

# 100 & 300 AREA UNIT MANAGERS MEETING (UMM) JULY 16, 2020

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy  
under Contract DE-AC06-08RL14788

**CH2MHILL**  
Plateau Remediation Company

**P.O. Box 1600  
Richland, Washington 99352**



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Date Published  
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P.O. Box 1600  
Richland, Washington 99352

**APPROVED**  
*By Lynn M. Ayers at 12:43 pm, Sep 10, 2020*

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Release Approval

Date

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**100 & 300 AREA UNIT MANAGERS MEETING**  
**July 16, 2020**

**FINAL MEETING MINUTES**

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Meeting Attendees  
Administrative Record  
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**100/300 AREA UNIT MANAGERS MEETING  
Attachments List  
July 16, 2020**

**Minutes of the 100/300 Area Unit Managers Meeting of July 16, 2020 are attached.  
Minutes are comprised of the following:**

<b>Attachment 1</b>	<b>Agenda</b>
<b>Attachment 2</b>	<b>Attendees Sign-In Sheets</b>
<b>Attachment 3</b>	<b>Signature Approval Page</b>
<b>Attachment 4</b>	<b>100K Area Report</b>
<b>Attachment 5</b>	<b>300 Area Report</b>
<b>Attachment 6</b>	<b>Groundwater Summary by O.U.</b>
<b>Attachment 7</b>	<b>Documents to the AR, Approved TPA CNs</b>
<b>Attachment 8</b>	<b>100-OL-1 Orchard Lands</b>
<b>Attachment 9</b>	<b>Action Items</b>

**100/300 AREA UNIT MANAGERS MEETING  
AGENDA  
July 16, 2019**

**100 Area River Corridor Soils and Sludge & K Basin Summary** (Deborah Singleton/R. Quintero)

**300 Area River Corridor Soils Summary** (Lorna Dittmer/B. Vannah)

**Groundwater Summary by O.U.**

- 100-K Area Groundwater (Ellwood Glossbrenner)
- 100-BC Area Groundwater (Ellwood Glossbrenner)
- 100-N Area Groundwater (Steve Balone)
- 100-D/H Areas Groundwater (John Sands)
- 100-F Area Groundwater (Steve Balone)
- 300 Area Groundwater (John Sands)
- Summary of Hanford Sampling Program
- Documents for the Administrative Record and Approved TPA Change Notices

**100-OL-1 – Orchard Lands** (Johns Sands)

**Action Items**

**Closing Comments**

- Sign concurrence to “Groundwater Summary by O.U.” and “Action Item List” if applicable

**100/300 Area Unit Managers Status Meeting  
July 16, 2020  
Joined via Microsoft Teams**

<b>PRINTED NAME</b>	<b>ORGANIZATION</b>	<b>O.U. ROLE</b>	<b>TELEPHONE</b>
Brian Johnson	ECY		372-7908
Theresa Bergman	CHPRC		376-1669
Randal Fox	CHPRC		373-6024
Mark French	DOE		373-9863
Andy Wiborg	DOE		376-9238
Greg Phillips	DOE		372-0100
Scott Davis	MSA	TPA	376-8757
Deborah Singleton	CHPRC		373-7689
Laura O'Mara	CHPRC	Admin	373-9763
Dib Goswami	ECY		372-7902
Stephanie Brasher	MSA	TPA	373-6230
Kelly Ebert	DOE		376-7756
Shelley Cimon	ODOE		541-240-0161
Ellwood Glossbrenner	DOE		376-5828
Ben Vannah	DOE		376-9623
Crystal Mathey	DOH		943-5216
Alicia Boyd	ECY		372-7934
Bill Faught	CHPRC		376-3139
Brian Stetter	DOE		376-3535
John Sands	DOE		372-2282
Steve Balone	DOE		376-0236
Laura Buelow	EPA		376-5466
Julie Johanson	CHPRC		373-6031
Manny Lopez-Lopez	DOE		376-7062
Matt St Germaine	CHPRC		376-8068
Greg Berlin	MSA		373-7665
Garrett Day	ECY		
Kathy Higgins	DOE		376-3658
Kim Welsch	ECY		372-7882
Lynne Hood	EPA		376-8631
Marissa Merker	NEZPERCE		

**100/300 Area Unit Managers Meeting  
Meeting Minutes Approval  
July 16, 2020**

APPROVAL: Mark S. French Digitally signed by Mark S. French  
Date: 2020.07.30 15:18:36 -07'00' DATE: \_\_\_\_\_  
**River Corridor Project Manager, DOE/RL**

APPROVAL: Michael W. Cline Digitally signed by Michael W.  
Cline  
Date: 2020.07.16 16:18:05 -07'00' DATE: \_\_\_\_\_  
**Groundwater Project Manager, DOE/RL**

APPROVAL:  Digitally signed by Welsch, Kim  
(ECY)  
Date: 2020.08.03 07:27:27 -07'00' DATE: \_\_\_\_\_  
**Environmental Restoration Acting Project Manager, Ecology**

APPROVAL: Buelow, Laura Digitally signed by Buelow, Laura  
Date: 2020.08.05 13:24:14 -07'00' DATE: \_\_\_\_\_  
**100 Area Project Manager, EPA**

HFFACO Action Plan Section 4.1 requires signature of agreements and commitments made during the Project Manager Meeting. Approval of these minutes documents agreements and commitments identified in the attached "Groundwater Summary by O.U." and the "Action Item List". Approval does not apply to the minutes themselves or to any other attachments.

**100K Area Report**  
**100/300 Area Unit Manager Meeting**  
**July 16, 2020**

**RL-0041 100K Closure Project** – (Manny Lopez-Lopez, Deborah Singleton)

**NOTE: Field work was suspended 3/17/2020 due to COVID-19. Soil remediation restarted on 7/7/2020, but other 100K Closure activities are still suspended as of 7/8/2020.**

**TPA Milestone M-016-143**, *Complete the interim response actions for 100 K Area within the perimeter boundary and to the Columbia River for Phase 2 actions. Phase 2 is defined in the 100 K Area RD/RA Work Plans.*

- (9/30/24) – At Risk – Dates will be evaluated after contract transition.

Soil Remediation and Waste Site Closure:

- Overburden removal started at 100-K-60 on 7/7/2020.
- Upcoming activities include:
  - 116-KE-2 - Radiological downposting to allow for survey crews to complete a topographic survey in support of a sample design and eventual verification samples.
  - 100-K-47:1 – Remediation activities are expected to restart week of 7/15/2020.

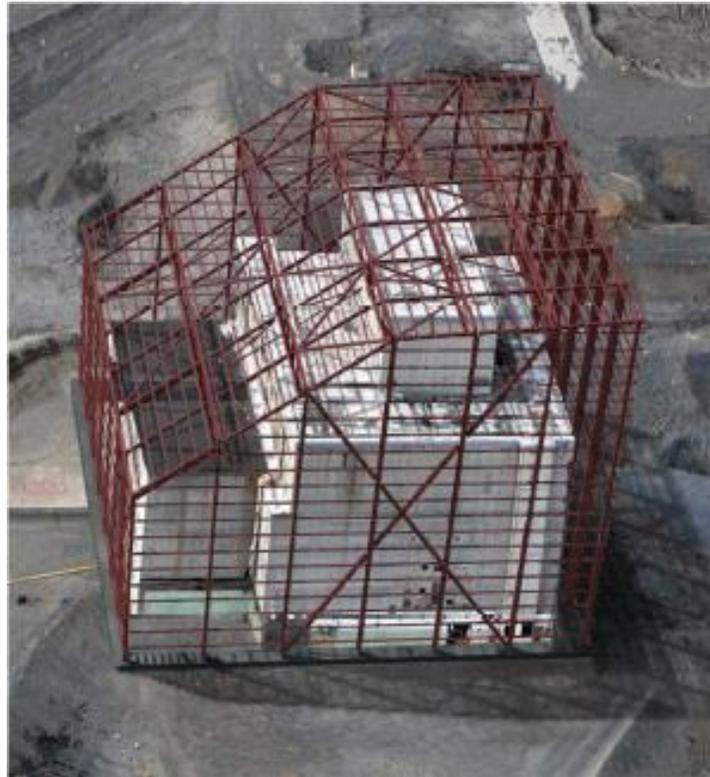
Ancillary Facility Deactivation and Demolition (D&D):

- Completed demolition preparations for 165KE
- Contined demolition of the 166KE Fuel Storage Bunker
  - West day tank demolition is complete
  - West bulk Storage tank demolition is complete
  - East day tank demolition is expected to restart in late July
  - East bulk storage tank is expected to restart in late July



*166KE demolition underway*  
*(165KE Power Control Building in Background)*

**100K Area Report**  
**100/300 Area Unit Manager Meeting**  
**July 16, 2020**



*105-K East Reactor Interim Safe Storage (ISS)*



*Conceptual Design of the 105-K East Safe Storage Enclosure*

- The request for proposal for SSE Construction was issued. A pre-bid walkdown was held on June 18<sup>th</sup>, and bids are expected by the end of July.

