Final
HTW BCT
Meeting Minutes
February 10, 2023

BRAC Conference Room and Teleconference
Former Fort Ord, California

Agenda

Reference the handout titled "HTW BRAC Cleanup Team Meeting Agenda, Friday, February 10, 2023, at 1:30 PM, Former Fort Ord, California."

1. Attendance and Announcements

Last Name	First Name	Organization	By Phone
Anderson	Thor	Burleson Consulting	x
Bleichner	Randall	California Department of Toxic Substances Control (DTSC)	x
Cervantes	Christina	Chenega for BRAC	x
Clancy	Maeve	U.S. Environmental Protection Agency (USEPA)	
Corr	Erin	USACE	
Dillon	Holly	Ahtna Global, LLC (Ahtna)	x
Facchini	Hudson	Chenega for BRAC	
Floyd	Bridget	U.S. Army Corps of Engineers (USACE)	x
Gutierrez	Alberto	DTSC	
Herrmann	Christian	Chenega for BRAC	
Hession	Shaelyn	Ahtna	x
Kochman	Aaron	Chenega for BRAC	
Kosowski	Sylvester	Ahtna	x
Kowalski	Bart	Chenega for BRAC	
Lam	Nancy	USACE	
Leary	Brett	DTSC	
Lieberman	Derek	Ahtna	
Lindh	Margaret	Ahtna	x
No	Jason	Chenega for BRAC	
Nozaki	Chieko	Chenega for BRAC	
Payton	Curtis	U.S. Army BRAC, Fort Ord Office	
Rodgers	Teresa	USACE	x
Schmidt	Eric	Ahtna	x
Sellinger	Amber	California Regional Water Quality Control Board, Central Coast Region (CCRWQCB)	
Soderberg	Sheila	CCRWQCB	x
Stiebel	Cary	Chenega for BRAC	

An announcement was made that Teresa Rodgers will be the USACE Tech Lead for the munitions response (MR) program now that Curtis Payton is the BRAC Environmental Coordinator. Until Curtis's email is setup, his temporary email is curtis@fortordcleanup.com.

2. BCT Minutes Status

The HTW BCT meeting minutes are final through the last meeting in December.

3. Community Outreach Update

The handout titled "U.S. Army Fort Ord Environmental Cleanup Community Outreach Update" was reviewed. Additional discussion included:

- Analysis of the 2021 Community Survey is in progress.
- Several public inquiry phone calls were received in December referencing a veterans news article about the Fort Ord ATSDR public health re-assessment and correlating illness with being stationed at Fort Ord. The article referred readers to the Fort Ord cleanup information line and website for more information. The callers were provided information about the cleanup process at Fort Ord with documents available online, that the re-assessment is being conducted by ATSDR, and any health-related inquiries can be directed to the Veterans Administration.
- The cleanup document distribution preferences are being updated.
- The Community Involvement Workshop (CIW) is scheduled for February 11 and the Technical Review Committee meeting is scheduled for February 14, both covering HTW topics. Community members were reminded about the CIW on January 27 and newspaper advertisements were published February 2-8 and February 9. ATSDR will attend the CIW and TRC and will have an agenda item to discuss at the TRC.
- There have been new comments on HTW documents received from the Fort Ord Community Advisory Group (FOCAG).

4. Operable Unit 2 (OU2)

a. Groundwater Remedy/Monitoring –

The handout titled "Operable Unit 2 Data and Status" was reviewed. Additional discussion included:

- Table 1 shows that the OU2 groundwater treatment plant (GWTP) was online 100 percent (%) of the time for December and 98% of the time for January. The GWTP flow rate is just under 1,000 gallons per minute (gpm).
- Table 2 shows the OU2 GWTP injection point of compliance analytical results from December through January. COCs were not detected (ND) or detected at concentrations below their discharge limits.
- Key events were discussed for December through January and upcoming events as listed in the handout.
- The Fourth Quarter 2022 groundwater monitoring program data were discussed and compared to data from previous sampling events.
    - Tables 3 and 4 have analytical results for A-Aquifer wells. Green-highlighted wells show a decrease in concentrations and orange-highlighted wells show an increase in concentrations between the Third and Fourth Quarters 2022. The validation from the Fourth Quarter 2022 event shows a lot of estimated (J) and estimated high bias (J+) results.
        - EW-OU2-16-A had an increase in two COCs, with 1,1-dichloroethane (1,1-DCA) and vinyl chloride (VC) concentrations going above their aquifer cleanup levels (ACLs).

