results for Double Shell Tank 241-SY-102 - FY 2023*, Rev. 0
- Draft of ultrasonic testing report for Tank 241-SY-103 is in progress.

Issues

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
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Single-Shell Tank Integrity

Significant Past Accomplishments

- Transmitted 22-TF-002813, "Completion of Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-045-91K," to Ecology on September 29, 2022, documenting completion of TPA Milestone M-045-91K.
- Transmitted 22-TF-003768, "Completion of Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Target Date M-045-91K-T01," to Ecology on December 1, 2022, documenting completion of TPA target date for Milestone M-045-91K-T01.
- Completed SST laser inspections:
  - Tank 241-SX-111 (February 2023)
  - Tank 241-T-111 (February 2023, March 2023).
- Completed SST visual inspections:
  - Tank 241-AX-101 (February 2023, March 2023)
  - Tank 241-BY-101 (April 2023)
  - Tank 241-BY-102 (March 2023, April 2023)
  - Tank 241-BY-111 (March 2023)
  - Tank 241-C-112 (April 2023)
  - Tank 241-SX-111 (February 2023)
  - Tank 241-T-111 (January 2023 and February 2023)
  - Tank 241-U-104 (March 2023).

Significant Planned Actions in the Next Six Months

- Release RPP-RPT-63488, *Structural Assessment of Concrete Damage in the Hanford SX Single-Shell Tanks*, Rev. 0
- Complete SST visual inspection at Tanks 241-A-106, 241-BY-106, 241-BX-101, 241-BX-110, 241-BX-111, 241-C-101, 241-C-110, 241-SX-111, and 241-SX-112.

RPP-9937, *Single-Shell Tank System Leak Detection and Monitoring Functions and Requirements Document*, Rev. 5 Updates

- Baseline Change Authorizations implemented:
  - Three interstitial-liquid level SST Baseline Change Authorizations were implemented due to waste redistribution after pumping (Tanks 241-BY-105, 241-TX-112, and 241-TX-116).
- Specification limit exceedance:
  - Two Miscellaneous Underground Storage Tanks exceeded their lower specification limits (Tanks 241-A-350 and 241-EW-151) due to A Tank Farm exhauster operation and completion of pumping operations, respectively

  - One interstitial-liquid level exceeded its upper specification limit (Tank 241-BY-103) due to a known intrusion.

- Intrusion:
  - None.
- Monitoring Change:
  - None.
- Primary Monitoring Device repair:
  - None.
- Non-Valid required readings due to a Suspect Verifying and Validating designation:
  - None.

Issues

- Tank 241-SX-111 was inspected visually in mid-August 2020. Spalled/cracked concrete was identified in various locations on the tank dome. Concrete was noted on the waste surface and, when compared to past visual inspections, suggests that the spalling occurred post-1987. On September 1, 2020, a laser scan of Tank 241-SX-111 was performed. Review of the laser scan results identified a new spalling location since the visual inspection. Tank 241-SX-111 was visually inspected in August 2021 to support the ongoing analysis. During the August 2021 visual inspection, additional spalling was observed. A subsequent laser scan was performed in September 2021. RPP-RPT-63488, Rev. 0, concluded that the levels of spalling identified in the February 2020 through August 2021 inspections of the SX-tank domes do not pose a threat to the structural integrity of the tanks. An additional visual inspection and laser scan were performed at Tank 241-SX-111 in November 2021. An analysis of the November 2021 inspection results identified one new area of spalling. A visual inspection and laser scan were performed in February 2022 and no further spalling was noted. Additional visual and laser scan field inspections were completed in May 2022, August 2022, November 2022, and February 2023. These inspections indicated minor increases in cracking and spalling. The observed degradation remains bounded by RPP-RPT-63488.
- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition, protective of the community, the region, and the environment.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.

- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.
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Independent Qualified Registered Professional Engineer Activities

- DST system:
  - RPP-RPT-58441, *Double-Shell Tank System Integrity Assessment Report (DSTAR)*, Rev. 1, was completed in 2016
  - The IQRPE recommended the next DST system integrity assessment report be completed in 10 years.
- SST system:
  - Completed M-045-9II Milestone report RPP-IQRPE-50028, *Single-Shell Tank System Structural Integrity Assessment Report*, in 2018
  - The IQRPE recommended the next SST structural integrity assessment be completed in 16 years. Ecology transmitted letter 19-NWP-009, "*Single-Shell Tank Structural Integrity Assessment*, RPP-IQRPE-50028," on January 16, 2019. The letter noted Ecology's agreement with the IQRPE's 16-year recommendation.
- 242-A Evaporator:
  - Completed RPP-RPT-60098, *242-A Evaporator System Integrity Assessment Report*, Rev. 0, in 2018
  - The IQRPE recommended the next 242-A Evaporator system integrity assessment be completed in 15 years. Ecology transmitted letter 18-NWP-114, "Department of Ecology's (Ecology's) Comments on the *242-A Evaporator System Integrity Assessment Report*, RPP-RPT-60098, Revision 0," on July 19, 2018. The letter noted Ecology's disagreement with the IQRPE's 15-year recommendation. The Hanford Sitewide permit, Rev. 8C, currently provides for 242-A Evaporator system integrity assessments at a frequency of 10 years. DOE will continue to comply with the permit condition.
- ETF:
  - Completed RPP-IQRPE-50043, *Effluent Treatment Facility (ETF) IQRPE Integrity Assessment*, in 2019
  - The IQRPE recommended the next ETF integrity assessment be completed in 10 years.
- 219-S tank system:
  - Completed RPP-IQRPE-50029, *219-S Integrity Assessment Report*, in February 2020
  - The IQRPE recommended the next 219-S Tank system integrity assessment be completed in 20 years.