**100K Area Report**  
**100/300 Area Unit Manager Meeting**  
**July 16, 2020**

**TPA Milestone M-093-27**, *Complete 105-KE and 105-KW Reactor Interim Safe Storage in Accordance with the Removal Action Work Plan.*

- **(9/30/24)** - At Risk – TPA Change package M-93-20-02 was approved 6/10/2020 and adds three target dates – milestone completion date will be evaluated after contract transition.

**TPA Target Date M-093-27-T01**, *Initiate earthwork for construction of the 105-KE Safe Storage Enclosure.*

- **(9/30/2021)** – On Schedule - This target date will be satisfied by initiating the earthwork in support of the 105KE Reactor Safe Storage Enclosure construction. Earthwork includes excavating and stockpiling clean soil or packaging contaminated soil from existing terrain around the 105KE Reactor Building to prepare the area for installation of the engineered fill pad.

**TPA Target Date M-093-27-T02**, *Complete preparation of the 105-KW Reactor Building for Interim Safe Storage by removing liquids and accessible hazardous and controlled materials in accordance with the Removal Action Work Plan.*

- **(DATE – TBD)** - This target date will be satisfied by removing liquids and accessible hazardous and controlled materials from the deactivated and decommissioned portions of the 105KW Reactor Building. Asbestos that is deemed stable and outside the Surveillance and Maintenance tour path, primarily at heights or asbestos cement wall/ceiling panels, will remain in place during the interim safe storage period.

**TPA Target Date M-093-27-T03**, *Initiate earthwork for construction of the 105-KW Safe Storage Enclosure.*

- **(DATE – TBD)** - This target date will be satisfied by initiating the earthwork in support of the 105KW Reactor Safe Storage Enclosure construction. Earthwork includes excavating and preparing the area around the 105KW Reactor Building for installation of the engineered fill pad.

**TPA Milestone M-016-00C**, *Complete all response actions for the 100 K Area*  
**(9/30/24)** - At Risk – Date will be evaluated after contract transition.

**TPA Milestone M-016-181**, *complete deactivation, demolition and removal of 105-KW Fuel Storage Basin*

- **(9/30/23)** – At Risk – Date will be evaluated after contract transition.
- DOE/RL-2010-52, *Remedial Design and Remedial Action Work Plan for the K Basins Interim Remedial Action: 105-K West Basin Deactivation* (Revision 1), and DD-63014, *105-KW Basin Deactivation Air Monitoring Plan* are being resubmitted to DOE & EPA for approval.
- Basin deactivation work is delayed due to COVID-19. Planning and preparation activities continue to support restart of work. These activities include the following:
  - Preparations for Garnet Filter Media Retrieval (GFMR) Operations Acceptance Testing and Readiness Review.
  - Preparations to remove equipment to clear the footprint in the K West Basin West Bay for installation of the Vertical Pipe Casings (VPC).
  - Planning and preparations for final inventorying and dose rating remaining below-water debris.
  - Preparations to perform bulk removal of hanging pole tools. (West Bay).

**100K Area Report**  
**100/300 Area Unit Manager Meeting**  
**July 16, 2020**

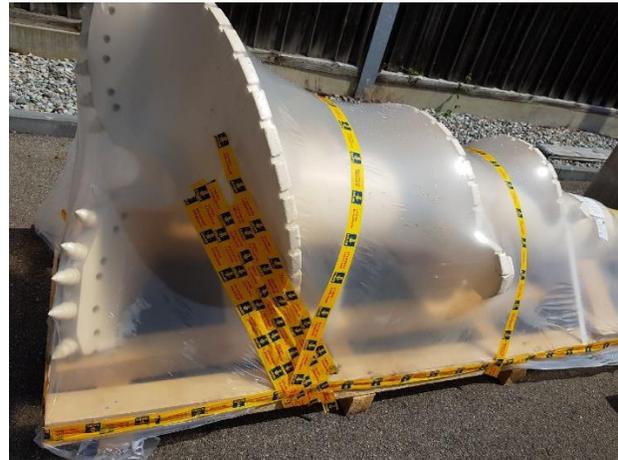
- Preparations for size reducing and sampling terminated material.
- Preparations to inspect and characterize the Integrated Water Treatment System settler tanks.
- Preparations to sample the Skimmer System sand filter media.
- Planning in support systems deactivation, grouting, and dewatering in the basin.
- Completed fabrication on a number of key Vertical Pipe Casing components to support segregation of debris in the 105KW Basin.



*Testing of the Hydraulic Power Units and Tipping assembly*

**100K Area Report**  
**100/300 Area Unit Manager Meeting**  
**July 16, 2020**

- Equipment and Mockup to support VPC Auger Testing in Conroe, Texas are nearing completion and will be ready to support testing once travel restrictions are lifted.



*Auger bit fabrication has completed and the tool is ready to ship!*



*Vertical Pipe Casing Ready for Testing Activities!*

**TPA Milestone M-016-186, Initiate soil remediation under the 105-KW Fuel Storage Basin.**

- (12/31/23) – At Risk. – Date will be evaluated after contract transition.

**300 Area River Corridor Soils Summary  
100/300 Area Unit Manager Meeting  
July 16, 2020**

**300 Area ROD Scope** – (Ben Vannah)

**TPA Milestone M-016-85A**, *Complete remote excavation of the 300-296 waste site in accordance with an approved RD/RA Work Plan, (9/30/2021)* – On Schedule

Performing the following activities in preparation for remote excavation of the highly contaminated soil beneath the 324 Building B-Cell, and grout in place in the adjacent hot cells (A, C, D) for disposal.

**324 Building Equipment Installation:**

- N/A

**Equipment Procurement & Fabrication:**

- Continued design and fabrication of equipment:
  - B-Cell 10T Crane (approved, shipment on hold)
  - Universal cutting tool
  - Cell dams
  - Water delivery system for the Airlock
  - Concrete box for soil waste bins
  - Modified shielded lids and frames
  - Self-leveling lifting device
  - Modified Airlock Rail (on hold)

**324 Activities:**

- Conducting daily rounds during Hanford Site Mission Critical Shutdown
- Develop a back to work plan for phasing worker's return to the project
- Evaluate and establish socially distanced work spaces for employees
- Awarded contract for radiological tolerance testing of acrylamide Pacific Northwest National Laboratory

**Structural Modifications:**

- N/A

**Mockup:**

- N/A

**Cell Cleanout:**

- N/A

**Resumption Activities:**

- The Root Cause Evaluation was approved in late March
- The associated Corrective Action Plan (CAP) in CRRS was approved the first week of April
- Corrective actions ongoing (13 of 23 Prestart Actions completed to date):
  - Development and implementation of advanced radiological training specific to 324 radiological conditions, including simulated hands-on practical demonstrations, is on hold awaiting return of project personnel

**300 Area River Corridor Soils Summary  
100/300 Area Unit Manager Meeting  
July 16, 2020**

- Modification of the 324 Mockup facility for use in hands-on advanced radiological training is currently on hold awaiting return of project personnel
- Completed revisions to project baseline documents to reflect more rigorous controls and institution of a formal change control process