  - EW-OU2-10-A had a decrease in 1,2-dichloroethane (1,2-DCA) concentrations below the ACL.
  - MW-OU2-12-A had a decrease in concentrations of trichloroethene (TCE), tetrachloroethene (PCE), and 1,1-DCA. Now this well is more comparable to adjacent extraction well EW-OU2-12-A concentrations.
  - MW-OU2-40-A had a decrease in TCE concentrations, but it was still above the ACL.
  - A few wells had increasing concentrations in Hydraulic Zone 5. MW-OU2-05-AR had an increase of VC, MW-OU2-07-A had an increase of PCE, and MW-OU2-75-A had an increase of VC.
  - A few wells had decreasing concentrations in Hydraulic Zone 5. MW-OU2-04-A 1,2-DCA decreased below the ACL. MW-OU2-06-AR had a decrease in PCE concentrations to below the ACL. MW-OU2-08-A had a decrease in concentrations with all COCs below ACLs.
- The A-Aquifer COC plume map from the Third Quarter 2022 was shared. The COC plume map is in progress for the Fourth Quarter 2022 event. The Fourth Quarter 2022 report is scheduled to be issued this month.
- The trend chart for MW-OU2-05-AR, located northwest of the eastern extraction well network, shows continued increase in 1,1-DCA concentrations.
- The trend chart for MW-OU2-06-AR, located downgradient of the eastern extraction well network, shows COC concentrations have been stable recently with minor COC decreases.
- The trend chart for MW-OU2-07-A, located northwest of the eastern extraction well network, shows continued decrease in 1,1-DCA concentrations and increase in PCE and TCE concentrations.
- MW-OU2-08-A is located upgradient of MW-OU2-07-A and it had a decline in COC concentrations, which has happened a couple times before in fourth quarter events, though the past two times may have been related to sample station location, but this time it is not the same issue.
- MW-OU2-75-A is located upgradient of MW-OU2-08-A and had minor COC increases.
- Upper 180-Foot Aquifer TCE Fourth Quarter 2022 results were consistent with previous results with a few exceptions.
- There were a few wells with decreasing TCE concentrations that remained above the ACL: MW-OU2-23-180, MW-OU2-24-180, MW-OU2-44-180, and MW-OU2-50-180.
- MW-OU2-81-180 had TCE concentrations increase to just above the ACL.
- MW-OU2-28-180 is a downgradient well that has TCE concentrations above and below the ACL seasonally.
- The Upper 180-Foot Aquifer COC plume map from the Third Quarter 2022 was shared.
- The trend chart for MW-OU2-28-180 TCE shows a seasonal trend.
- The trend chart for MW-OU2-62-180 shows continued decreasing TCE concentrations still below the ACL. This well is upgradient of MW-OU2-28-180.

b. Treated Water Reuse – The handout titled "Operable Unit 2 Treated Water Reuse" was reviewed. The total treated water used since October 2016 is approximately 4.4 million gallons.

c. Landfills Operations and Maintenance (O&M) – The handout titled "Former Fort Ord Operable Unit 2 Landfills Data and Status" was reviewed. Additional discussion included:

- First Quarter 2023 key events were discussed, including:

  - Erosion caused by precipitation was shown on the photograph in the handout. A portion of the Landfill liner is exposed on the north side of Area F and will be covered temporarily with a tarp and sandbags until a permanent repair will be conducted after the rainy season is over.
  - Quarterly perimeter probe monitoring will be completed this month for the First Quarter. The Second Quarter event will include annual volatile organic compound (VOC) sampling.
  - Monterey County Department of Health (MCDH) inspection will be conducted this quarter and is not yet scheduled.
- TTU operations have been ongoing.
  - The TTU is offline this week.
  - Over 80,000 pounds of methane have been removed since operation began in 2007.
  - The influent methane concentration at the TTU is stable at 37%.