In-Tank Characterization and Summary

***Tank Farms Assistant Manager*:** Delmar Noyes
Technical Lead: Erik Nelson
***Ecology Project Manager*:** Jeff Lyon
Ambika Chakravartty

Reports Completed or Released

For April 2023, the following reports were completed (internal access only) or released (external access):

- Completed:
  - RPP-RPT-63022, *Final Analytical Report for Tank 241-AN-107 Core Sampling and Analysis Plan - Fiscal Year 2020*, Rev. 2
  - RPP-RPT-64243, *Final Analytical Report for Tank AZ-301 Liquid, 2023-03*, Rev. 0
  - RPP-PLAN-65431, *Tank 241-SY-103 Grab Sampling and Analysis Plan – Fiscal Year 2023*, Rev. 0.
- Released:
  - HNF-EP-0182, *Waste Tank Summary Report for Month Ending February 28, 2023*, Rev. 422.

Tank Sampling

Significant Past Accomplishments

- For April 2023, the following tank sampling was conducted:
  - Tank 241-AN-104 core sampling continued.

Significant Planned Actions in the Next Six Months

- Complete core sampling of Tank 241-AN-104
- Complete grab sampling of Tanks 241-AN-104, 241-AN-107, 241-AP-106, 241-AY-101, 241-AZ-102, and 241-SY-103.

Issues

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mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.

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Best-Basis Inventory Updates

Significant Past Accomplishments

- Best-basis inventory updates for the following tanks were completed in April 2023:
  - RPP-RPT-58697, *Derivation of Best-Basis Inventory for Tank 241-TX-106 as of April 1, 2023*, Rev. 2
  - RPP-RPT-59854, *Derivation of Best-Basis Inventory for Tank 241-AX-103 as of April 1, 2023*, Rev. 5.

Significant Planned Actions in the Next Month

- Best-basis inventory updates for the following tanks are currently planned to be completed in May 2023:
  - Tank 241-AX-101
  - Tank 241-S-107
  - Tank 241-TX-110.

Issues

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- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.
- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.

Single-Shell Tank Closure Program

***Tank Farms Assistant Manager*:** Delmar Noyes
Technical Lead: Becky Blackwell
***Ecology Project Manager*:** Jeff Lyon

M-045-59 Control Surface Water Infiltration Pathways as Needed

Due: To be determined. Will be implemented if needed to control or significantly reduce the likelihood of migration of subsurface contamination to groundwater at the SST waste management areas (WMA) (pending the Corrective Measures Study report, Milestone M-045-58, and implementation of other interim corrective measures).

Status: On Schedule.

M-045-62 Submit the Draft Tier 3 Closure Plan with Corrective Measures in Phase 2 CMIP[20] for WMA-C[21]

Due: To be determined. To be established in accordance with the date identified in the M-045-82 Milestone Tier 2 Closure Plan.

Status: On Schedule.

M-045-83 Complete the Closure of WMA-C by Completing Closure Activities Specified in the Tier 2 Closure Plan

Due: To be determined. To be established in accordance with the date identified in the M-045-82 Milestone Tier 2 Closure Plan.

Status: On Schedule.

M-045-85 Initiate Negotiations of HFFACO Interim Milestones for Closure of Remaining WMAs

Due: January 31, 2022.

Status: In Abeyance. Reference IAMIT Determination Number 2023-007 approved April 24, 2023, which temporarily suspended this milestone through May 31, 2023, and placed it "In Abeyance." This milestone deals with an assumed primary discussion topic in the "Holistic Negotiations." The outcome of the ongoing "Holistic Negotiations" between DOE, Ecology, and EPA may inform the path forward for addressing this milestone.

M-045-56S Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July 2023)

Due: July 31, 2023.

Status: On Schedule.

[20] CMIP denotes Corrective Measures Implementation Work Plan.
[21] WMA-C denotes C Tank Farm waste management area.

M-045-92 Complete Installation of 4 Additional Interim Barriers
Due: October 31, 2023.
Status: On Schedule.

M-045-92AB Complete Construction of Barrier 4 in 241-U Farm
Due: October 31, 2023.
Status: On Schedule.

M-045-92AG Submit Yearly Reports Summarizing the Results of Maintenance and Performance Monitoring Activities
Due: October 31, 2023.
Status: On Schedule.

M-045-56T Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July 2024)
Due: July 31, 2024.
Status: On Schedule.

M-045-102 Submit to Ecology a Performance Assessment Maintenance Plan for WMA A/AX[22] PA[23]
Due: September 30, 2025.
Status: On Schedule.

M-045-103 Submit to Ecology a PMR with Tier 2 RCRA Closure Plan for WMA A/AX and Schedule for Tier 3 Schedule
Due: September 30, 2026.
Status: On Schedule.

M-045-104 Submit to Ecology as a PMR the Post-Closure Plan for WMA A/AX
Due: September 30, 2028.
Status: On Schedule.

M-045-00 Complete Closure of All SST Farms
Due: January 31, 2043.
Status: At Risk. Decision document 2016-005, signed August 22, 2016, requires this milestone to be addressed with the negotiations supporting M-062-45 Milestone.

Significant Past Accomplishments

- Completed mobilization for construction of the U Tank Farm interim surface barrier on April 4, 2023, in support of Milestone M-045-92AB.
- Submitted to Ecology the following SST System closure plans for the Hanford Site Hazardous Waste Facility Permit via letter 22-ECD-001344, “Transmittal of the Revised

[22] WMA A/AX denotes Tank Farms A and AX waste management areas.
[23] PA denotes performance assessment.

Hanford Facility Resource Conservation and Recovery Act Tier 1 Closure Plan for the Single-Shell Tank System and Tier 2 Closure Action Plan and Tier 3 Component Closure Plans for Waste Management Area C," dated April 10, 2023:

- RPP-RPT-58858, *Tier 1 Closure Plan Single-Shell Tank System*, Rev. 3
- RPP-RPT-59389, *Tier 2 Resource Conservation and Recovery Act (RCRA) Closure Action Plan for Waste Management Area C*, Rev. 1
- RPP-RPT-59390, *Tier 3 Resource Conservation and Recovery Act (RCRA) Component Closure Activity Plan for 241-C-200 Series Tanks*, Rev. 3
- RPP-PLAN-63246, *Tier 3 Resource Conservation and Recovery Act (RCRA) Component Closure Activity Plan for the 241-C-107 through 241-C-112 Tanks*, Rev. 2
- RPP-PLAN-63990, *Tier 3 Resource Conservation and Recovery Act (RCRA) Component Closure Activity Plan for the 241-C-101 through 241-C-106 Tanks*, Rev. 1.