**Upcoming Activities:**

- Phasing the return to work and training of the 324 Building Disposition Project staff

**TPA Milestone M-016-85, Complete Remedial Actions for 300-296 and Disposition for 324 Bldg. and Ancillary Bldgs. (9/30/2025) – On Schedule**

Milestone Description: *Complete remedial actions for 300-296 waste site in accordance with RD/RA Work Plan for 300-FF-2 Soils (DOE/RL-2014-13-ADD1) and disposition for the 324 Building and Ancillary Buildings in accordance with the Removal Action Work Plan (DOE/RL-2004-77). Completion of facility disposition is defined as the completion of deactivation, decontamination, decommissioning, and demolition in accordance with the removal action work plan.*

### 300 Area River Corridor Soils Summary 100/300 Area Unit Manager Meeting July 16, 2020

300-296 FES Summary Schedule\_Fiscal June Month End

#	Activity Name	Start	Finish	Prior Month Finish VAR	FY2020												FY2021												FY2022												FY2023											
					M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J													
1	<b>300-296 Key Milestones</b>	06-02-20 A	09-29-26	0																																																
2	COVID 19 Phase 1 - Start Return to Work/Remobilization	06-02-20 A																																																		
3	COVID 19 Phase 2a - Start Low Risk Work	07-20-20*																																																		
4	COVID 19 Phase 2b - Start Low Risk Work	07-27-20*																																																		
5	COVID 19 Phase 2c - Start Low Risk Work	08-03-20*																																																		
6	COVID 19 Phase 2d - Start Low Risk Work	08-10-20*																																																		
7	COVID 19 Phase 3a - Start Moderate Risk Work	08-31-20*																																																		
8	Resume General CA/HCA Work_ 11/14/19 Event	09-18-20		-14																																																
9	COVID 19 Phase 3b - Start High Risk Work	09-28-20*																																																		
10	Resume Room 18 Work_ 11/14/19 Event	10-20-20		-18																																																
11	Resume Airlock Work_ 11/14/19 Event	11-10-20		-18																																																
12	Complete Three Test Pilot Holes 2-4, and Grout Two Micro-Pile Holes		12-07-20	0																																																
13	Complete 324 Building REC Cleanout		07-07-21	-16																																																
14	Initiate 324 B Cell Floor Scoring	09-09-21		-16																																																
15	Complete Removal of 324 B Hot Cell Floor		01-03-22	-20																																																
16	TPAM-016-85A Complete remote excavation of the 300-296 waste site (Due 9/30/2021)		01-27-23*	-3																																																
17	TPAM-016-85 Complete Remedial Actions for 300-296 Waste Site		09-29-26	0																																																
18	Project Resumption from 11/14/19 Event	01-21-20 A	11-18-20	-9																																																
19	A/D Crane Recovery	09-11-19 A	09-14-21	-9																																																
20	Mockup Equipment Procurements	05-18-17 A	12-12-18 A	0																																																
21	Mockup Equipment Installation	11-15-17 A	04-23-19 A	0																																																
22	Mockup Training	04-25-18 A	06-30-22	-3																																																
23	Cell Sealing	01-29-18 A	10-26-22	-3																																																
24	Core Drilling	01-09-18 A	03-28-19 A	0																																																
25	Structural Modifications Design - Micropiles	12-27-18 A	11-13-19 A	0																																																
26	Structural Modifications Design	10-11-17 A	05-21-20 A	0																																																
27	Structural Modifications - Temp Shoring	06-27-19 A	09-14-20	-10																																																
28	Structural Modifications - Interference Removal	10-31-17 A	02-09-21	-2																																																
29	Structural Modifications - Micropiles	11-11-19 A	09-28-21	-2																																																
30	Structural Modifications - Soil Stabilization	10-01-19 A	07-11-22	-2																																																
31	Structural Modifications - Scabbling/Dowel Drilling	01-03-22	04-11-22	-2																																																
32	Structural Modifications - Pile Cap	04-12-22	07-11-22	-2																																																
33	REC Cleanout	09-13-17 A	04-20-21	-9																																																
34	Equipment Procurements	09-14-17 A	12-01-21	-9																																																
35	Equipment Installations	07-16-18 A	09-21-22	-3																																																
36	B-Cell Debris Removal	07-02-18 A	08-30-21	-9																																																
37	Readiness Assessment - Phase One	08-30-21	11-03-21	-9																																																
38	B-Cell Floor Scoring	09-09-21	10-20-21	-9																																																
39	B-Cell Floor Removal	11-04-21	01-03-22	-9																																																
40	Readiness Assessment - Phase Two	11-18-21	01-24-22	-9																																																
41	B-Cell Soil Excavation (To the Footers)	01-25-22	04-27-22	-9																																																
42	B-Cell Soil Excavation (Below Footers)	07-12-22	12-12-22	-2																																																

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▲▲ Prior Month  
◆ Milestone  
▼ Summary

No Date on Our Schedule is More Important Than Your SAFETY

**Groundwater Summary by OU (May - June 2020 Data)**  
**100/300 Area Unit Managers Meeting**  
**July 16, 2020**

**100-K Area Groundwater Operable Unit**

*EPA Lead (RL – E. Glossbrenner, CHPRC – E. Feist, J. Hulstrom)*

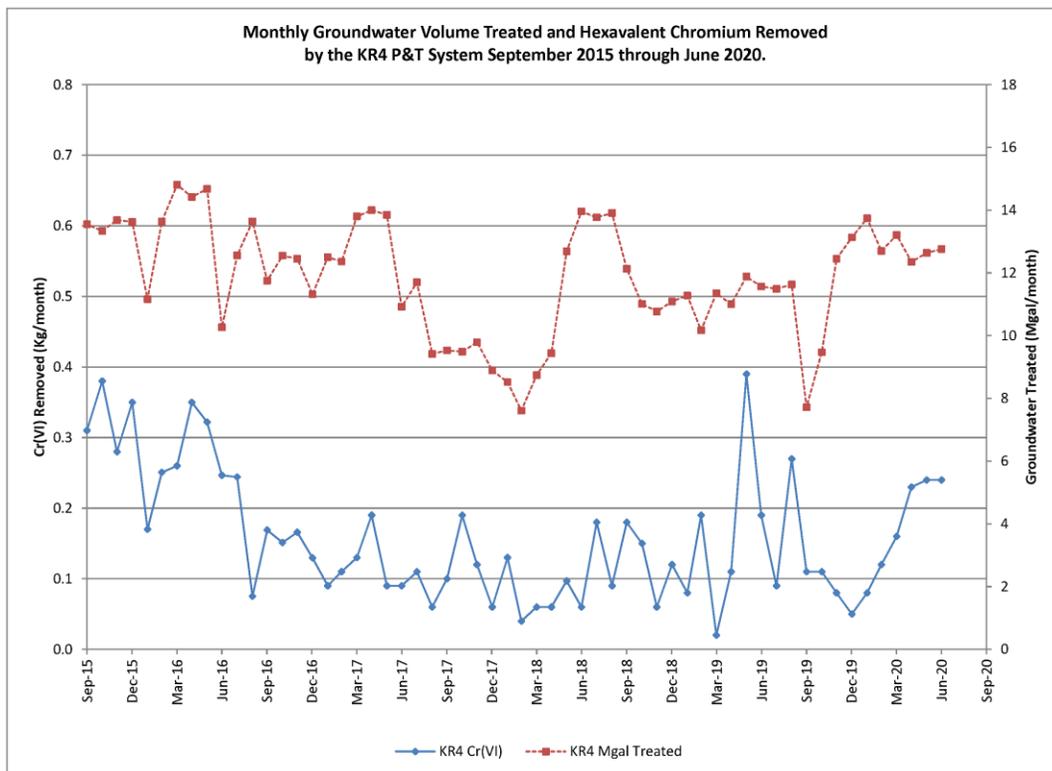
- CERCLA Process Implementation:
  - A teams meeting was held with RL and EPA on May 11, 2020 to discuss the ESD outline for incorporating soil flushing technology as an enhancement to the pump and treat interim action at KR-4. A future meeting is planned with RL, EPA, and Ecology to walk through the ESD outline
  - Teams meetings were held on May 27, 2020 and June 25, 2020 to status RL and EPA on the activities occurring at K Area and the progress on the CERCLA documents being prepared. These were routine K Area meetings.
  - TPA-CN-0891 to DOE/RL-2018-10, KW Soil Flushing SAP was approved by RL and EPA on May 5, 2020. This change notice updated the groundwater sampling associated with future operations of the infiltration gallery.
  - TPA-CN-0892 to DOE/RL-2013-29, 100-KR-4 Groundwater Monitoring SAP was approved by RL and EPA on May 5, 2020. This change notice modified the sampling frequency for existing wells and incorporated newly installed wells.
  - The Treatability Test Report, DOE/RL-2019-77, was provided to RL and EPA for concurrent review on June 1, 2020.
  - Provided DOE/RL-97-01, *Interim Action Waste Management Plan for the 100-KR-4 Operable Unit*, Rev. 7 to EPA for review and comment on June 23, 2020.
  - TPA-CN-0894 to DOE/RL-2013-48, 100-KR-4 Operations and Maintenance Plan was approved by RL and EPA on June 29, 2020. A supporting technical memorandum to file, which was reviewed by RL and EPA, was completed on June 30, 2020 to support this CN. This memo compiled in-process Cr(VI) results for calendar year 2019 to support the reduction of in-process Cr(VI) sampling of the ion exchange vessels.
- Monitoring & Reporting:
  - Due to COVID-19, the 100-KR-4 groundwater sampling events that were scheduled for the May/June time frame were cancelled. This impacted 72 wells and aquifer tubes that were scheduled for routine groundwater monitoring. The next planned events are scheduled for August/September.
- Remedial Actions & System Modifications:
  - On May 30, 2020 a lightning storm caused a small brush fire in the 100 Area which caused the KR-4 and KX P&T systems to be shutdown until power could be restore. The fire also damaged conveyance lines to two KX injection wells, 199-K-143 and 199-K-180. By June 22, 2020 the damaged lines had been repaired and the two wells returned to service.
  - Figures KR-1 through KR-3 present the monthly volume of groundwater treated and mass of hexavalent chromium removed through June 2020.
  - Figure KR-4 illustrates the monthly average pumping rates for operating extraction wells across the 100-KR-4 system. KX extraction wells 199-K-148, 199-K-153, 199-K-161, and 199-K-210 will require well maintenance once field work operations resumes.
  - The volume of groundwater treated and mass of Cr(VI) removed for the 100-K P&T systems (KX, KR-4, and KW) during May and June 2020 are:

<b>Month</b>	<b>Gallons Treated (millions)</b>	<b>Hexavalent Chromium Removed (kg)</b>
May	55	2.7
June	56	2.3

**Groundwater Summary by OU (May - June 2020 Data)  
100/300 Area Unit Managers Meeting  
July 16, 2020**

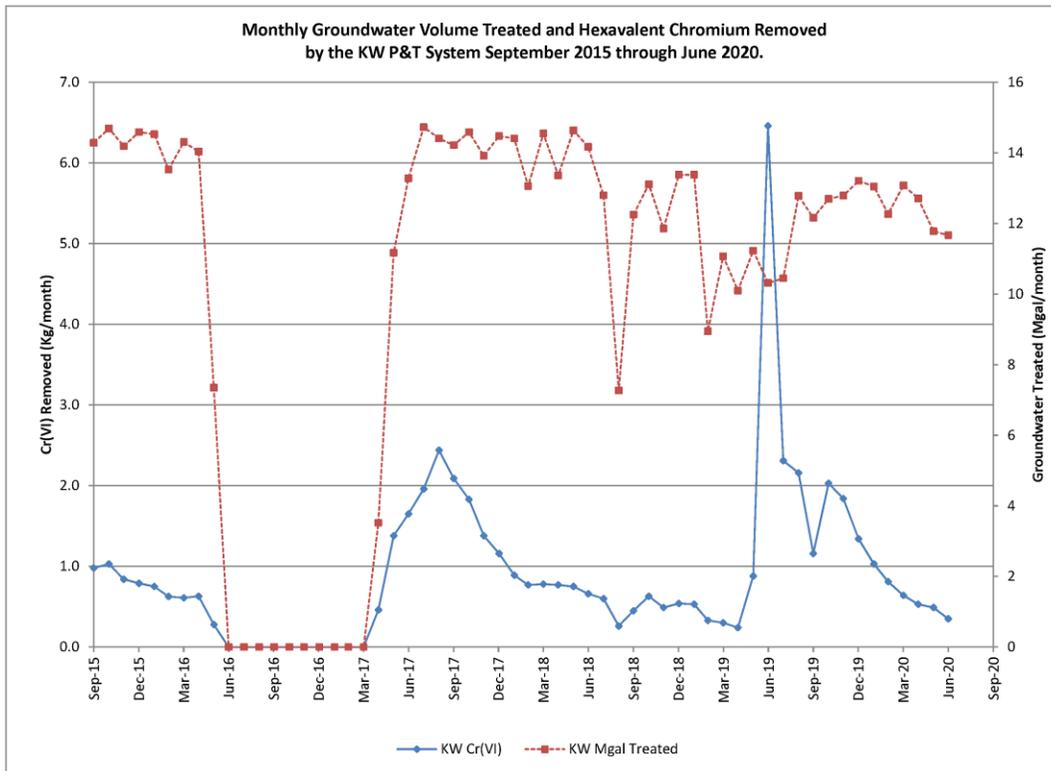
- FY 2020 (October through June 2020) P&T performance to date:

<b>P&amp;T System</b>	<b>Treated (mgal)</b>	<b>Removed (kg)</b>
KR4	112	1.3
KW	113	9.1
KX	324	18
<b>Total</b>	<b>549</b>	<b>29</b>

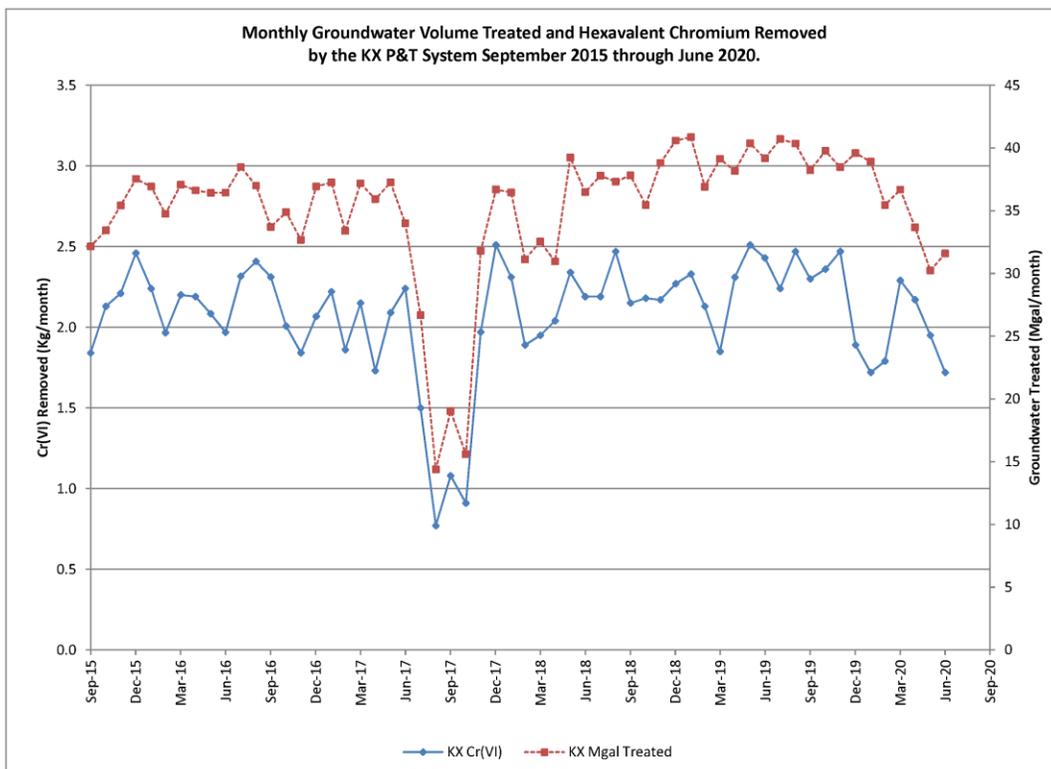


**Figure KR-1. Monthly Cr(VI) Removed and Groundwater Volume Treated by KR4 P&T September 2015 through June 2020**

**Groundwater Summary by OU (May - June 2020 Data)**  
**100/300 Area Unit Managers Meeting**  
**July 16, 2020**

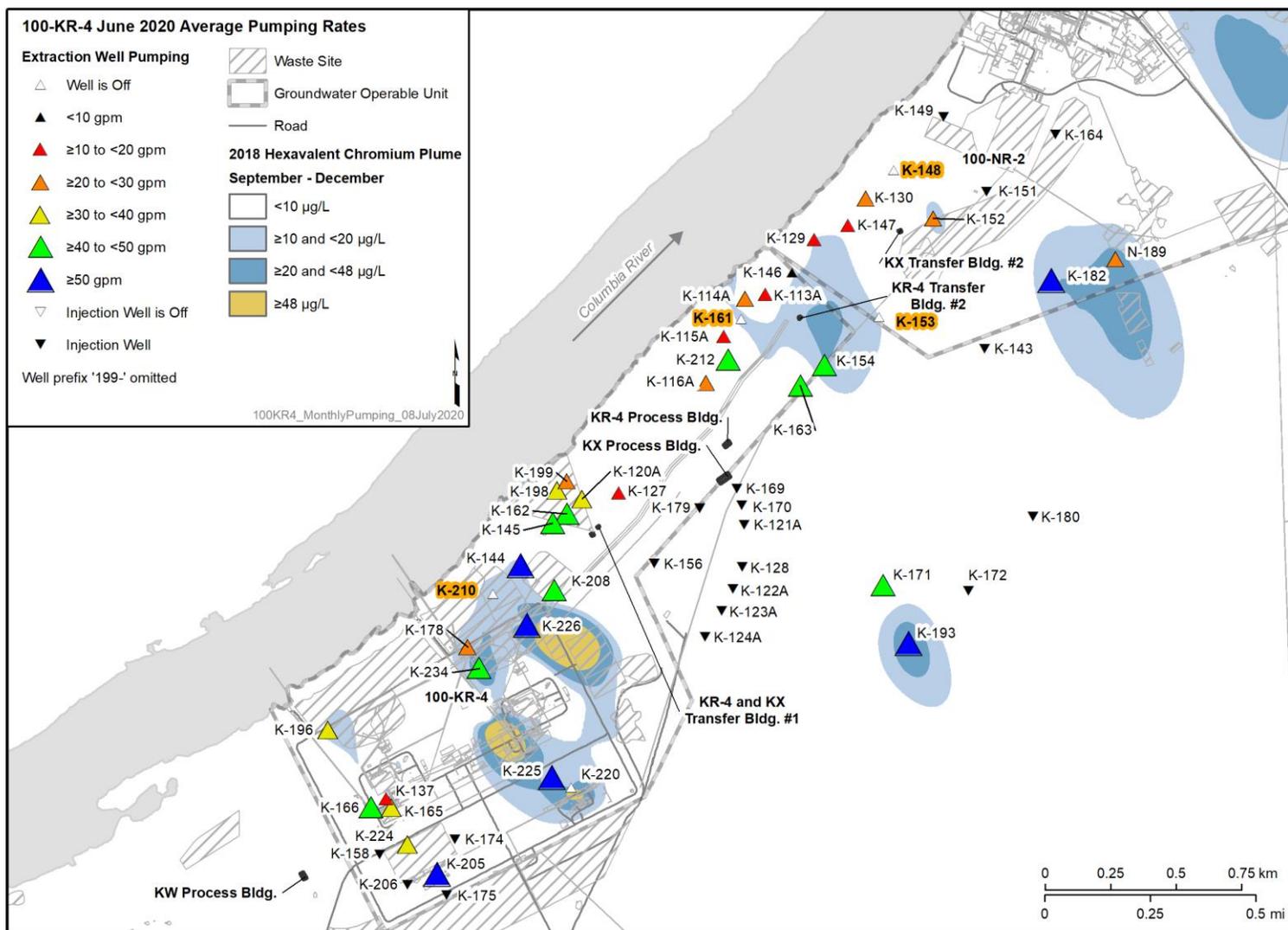


**Figure KR-2. Monthly Cr(VI) Removed and Groundwater Volume Treated by KW P&T September 2015 through June 2020**



**Figure KR-3. Monthly Cr(VI) removed and groundwater volume treated by KX P&T September 2015 through June 2020**

**Groundwater Summary by OU (May - June 2020 Data)**  
**100/300 Area Unit Managers Meeting**  
**July 16, 2020**



**Figure KR-4. June 2020 Average Pumping Rates for the 100-KR-4 P&T System**

**Groundwater Summary by OU (May - June 2020 Data)  
100/300 Area Unit Managers Meeting  
July 16, 2020**

**100-BC Area Groundwater Operable Unit**

*EPA Lead (RL – E. Glossbrenner, CHPRC – R. Evans, M. Hartman)*

- CERCLA Process Implementation:
  - Preparation of the responsiveness summary addressing public comments on the Proposed Plan continues.
- Monitoring & Reporting:
  - Five wells were scheduled for sampling in June, but sampling has been delayed due to COVID work restrictions. June manual water-level measurements were also delayed.

**Regulatory Agency Comments: No Comment**

**100-N Area Operable Unit**

*Ecology Lead (RL – S. Balone, CHPRC – B. Faught, A. Lee)*

- CERCLA Process Implementation
  - TPA CN-0821 is undergoing Ecology review for the 100-NR-2 RD/RAWP (DOE/RL-2001-27) which reflects changes in the PRB injection schedule. A draft of the TPA CN was provided to Ecology on June 28, 2018 revising the schedule for issuance of the 100-N RI/FS and ROD.
  - The Ecology review period for Draft B, 100-N RI/FS Report was extended to July 10, 2020. Ecology provided a partial list of 224 comments on April 6, 2020 to begin the comment resolution phase. RL continues to provide responses to the comments received in the first package. RL received the second and final package of comments from Ecology on July 9, 2020, and is working on comment responses.
  - TPA CN-0887 to the 100-NR-2 RD/RAWP (DOE/RL-2001-27) was provided on March 19, 2020 to Ecology and EPA for review. The TPA CN identifies proposed changes to better align the sample frequencies to the monitoring needs and reflect the four TSD units that were removed from the Hanford Site RCRA permit in 2018. Ecology provided comments on April 13, 2020 and comment have been dispositioned. An updated version of the TPA CN has been prepared to address comments regarding practical quantitation limits and is being reviewed by RL.
- Remedial Actions:
  - A technical memorandum was prepared for the bioremediation and monitoring activities performed at the UPR-100-N-17 waste site in 2018 and 2019 and document the results of the low river respirometry test completed on November 19, 2019. The technical memorandum was issued to RL for review on July 8, 2020.
  - DOE/RL-2019-24, *Sampling and Analysis Plan for Bioventing Confirmation Sampling Boreholes*, was issued on January 22, 2020. RL transmitted the document to Ecology on February 25, 2020. The SAP provides for collection of characterization soil samples to evaluate the effectiveness of the bioventing system for remediating deep vadose zone TPH contamination. Drilling of the boreholes is planned for the first quarter of FY-21 (funding dependent) when the water table is low, exposing more of the deep vadose zone in the periodically rewetted zone.
- Product Recovery:
  - No changeout of the sorbent sponge assemblies in wells 199-N-18 and 199-N-183 have occurred since March due to the COVID-19 fieldwork delay.
- Monitoring and Reporting:
  - The next comprehensive sampling round of the 100-N groundwater monitoring wells and aquifer tubes is scheduled for July 2020.