- Submitted to Ecology RPP-RPT-61684, *Maintenance and Performance Monitoring Plan for the Interim Surface Barriers Program*, Rev. 3B, via letter 23-TF-001637, "The U.S. Department of Energy Response to Letter 23-NWP-038 from the Washington State Department of Ecology and Transmittal of RPP-RPT-61684, 'Maintenance and Performance Monitoring Plan for the Interim Surface Barriers Program,' Rev. 3B," dated April 27, 2023. RPP-RPT-61684 was updated in response to Ecology comments provided via letter 23-NWP-038, "Re: Transmittal of the Department of Ecology's Review Comment Records for the *Maintenance and Performance Monitoring Plan for the Interim Barriers Program*, RPP-RPT-61684, Revision 3A; *FY2020 Annual Interim Surface Barriers Monitoring Report*, RPP-RPT-63200, Revision 1; and *FY2021 Interim Surface Barriers Annual Monitoring Report*, RPP-RPT-63775, Revision 0," dated March 31, 2023.

Significant Planned Activities in the Next Six Months

- Meet with Ecology to fulfill Milestone M-045-56S. The annual meeting has been scheduled for June 28, 2023.
- Complete construction of the U Tank Farm interim surface barrier to fulfill Milestone M-045-92AB.
- Submit to Ecology the annual interim surface barriers monitoring report addressing Fiscal Year 2022 activities to fulfill Milestone M-045-92AG.
- Respond to Ecology's comments on RPP-PLAN-64857, *Phase 2 RCRA Facility Investigation/Corrective Measures Study Work Plan for Waste Management Area A-AX*, Rev. 0, provided via letter 22-NWP-187, "Transmittal of the Department of Ecology's Review Comment Record for *Phase 2 RCRA Facility Investigation/Corrective Measures Study Work Plan for Waste Management Area A-AX,* RPP-PLAN-64857, Revision 0," dated December 30, 2022. DOE requested an extension to provide responses to Ecology's comments and to provide a plan for updating the document by July 31, 2023, via letter 23-TF-001336, "Request for Additional Extension for Comment Response and Plan for

Document Update: RPP-PLAN-64857, 'Phase 2 RCRA Facility Investigation/Corrective Measures Study Work Plan for Waste Management Area A-AX,' Rev. 0," dated April 27, 2023. RPP-PLAN-64857, Rev. 0, was submitted to Ecology via letter 22-TF-002530, "The U.S. Department of Energy Transmittal of RPP-PLAN-64857, 'Phase 2 RCRA Facility Investigation/Corrective Measures Study Work Plan for Waste Management Area A-AX,' Rev. 0," dated August 31, 2022, to complete Milestone M-045-98, "Submit to Ecology as a Primary Document a RFI/CMS work plan for WMA A-AX, including an implementation schedule in accordance with HFFACO [Tri-Party Agreement] Action Plan Section 11.6."

Issues

- On March 24, 2020, the Hanford Site moved to an essential mission-critical operations posture in recognition of increasing COVID-19 concerns. During this time, the majority of the Hanford Site workforce transitioned to telework, and a limited number of workers reported to the site to perform activities necessary to maintain the site in a safe condition.
- On May 20, 2020, DOE authorized the Hanford Site to move to Phase 1 of the Hanford Site Remobilization Plan. Hanford Site operations began Phase 1 on May 26, 2020. During Phase 1, essential mission-critical operations were continued and targeted mobilization and low-risk workscope, such as implementation of COVID-19 protocols to infrastructure and facilities, required training, medical evaluations, and limited construction activities were added.
- The Hanford Site transitioned to Phase 2 of the Hanford Site Remobilization Plan beginning August 31, 2020. In Phase 2, the workforce that was performing portable work via telework generally continued to telework. The majority of the workforce performing nonportable work returned to the site to progress work activities, leveraging established COVID-19 controls.
- The Hanford Site effectively transitioned to Phase 3 of the Hanford Site Remobilization Plan beginning March 14, 2022. In Phase 3, the majority of the workforce that was performing portable work via telework is now performing work in a hybrid in-office/telework environment. The majority of the workforce performing nonportable work remains at the site to progress work activities. DOE will continue to monitor COVID-19 Community Levels for Benton and Franklin Counties and adjust COVID-19 controls as appropriate.
- DOE and its contractors continue to evaluate ongoing risks and potential impacts to planned work, project costs and schedules, and commitments in parallel with implementing actions intended to mitigate or eliminate further impacts.

Single-Shell Tank Retrieval Program

***Tank Farms Assistant Manager*:** Delmar Noyes
Technical Lead: Jim Greene
***Ecology Project Manager*:** Jeff Lyon

M-045-15 Completion of Tank A-103 SST Waste Retrieval

Due: September 30, 2022.

Status: In Abeyance. Reference IAMIT Determination Number 2023-006 approved April 24, 2023, which temporarily suspended this milestone through May 31, 2023, and placed it "In Abeyance." DOE previously reported TPA Milestone M-045-15 as "At-Risk" during the July 2021 TPA Project Managers' Monthly meeting. This milestone deals with an assumed primary discussion topic in the "Holistic Negotiations." The outcome of the ongoing "Holistic Negotiations" between DOE, Ecology, and EPA may inform the path forward for addressing this milestone.

M-045-15A Submit a Retrieval Data Report Pursuant to Agreement Appendix I

Due: September 30, 2022.

Status: In Abeyance. Reference IAMIT Determination Number 2023-006 approved April 24, 2023, which temporarily suspended this milestone through May 31, 2023, and placed it "In Abeyance." This milestone deals with an assumed primary discussion topic in the "Holistic Negotiations." The outcome of the ongoing "Holistic Negotiations" between DOE, Ecology, and EPA may inform the path forward for addressing this milestone.

M-045-15D Submit, if appropriate, an exception to Waste Retrieval Criteria Pursuant to Agreement Appendix H

Due: September 30, 2022.

Status: In Abeyance. Reference IAMIT Determination Number 2023-006 approved April 24, 2023, which temporarily suspended this milestone through May 31, 2023, and placed it "In Abeyance." This milestone deals with an assumed primary discussion topic in the "Holistic Negotiations." The outcome of the ongoing "Holistic Negotiations" between DOE, Ecology, and EPA may inform the path forward for addressing this milestone.

M-045-86 Submit Retrieval Data Report to Ecology for 19 Tanks Retrieved Under Consent Decree.

Due: To Be Determined. Eleven Retrieval Data Reports have been submitted for tanks that have been retrieved and Milestones M-045-86A through M-045-86K have been completed. Tank 241-AX-104 currently has a Retrieval Data Report submittal due date of September 29, 2023 (Milestone M-045-86L). Tank 241-AX-103 currently has a Retrieval Data Report submittal due date of January 17, 2024 (Milestone M-045-86M). Tanks 241-A-101, 241-A-102, 241-A-104, 241-A-105, 241-A-106, and 241-AX-101 have submittal dates to be determined (Milestones M-045-86N through M-045-86S).

Status: On Schedule.

M-045-70 Complete Waste Retrieval from all Remaining Single Shell Tanks (SSTs)

Due: December 31, 2040.

Status: At Risk. Reference IAMIT Decision Document 2016-005 signed August 22, 2016, which requires this milestone be addressed with the negotiations supporting M-062-45 Milestone.

Significant Past Accomplishments

- Refer to the Consent Decree monthly report.

Significant Planned Activities in the Next Six Months

- Refer to the Consent Decree monthly report.

Issues

- Refer to the Consent Decree monthly report.

Tank Operations Contract Overview

Earned Value Data: Fiscal Year 2023 March-2023

Tank Farms ORP-0014
WBS 5 - River Protection Project
(in $000s)

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	$70,206	$68,973	$66,674	($1,234)	$2,299	0.98	1.03			
FYTD	$310,886	$330,457	$323,352	$19,571	$7,105	1.06	1.02	$741,296		
CTD	$7,976,036	$7,950,188	$7,859,055	($25,848)	$91,133	1.00	1.01	$8,406,446	$8,318,992	$87,454

ACWP	=	actual cost of work performed.	CV	=	cost variance.
BAC	=	budget at completion.	EAC	=	estimate at completion.
BCWP	=	budgeted cost of work performed.	FYTD	=	fiscal year to date.
BCWS	=	budgeted cost of work scheduled.	SPI	=	schedule performance index.
CM	=	current month.	SV	=	schedule variance.
CPI	=	cost performance index.	VAC	=	variance at completion.
CTD	=	contract to date.	WBS	=	work breakdown structure.

The Earned Value Management System is intended to provide a status of how the contractor is progressing against its monthly planned work (i.e., schedule), and whether it is costing more or less to complete the work than planned. The earned value analysis is not intended to be a measurement of performance against existing TPA milestones.

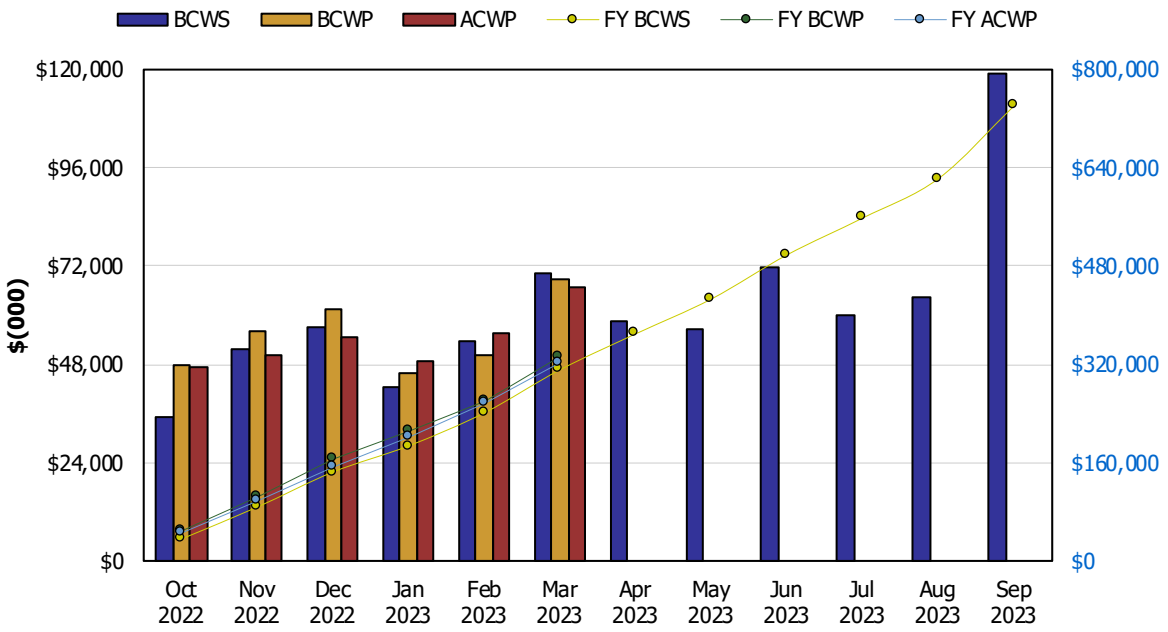
The project plan is measured by expressing the schedule in terms of dollars spread over the anticipated project duration, and then for each month, determining how much of the planned work was accomplished or "earned," as measured in equivalent dollars. If more work is accomplished than planned, then the project is ahead of schedule and has a favorable schedule variance (SV). Similarly, if less work is accomplished, the project is behind schedule and has an unfavorable SV. Accomplished work is reported in the month it was completed, which may not be when it was planned. For example, work completed in a month earlier than planned would be reported as a favorable SV for the month in which it was completed but would be reported as an unfavorable SV in the month it was planned. The end result would be a net zero overall cumulative SV over these months. Likewise, work completed late will recover an earlier reported unfavorable SV.