**Regulatory Agency Comments: No Comment**

**Groundwater Summary by OU (May - June 2020 Data)**  
**100/300 Area Unit Managers Meeting**  
**July 16, 2020**

**100-D/H Areas Groundwater Operable Unit**

*Ecology Lead (RL – J. Sands, CHPRC –R. Evans, T. Hammond)*

- CERCLA Process Implementation:
  - Received Ecology’s final comments on the Draft A Remedial Design/Remedial Action Work Plan (RD/RAWP) on May 13, 2020. A red-line copy of the Draft Rev 0 RD/RAWP was provided to Ecology on June 25, 2020, requesting they review responses to their Draft A comments.
  - Met with EPA and Ecology on June 3, 2020, to discuss Ecology’s concern that the current process for purgewater disposal in the modular storage units (MSU) is not acceptable and most importantly; it is not addressed in the Record of Decision (ROD). EPA and Ecology are particularly concerned that purgewater disposal at the MSU’s is not authorized as “on-site” and that they would like to see an Explanation of Significant Differences (ESD) for the ROD that declares the MSUs to be on-site. DOE is evaluating this to determine if it is the best solution. While this issue is evaluated, management of purgewater on the Hanford Site will continue as it has, in accordance with our current RL/regulator approved removal action.
  - Provided RL a whitepaper on June 22, 2020, that summarized results of an evaluation of current practices and regulatory requirements for the disposal of purgewater. Recommendations included submittal of ROD Non-significant Change and a change to the Purgewater Removal Action Memorandum.
- Monitoring & Reporting:
  - Due to COVID-19 restrictions, groundwater sampling events that were scheduled for the May/June time frame were cancelled. This impacted 34 wells and aquifer tubes that were scheduled for routine groundwater monitoring. The next planned events are scheduled for August and November.
- Remedial Actions & System Modifications:
  - The volume of groundwater treated and mass of Cr(VI) removed from the 100-HR-3 P&T systems during May and June are:

<b>Month</b>	<b>Gallons Treated (in millions)</b>	<b>Hexavalent Chromium Removed (kg)</b>
May	58	5.9
June	62	6.0

FY 2020 (October through June 2020) P&T performance to date:

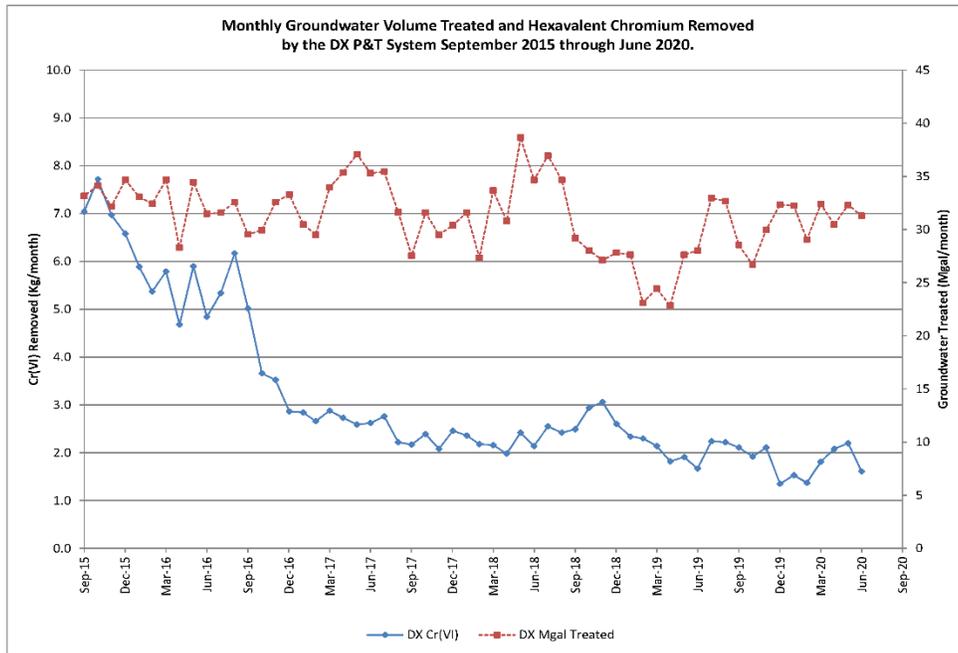
<b>P&amp;T System</b>	<b>Treated (mgal)</b>	<b>Removed (kg)</b>
DX	277	16
HX	207	29
Total	484	45

- Figure HR-1 illustrates the monthly average pumping rates for operating extraction wells across the 100-HR-3 system.
- Summaries of the monthly Cr(VI) removed and groundwater volume treated at DX and HX P&T systems are shown in Figures HR-2 and HR-3, respectively.

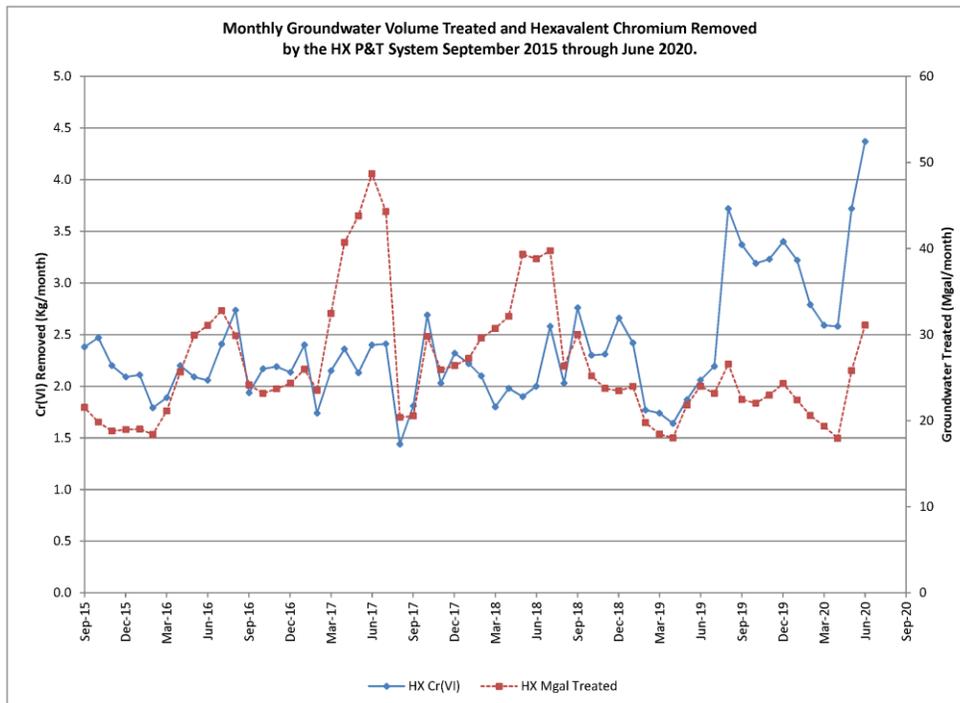


**Groundwater Summary by OU (May - June 2020 Data)  
100/300 Area Unit Managers Meeting  
July 16, 2020**

**Figure HR-1. June 2020 Average Pumping Rates for the 100-HR-3 P&T System**



**Figure HR-2. Monthly Cr(VI) Removed and Groundwater Volume Treated by DX P&T September 2015 through June 2020**



**Figure HR-3. Monthly Cr(VI) Removed and Groundwater Volume Treated by HX P&T September 2015 through June 2020**

**Regulatory Agency Comments:** No Comment

**Groundwater Summary by OU (May - June 2020 Data)  
100/300 Area Unit Managers Meeting  
July 16, 2020**

**100-F Area Groundwater Operable Unit**

*EPA Lead (RL – S. Balone, CHRPC – R. Evans, M. Hartman)*

- CERCLA Process Implementation:
  - Nothing new to report.
- Monitoring & Reporting:
  - Seventeen wells were scheduled for sampling in June, but sampling has been delayed due to COVID work restrictions. June manual water-level measurements were also delayed.