The cost variance (CV) measures the actual cost of work performed against the earned dollar value of that performed work. As an example, assume $10,000 of work was planned to-date, $8,000 was reported as being performed (earned), at an actual cost of $9,000. This work would be reported as being $2,000 behind schedule [a negative or unfavorable SV: $8,000–$10,000 = ($2,000)] and has cost $1,000 more [a negative or unfavorable CV: $8,000–$9,000 = ($1,000)] than was planned for completing that work scope. Likewise, a favorable or positive CV would be reported if it cost less to complete the work than the performed dollar value of the work. The SV and CV are reported for each monthly period, fiscal-year-to-date, as well as for the contract-to-date value. The monthly variances can fluctuate significantly (for reasons noted earlier), so the fiscal year or contract-to-date report provides a better indicator of the overall project completion status and can give a reasonable projection of how the project will finish, based on the progress-to-date.

Earned Value Data: Fiscal Year 2023 March-2023

Tank Farms ORP-0014
WBS 5 - River Protection Project

EVMS Monthly and Fiscal Year Values



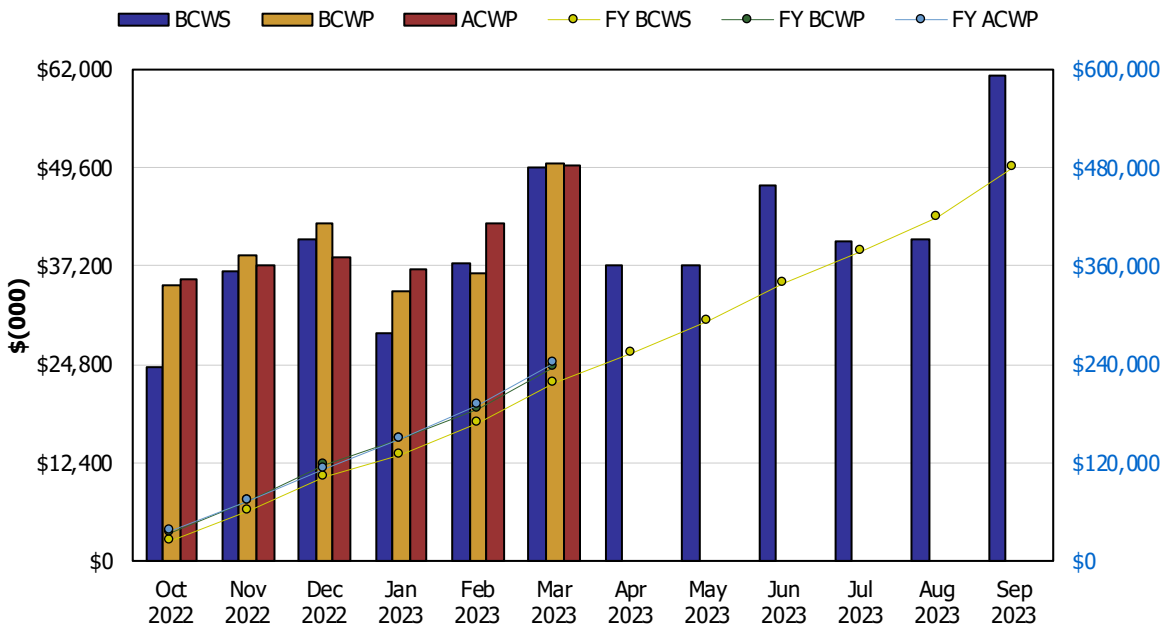
Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2022	$35,238	$47,661	$47,420	1.35	1.01	$35,238	$47,661	$47,420	1.35	1.01
Nov 2022	$51,929	$56,301	$50,081	1.08	1.12	$87,166	$103,963	$97,501	1.19	1.07
Dec 2022	$57,071	$61,277	$54,547	1.07	1.12	$144,237	$165,240	$152,049	1.15	1.09
Jan 2023	$42,617	$45,795	$48,828	1.07	0.94	$186,854	$211,034	$200,877	1.13	1.05
Feb 2023	$53,826	$50,450	$55,802	0.94	0.90	$240,680	$261,484	$256,678	1.09	1.02
Mar 2023	$70,206	$68,973	$66,674	0.98	1.03	$310,886	$330,457	$323,352	1.06	1.02
Apr 2023	$58,524					$369,410				
May 2023	$56,808					$426,218				
Jun 2023	$71,929					$498,147				
Jul 2023	$60,050					$558,198				
Aug 2023	$64,266					$622,464				
Sep 2023	$118,832					$741,296				

CTD	$7,976,036	$7,950,188	$7,859,055	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.
CM = current month.
CTD = contract to date.
FY = fiscal year.
SPI = schedule performance index.

Earned Value Data: Fiscal Year 2023 March-2023

Tank Farms ORP-0014
WBS 5.1 - Base Operations



Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2022	$24,399	$34,783	$35,610	1.43	0.98	$24,399	$34,783	$35,610	1.43	0.98
Nov 2022	$36,543	$38,599	$37,330	1.06	1.03	$60,942	$73,382	$72,940	1.20	1.01
Dec 2022	$40,452	$42,680	$38,399	1.06	1.11	$101,394	$116,062	$111,338	1.14	1.04
Jan 2023	$28,754	$34,015	$36,771	1.18	0.93	$130,148	$150,076	$148,109	1.15	1.01
Feb 2023	$37,567	$36,219	$42,522	0.96	0.85	$167,715	$186,295	$190,631	1.11	0.98
Mar 2023	$49,531	$50,248	$49,956	1.01	1.01	$217,246	$236,543	$240,587	1.09	0.98
Apr 2023	$37,180					$254,426				
May 2023	$37,193					$291,619				
Jun 2023	$47,256					$338,875				
Jul 2023	$40,340					$379,215				
Aug 2023	$40,613					$419,828				
Sep 2023	$61,189					$481,017				

CTD	$5,329,514	$5,306,601	$5,247,050	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.
CM = current month.
CTD = contract to date.
FY = fiscal year.
SPI = schedule performance index.

***Tank Farms Assistant Manager*:** Delmar Noyes
***Technical Lead*:** Ricky Bang

5.01 – Base Operations

The March 2023 variances below do not impact TPA milestones.

The current month **favorable** SV of $717,900 was due in part to:

- ETF Load-in expansion schedule recovery based on completion of installation activities and the start of construction acceptance testing
- ETF Brine Storage Tanks schedule recovery due to receiving the ACN Storage Tanks and installing the Tote Loading Station.

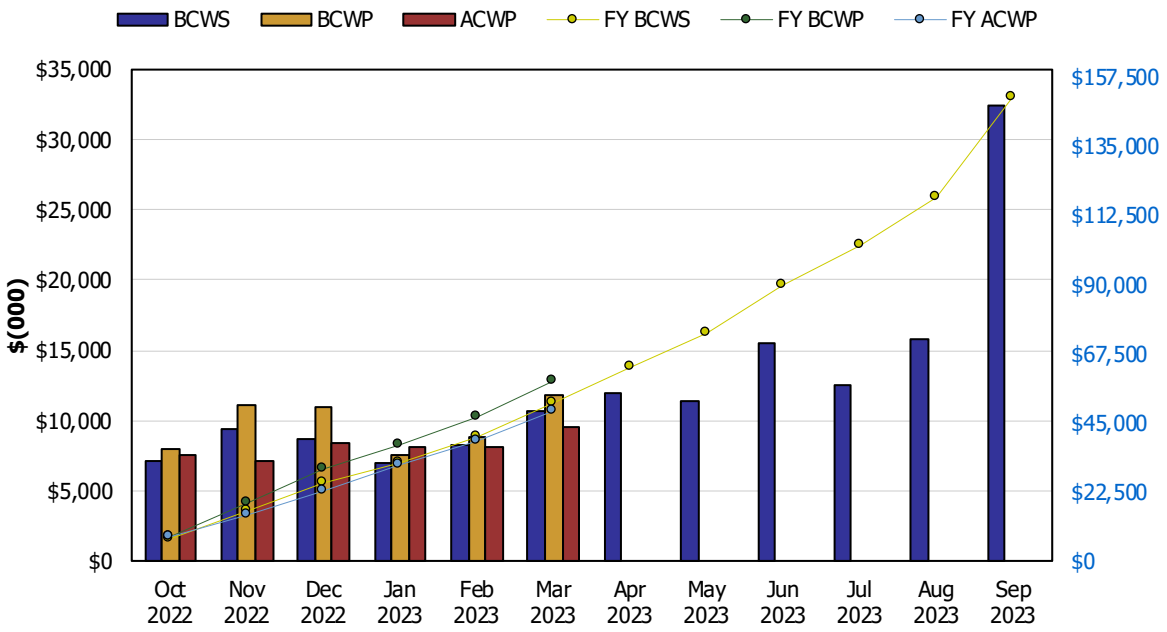
The current month **favorable** CV of $291,600 was due in part to:

- Labor efficiencies.

Earned Value Data: Fiscal Year 2023 March-2023

Tank Farms ORP-0014
WBS 5.2 - Retrieve and Close SSTs

EVMS Monthly and Fiscal Year Values



Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2022	$7,181	$8,004	$7,595	1.11	1.05	$7,181	$8,004	$7,595	1.11	1.05
Nov 2022	$9,376	$11,134	$7,153	1.19	1.56	$16,557	$19,138	$14,748	1.16	1.30
Dec 2022	$8,660	$11,007	$8,340	1.27	1.32	$25,217	$30,146	$23,087	1.20	1.31
Jan 2023	$6,992	$7,558	$8,160	1.08	0.93	$32,209	$37,704	$31,247	1.17	1.21
Feb 2023	$8,255	$8,845	$8,082	1.07	1.09	$40,464	$46,549	$39,330	1.15	1.18
Mar 2023	$10,667	$11,850	$9,474	1.11	1.25	$51,130	$58,399	$48,803	1.14	1.20
Apr 2023	$12,020					$63,150				
May 2023	$11,325					$74,475				
Jun 2023	$15,462					$89,938				
Jul 2023	$12,501					$102,439				
Aug 2023	$15,807					$118,246				
Sep 2023	$32,456					$150,702				

CTD	$1,493,191	$1,502,471	$1,524,699	1.01	0.99

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CM = current month.
CTD = contract to date.
FY = fiscal year.
SPI = schedule performance index.

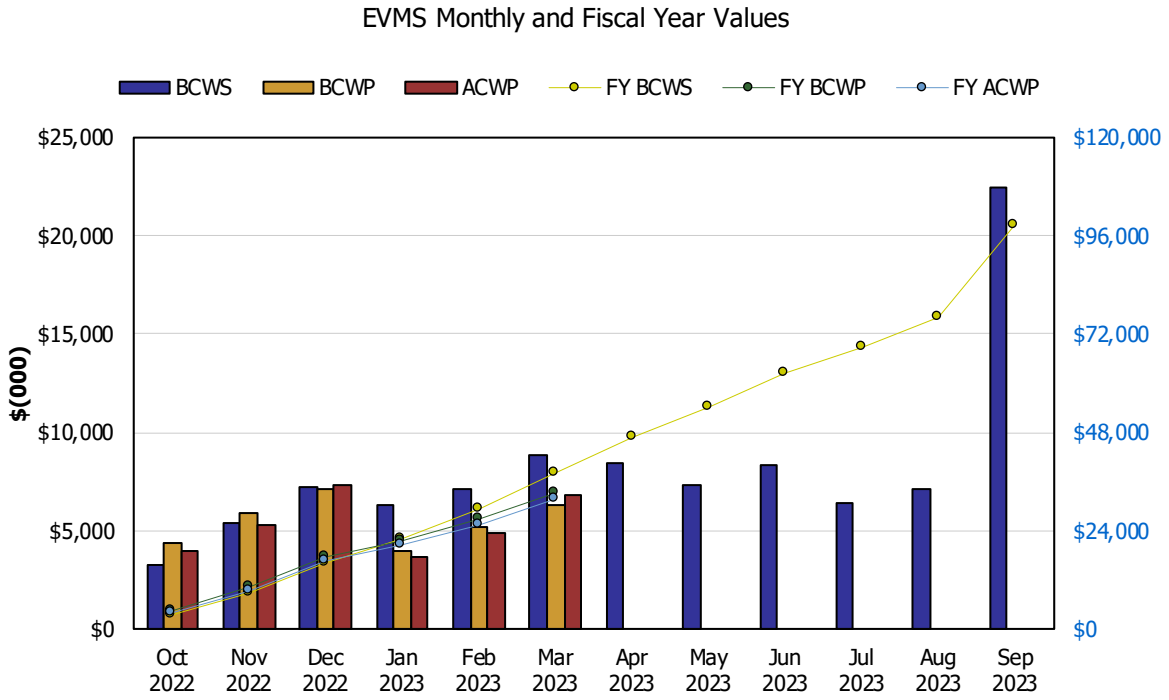
***Tank Farms Assistant Manager*:** Delmar Noyes
Technical Lead: Becky Blackwell
Jim Greene

5.02 – Retrieve and Close Single-Shell Tanks

For the retrieval portion, see the Consent Decree monthly report for cost and schedule status.