**Regulatory Agency Comments: No Comment**

**300 Area Groundwater Operable Unit**

*EPA Lead (RL – J. Sands, CHRPC – D. St. John, V. Rohay, E. Frohling, S. Bendana)*

- CERCLA Process Implementation:
  - Responses to CHPRC internal review comments were completed on June 29, 2020 for SGW-63113, *300-FF-5 Operable Unit Enhanced Attenuation Uranium Sequestration Completion Report*. The report was transmitted to RL on July 9 and is currently under review.
  - Responses to CHPRC internal review comments were completed on June 2, 2020 for SGW-64679, *300-FF-5 Operable Unit Remedial Action Performance Evaluation for 2019*
- Remedial Actions:
  - Nothing new to report
- Monitoring & Reporting:

***300 Area Industrial Complex***

- One of the 11 wells scheduled for CERCLA monitoring in June was sampled as scheduled. The other 10 wells were not sampled in June due to the COVID-19 fieldwork delay. The next CERCLA sampling event for long-term monitoring wells is scheduled for December 2020.
- The one well (699-S29-E16C) scheduled for AEA monitoring in April was not sampled as scheduled due to the COVID-19 fieldwork delay. Eight of the 9 wells scheduled for sampling in June were sampled as scheduled. The ninth well was not sampled in June due to the COVID-19 fieldwork delay. The next AEA sampling event is scheduled for September 2020.
- The two wells, 399-4-16 and 399-4-15, downgradient of the 324 Building were not sampled as scheduled in April due to the COVID-19 fieldwork delay, and the April sampling event has been cancelled. The next sampling event at these wells is scheduled for July 2020.
- Twenty-eight wells in the 300 Area Industrial Complex are being monitored semiannually to support calibration of the fate and transport model. Three wells were sampled as scheduled in June. The other 25 wells were not sampled in June due to the COVID-19 fieldwork delay. The next sampling event at these wells is scheduled for December.
- Thirteen wells in the Stage B area are being monitored quarterly for one year to support calibration of the fate and transport model (per TPA-CN-0883). Two of the 13 wells were sampled as scheduled in June. The other 11 wells were not sampled in June due to the COVID-19 fieldwork delay. The next sampling event at these wells is scheduled for September 2020.
- Eleven wells are being sampled quarterly for one year to support evaluation of the elevated uranium concentrations observed at well 399-6-3 (per TPA-CN-0883). The wells were not sampled as scheduled in June due to the COVID-19 fieldwork delay. The next sampling event at these wells is scheduled for September.

**Groundwater Summary by OU (May - June 2020 Data)  
100/300 Area Unit Managers Meeting  
July 16, 2020**

***618-10 Burial Ground/316-4 Crib***

- The 5 wells scheduled for CERCLA sampling in May 2020 were not sampled as scheduled due to the COVID-19 fieldwork delay, and the May sampling event has been cancelled. The next sampling event is scheduled for August.
- The 1 well scheduled for AEA sampling in May 2020 was not sampled as scheduled due to the COVID-19 fieldwork delay, and the May sampling event has been cancelled. The next sampling event is scheduled for November.

***618-11 Burial Ground***

- The next CERCLA sampling event is scheduled for October 2021.
- The next AEA sampling event is scheduled for October 2020.

***300 Area Process Trenches (316-5) RCRA Monitoring***

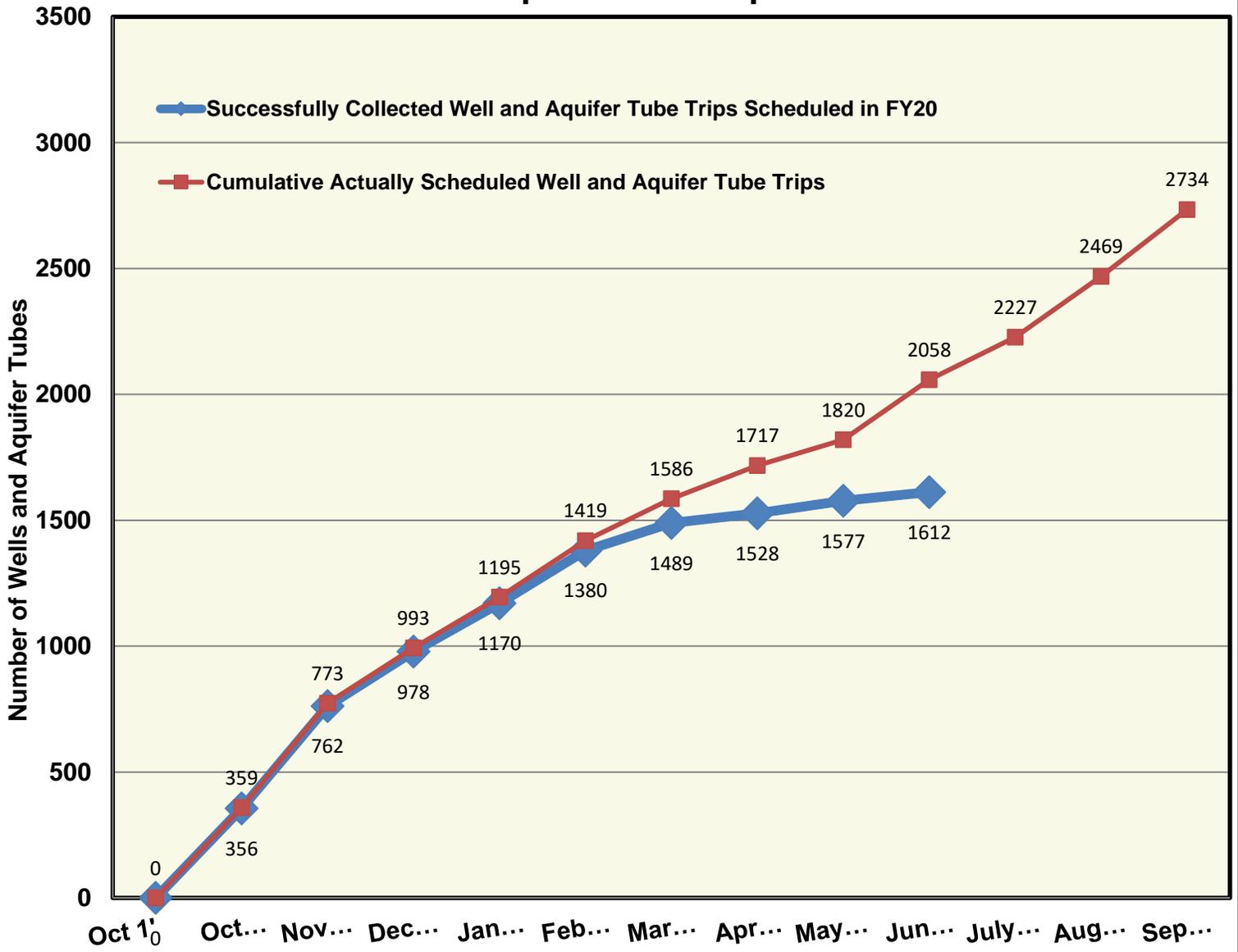
- The 8 RCRA wells were sampled as scheduled in June. The next RCRA sampling event is scheduled for September 2020.