Earned Value Data: Fiscal Year 2023 March-2023

Tank Farms ORP-0014
WBS 5.3 - WFD/Treatment Plng/DST Retrieval/Closure



Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2022	$3,229	$4,419	$4,002	1.37	1.10	$3,229	$4,419	$4,002	1.37	1.10
Nov 2022	$5,410	$5,949	$5,279	1.10	1.13	$8,639	$10,368	$9,280	1.20	1.12
Dec 2022	$7,269	$7,126	$7,356	0.98	0.97	$15,908	$17,494	$16,637	1.10	1.05
Jan 2023	$6,275	$3,992	$3,682	0.64	1.08	$22,184	$21,487	$20,319	0.97	1.06
Feb 2023	$7,155	$5,140	$4,876	0.72	1.05	$29,339	$26,626	$25,195	0.91	1.06
Mar 2023	$8,880	$6,335	$6,773	0.71	0.94	$38,219	$32,961	$31,968	0.86	1.03
Apr 2023	$8,452					$46,671				
May 2023	$7,353					$54,024				
Jun 2023	$8,331					$62,355				
Jul 2023	$6,453					$68,808				
Aug 2023	$7,164					$75,972				
Sep 2023	$22,476					$98,448				

CTD	$850,980	$840,556	$778,273	0.99	1.08

ACWP	=	actual cost of work performed.	CM	=	current month.
BCWP	=	budgeted cost of work performed.	CTD	=	contract to date.
BCWS	=	budgeted cost of work scheduled.	FY	=	fiscal year.
CPI	=	cost performance index.	SPI	=	schedule performance index.

***Tank Farms Assistant Manager*:** Delmar Noyes
***Federal Program Manager*:** Paul Schroder

5.03 – Waste Feed Delivery/Treatment

The March 2023 variances below do not impact TPA milestones.

The current month **unfavorable** SV of ($2,545,300) was due in part to:

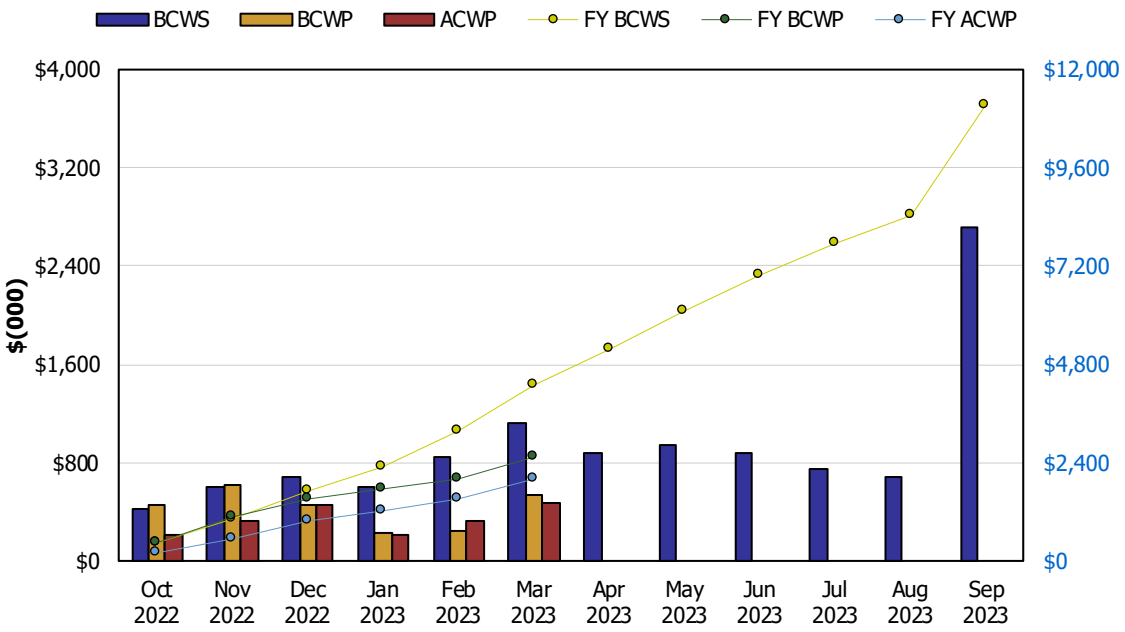
- WTP Transition Support delays for the agitator impeller assemblies.

The current month **unfavorable** CV of ($438,200) was due in part to:

- WTP Transition Support LAW bubbler material cost increases
- WTP Transition Support Low-Activity Waste Melter Assembly, Storage and Transportation labor and materials cost increases.

Earned Value Data: Fiscal Year 2023 March-2023

Tank Farms ORP-0014
WBS 5.5 - Treat Waste



Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2022	$429	$456	$214	1.06	2.13	$429	$456	$214	1.06	2.13
Nov 2022	$600	$619	$320	1.03	1.94	$1,028	$1,075	$534	1.05	2.01
Dec 2022	$690	$464	$452	0.67	1.03	$1,718	$1,538	$986	0.90	1.56
Jan 2023	$595	$229	$216	0.39	1.06	$2,313	$1,768	$1,202	0.76	1.47
Feb 2023	$849	$247	$321	0.29	0.77	$3,162	$2,014	$1,522	0.64	1.32
Mar 2023	$1,129	$540	$467	0.48	1.16	$4,291	$2,554	$1,989	0.60	1.28
Apr 2023	$872					$5,163				
May 2023	$937					$6,100				
Jun 2023	$880					$6,980				
Jul 2023	$757					$7,737				
Aug 2023	$682					$8,419				
Sep 2023	$2,710					$11,129				

CTD	$278,641	$276,850	$287,415	0.99	0.96

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CM = current month.
CTD = contract to date.
FY = fiscal year.
SPI = schedule performance index.

***Tank Farms Assistant Manager*:** Delmar Noyes
***Federal Program Manager*:** Paul Schroder

5.05 – Treat Waste

The March 2023 variances below do not impact TPA milestones.

The current month **unfavorable** SV of ($588,582) was due in part to:

- Procurement delays supporting Advanced Modular Pretreatment System (AMPS) conceptual design.

The current month **favorable** CV of $73,241 was below reportable thresholds.

Table 1 Administrative Record Metadata

Milestone Number or Facility Identification	Title
M-042-10	Complete Leak Test/Internal Inspections, or Other Tank Integrity Examination of DST Components
M-045-00	Complete Closure of All SST Farms
M-045-15	Completion of Tank A-103 SST Waste Retrieval
M-045-15A	Submit a Retrieval Data Report Pursuant to Agreement Appendix I
M-045-15D	Exception to Waste Retrieval Criteria Pursuant to Agreement Appendix H
M-045-56S	Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July 2023)
M-045-56T	Ecology and DOE Agree, at a Minimum, to Meet Yearly (by July 2024)
M-045-58	Submit a Phase 2 Master Work Plan
M-045-59	Control Surface Water Infiltration Pathways as Needed
M-045-62	Submit the Draft Tier 3 Closure Plan with Corrective Measures in Phase 2 CMIP for WMA-C
M-045-70	Complete Waste Retrieval from all Remaining Single Shell Tanks
M-045-82	Submit to Ecology for Review a Draft Tier 2 Closure Plan for WMA C
M-045-83	Complete the Closure of WMA-C by Completing Closure Activities Specified in the Tier 2 Closure Plan
M-045-85	Initiate Negotiations of HFFACO Interim Milestones for Closure of Remaining WMAs
M-045-86	Submit Retrieval Data Report (RDR) to Ecology for 19 Tanks Retrieved Under Consent Decree
M-045-86L	Submit Retrieval Data Report (RDR) to Ecology for Tank AX-104
M-045-86M	Submit Retrieval Data Report (RDR) to Ecology for Tank AX-103
M-045-91K	Complete Initial Baseline Visual Inspections of All SSTs
M-045-91E5	Provide SST Farms Dome Deflection Surveys Every 2 Years to Ecology
M-045-92	Complete Installation of 4 Additional Interim Barriers
M-045-92AB	Complete Construction of Barrier 4 in 241-U Farm
M-045-92AG	Submit Yearly Reports Summarizing the Results of Maintenance and Performance Monitoring Activities

Milestone Number or Facility Identification	Title
M-045-97	Submit to Ecology a WMA Integration Study for WMA A/AX as a Primary Document
M-047-00	Completion of Work for Management of Secondary Waste from the WTP
M-062-00	Complete Pretreatment Processing and Vitrification of HLW & LAW Tank Wastes
M-062-01AU	Submit Semi-Annual Project Compliance Report to Ecology
M-062-01AV	Submit Semi-Annual Project Compliance Report to Ecology
M-062-01AW	Submit Semi-Annual Project Compliance Report to Ecology
M-062-21	Annually Submit Data Which Demonstrates Operation of WTP at a Rate Sufficient to Meet M-062-00
M-062-21A	Annually Submit Data Which Demonstrates Operation of WTP at a Rate Sufficient to Meet M-062-00
M-062-31-T01	Complete Final Design & Submit RCRA Part B Permit Mod Request for Enhanced WTP & Supplemental Treatment
M-062-32-T01	Start Construction of Supplemental Vitrification Facility and/or WTP Enhancements
M-062-33-T01	Complete Construction of Supplemental Treatment Vitrification Facility and/or WTP Enhancements
M-062-34-T01	Complete Hot Commissioning of Supplemental Treatment Vitrification Facility and/or WTP Enhancements
M-062-40J	Submit System Plan to Ecology
M-062-45	Complete Negotiations 6-Months After Last Issuance of System Plan
M-062-45-A	Complete Negotiations 6-Months After Last Issuance of System Plan
M-062-45-T01	Complete Negotiations 6-Months After Last Issuance of System Plan
M-062-45-XX	Complete Negotiations to Resolve Future Disputes M-062-45 Paragraphs 4 & 5
M-062-45-ZZ	Negotiate a One-Time Supplemental Treatment Selection
M-062-45-ZZ-A	Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones
M-062-51	Achieve Substantial Completion of LERF/ETF Construction Upgrades Necessary for LAW Hot Commissioning
M-062-52	Achieve Substantial Completion of Secondary Waste Construction Necessary for LAW Hot Commissioning
M-062-53	Effluent Management Facility (EMF) Cold Commissioning Start
M-062-56	Submit Permit Application for Design and Construction of the LAWP Capability

Milestone Number or Facility Identification	Title
M-090-00	Acquire/Modify Facilities for Storage of First Two Years of IHLW from WTP Operations
S-2-3	Double-Shell Tank System (DST)
S-2-4	Single-Shell Tank System (SST)
S-2-8	Liquid Effluent Retention Facility (LERF)
T-2-6	242-A Evaporator
T-2-8	Effluent Treatment Facility (ETF)
TS-2-1	222-S Laboratory Treatment Tanks and Storage Building
TS-2-8	Low-Activity Waste Pretreatment System (LAWPS)
WMA A/AX	Waste Management Area A/AX

CMIP = Corrective Measures Implementation Work Plan.
DOE = U.S. Department of Energy.
DST = double-shell tank.
Ecology = Washington State Department of Ecology.
ETF = Effluent Treatment Facility.
HFFACO = *Hanford Federal Facility Agreement and Consent Order*.
IHLW = immobilized high-level waste.
LERF = Liquid Effluent Retention Facility.
LAW = low-activity waste.
LAWP = Low-Activity Waste Pretreatment.
Mod = modification.
RCRA = *Resource Conservation and Recovery Act*.
SST = single-shell tank.
WMA = waste management area.
WTP = Waste Treatment and Immobilization Plant.