**Regulatory Agency Comments: No Comment**

Groundwater Summary by OU (May - June 2020 Data)  
100/300 Area Unit Managers Meeting  
July 16, 2020

Hanford Annual Groundwater Sampling Program Performance  
Results for Samples Completed versus Sample Scheduled

**FY 2020 Successfully Collected vs Scheduled Well and Aquifer Tube Trips**



**Groundwater Summary by OU (May - June 2020 Data)  
100/300 Area Unit Managers Meeting  
July 16, 2020**

**Documents Submitted to the AR**

Document Number	Document Title	Referencing Document
DOE_RL_2015-56_R2	Hanford Atomic Energy Act Sitewide Groundwater Monitoring Plan	Secondary Document
DOE-RL-2019-07_ADD1_R0	Hanford Atomic Energy Act Sitewide Well Installation Sampling and Analysis Plan, Addendum 1: Wells 299-E35-6, 299-W19-132, 299-W22-123, 299-W22-125, and 699-S6-E3B	Secondary Document
DOE-RL-2019-07_R0	Hanford Atomic Energy Act Sitewide Well Installation Sampling And Analysis	Secondary Document
ECF-300FF5-19-0086_R0	Stomp Modeling Calculations in Support of the Stage B Sequestration of Uranium at 300-FF-5 Operable Unit	SGW-63113_R0
ECF-300FF5-19-0089-R0	Geochemical Evaluations and Reactive Transport Modeling in Support of Stage B Enhanced Attenuation Remedy At 300-FF-5-Operable Unit	SGW-63113_R0
SGW-64537_R0	Data Usability Assessment for 300-FF-5 Stage B Skids	SGW-63113_R0
ECF-100NR2-19-0128_R0	Evaluation of Projected Hexavalent Chromium Concentrations at the 100-N Shoreline In Support Of the 100-N Remedial Investigation/Feasibility Study	Annual Reports

**Approved Change Notices**

Number	Title
TPA-CN-0891	DOE/RL-2018-10, KW Soil Flushing/Infiltration Treatability Test Plan Sampling and Analysis Plan, Rev. 0
TPA-CN-0892	DOE/RL-2013-29, Sampling and Analysis Plan for 100-KR-4 Groundwater Operable Unit Monitoring, Rev. 0
TPA-CN-0894	DOE/RL-2013-48, Operation and Maintenance Plan for the 100-KR-4 Pump and Treat Systems, Rev. 1
M-16-19-03	Deletion of Target Dates M-016-110-T02 and M-016-119-T01 in TPA Action Plan, Appendix D

*The DOE Project Managers have identified no outstanding issues with the preceding month's Environmental Performance Report for this scope.*

**100-OL-1 Operable Unit Report  
100/300 Area Unit Manager Meeting  
July 16, 2020**

**100-OL-1 OU Scope** - (*John Sands, PNNL*)

**Interim Milestone M-015-97**, Change Number M-15-19-01, Lead Regulatory Agency: Ecology

- Submit to Ecology the 100-OL-1 Operable Unit Feasibility Study Report, Draft A.
  - Due date: 01/15/2021, extended from 8/30/2020

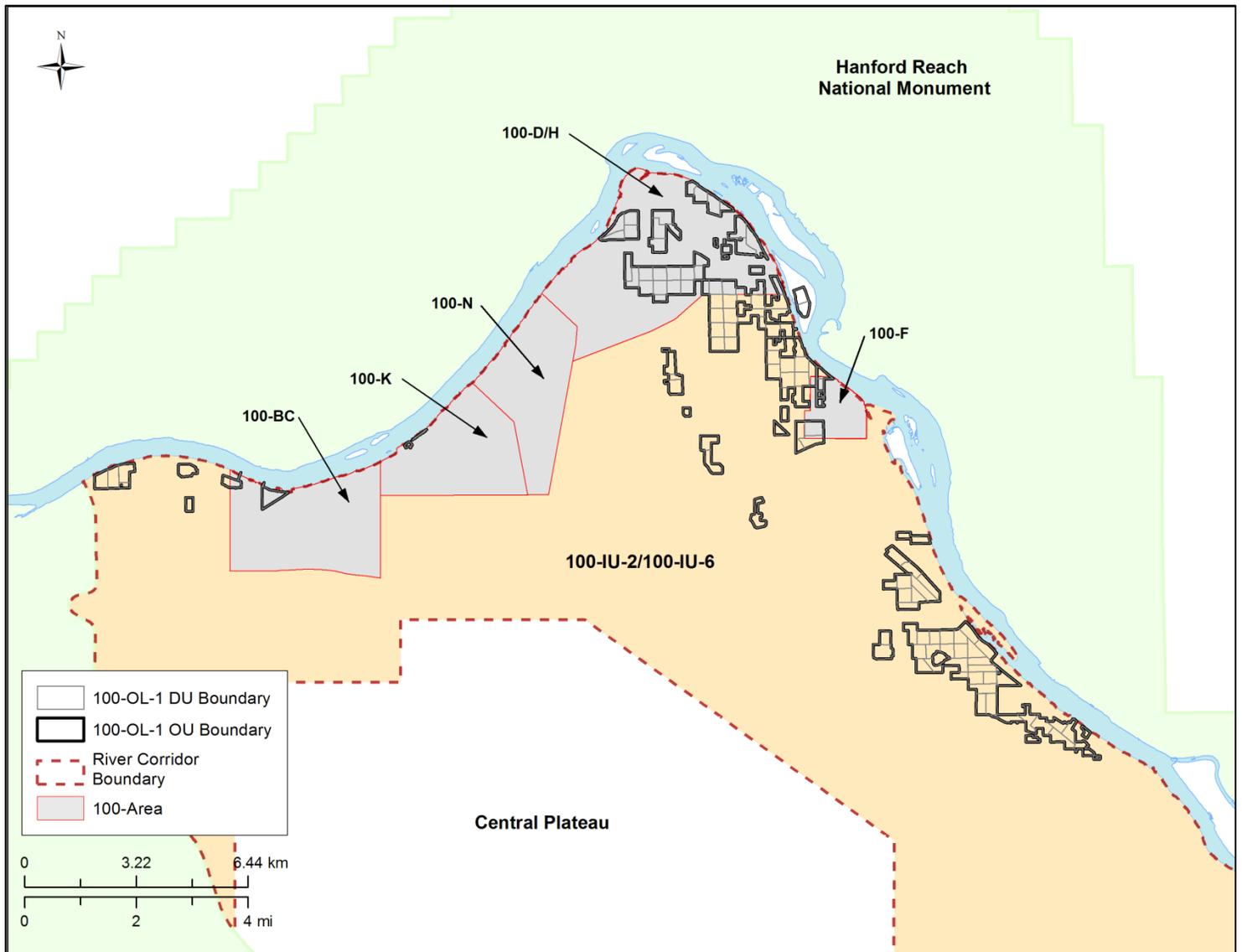
**Background**

- 100-OL-1 OU covers 4,995 acres across the River Corridor, incorporating lands where former orchards used lead arsenate pesticide (Figure 1). Lead arsenate was the standard pesticide for controlling codling moths in many fruit trees from the 1890s through 1988. Some waste sites in the 100 Area contain relatively high lead and arsenic concentrations near the soil surface. 100-OL-1 OU was divided into 133 decision units (DUs) for the evaluation of lead and arsenic in the surface soils using a portable x-ray fluorescence (XRF) analyzer. The Remedial Investigation found:
  - There are 83 DUs (3,056 acres) that need no further action because the nature and extent of lead and arsenic soil concentrations in the DUs do not meet or exceed any criteria of the “3 part rule” (WAC 173-340-740(7)) for human health or ecological screening levels.
  - There are 9 DUs (362 acres) that do not meet or exceed any criteria of the “3 part rule” for the human health screening levels, but exceed ecological screening levels.
  - There are 41 DUs (1,578 acres) that meet or exceed some criteria of the “3 part rule” for the human health screening levels.

**Status**

- On-going comment resolution of Remedial Investigation for the 100-OL-1 Operable Unit Hanford Orchard Lands (DOE/RL-2016-54, Draft A). Comments from Ecology were received in May 2018. All comments are either dispositioned or have a path is set for disposition.
- The ecological risk assessment is ongoing and is scheduled for completion by the subcontractor on 7/2020.

**100-OL-1 Operable Unit Report**  
**100/300 Area Unit Manager Meeting**  
**July 16, 2020**



**Figure 1. The 100-OL-1 OU and Associated Decision Units across the Hanford Site River Corridor**

100/300 Area UMM  
 Action Items List  
 July 16, 2020

CHPRC-2002629  
 ATTACHMENT 9

Open (O)/ Closed (X)	Action No.	Co.	Actionee	Project	Action Description	Status
O	187		Randal Fox	CHPRC	Check on notifications process to alert regulators when events cause remedial systems to be out of service. Examples include fire, power outages and unusual events.	
O	188		Bill Faught	CHPRC	Show cancelled or delayed well sampling trips on future UMMs. Use tables as before for planned, successful and failed trips with reasons.	