5. Sites 2 and 12 (Sites 2/12)

The handout titled "Sites 2 and 12 Data and Status" was reviewed. Additional discussion included:

- Table 1 of the handout shows Sites 2/12 GWTP data for December through January. The GWTP was online approximately 50%. The GWTP is operated with a pulse pumping strategy, online for one week, and offline for one week. This has been successful in removing additional PCE mass, especially in stagnant areas around extraction well EW-12-08-180U where PCE concentrations rebounded earlier this year.
- The soil vapor treatment unit (SVTU) was restarted in January after the failed variable frequency drive (VFD) was replaced in December.
- Table 2 shows the Site 2 injection point of compliance was sampled December through January, with COCs detected at concentrations below their discharge limits.
- Key events were discussed for December through January and upcoming events as listed in the handout.
- The Fourth Quarter 2022 GWMP and some preliminary First Quarter 2023 results were discussed.
  - TCE groundwater concentrations have been below the ACL for quite some time, showing no impact to groundwater from soil gas.
  - PCE groundwater concentrations for all wells, except EW-12-08-180U, have been below the ACL for quite some time. After a couple quarters below the ACL for the first time at Sites 2/12, the GWTP was shut down per Quality Assurance Project Plan (QAPP) decision rules because it appeared Remedial Action Objectives had been achieved. After GWTP shutdown, the PCE concentrations rebounded above the ACL pretty quickly. Upon restart of the GWTP they decreased below the ACL. The First Quarter 2023 results at EW-12-08-180U continue to show an increase in PCE concentrations. The current pulse pumping strategy will be re-evaluated when the PCE concentrations are stable or declining below the ACL for at least a few consecutive samples. Then the pulse pumping strategy could be revised to have a longer offline period or shut down the GWTP completely and monitor for rebound.
  - The trend chart for EW-12-08-180U shows PCE was previously in a seasonal cycle, started declining in 2019 to a point in 2022 where the GWTP was shut down. Recently, since pulse pumping started, there has been rebound and variability in concentrations.
- The Fourth Quarter 2022 soil gas data were presented and compared to previous events.
  - There were a couple soil gas probes with PCE concentrations above the soil gas screening level (SG-SL) but nothing above the soil gas cleanup level (SGCL).

- TCE concentrations were above the SGCL at all sampled soil gas probes in the SG-12-04 cluster in the Fourth Quarter 2022. The SVTU was restarted in January to address these higher concentrations, though there is no evidence that TCE in soil gas is affecting groundwater.
- The trend chart for the SG-12-01 probe cluster on the west side of Target shows PCE concentrations have been below the SGCL for quite some time.
- The trend chart for the SG-12-02 probe cluster in front of the Target entrance has had a declining PCE trend for a while, with a slight increase recently at the 10-foot probe. Monitoring will continue to see if that is a trend, but the concentration is still below the SGCL. This probe is a good indicator for natural attenuation since it is not affected by SVTU operations.
- The SG-12-04 probe cluster shows that PCE concentrations are still below the SGCL and SG-SL, but recently have had a slightly increasing trend.
- The trend chart for the SG-12-04 probe cluster shows TCE concentrations with all probes above the SGCL with an increasing trend after the SVTU was shut down.
- The trend chart for the SG-12-06 probe cluster located south of SG-12-04 has low PCE concentrations.
- SG-12-07-65 PCE trend chart shows concentrations increasing since the rebound study and above the SG-SL. TCE at this probe is well below the SG-SL. This probe is being captured by the SVTU operations.
- SG-12-17-60 TCE trend chart shows concentrations are below the SG-SL despite a slight increase during the rebound study.
- SG-12-20 probe cluster PCE trend chart shows concentrations above the SG-SL but below the SGCL. This probe is being captured by the SVTU operations.
- Third Quarter 2022 groundwater and soil gas plume maps were shared.

6. Operable Unit Carbon Tetrachloride Plume (OUCTP)

a. Groundwater Remedy/Monitoring – The handout titled "Operable Unit Carbon Tetrachloride Plume Data and Status" was reviewed. Additional discussion included:

- The Fourth Quarter 2022 GWMP data were discussed:
  - A-Aquifer carbon tetrachloride (CT) concentrations were similar to previous events with a few exceptions.
    - EW-BW-109-A in enhanced in-situ bioremediation (EISB) Deployment Area 1C had an increase in CT concentrations.
    - MW-BW-91-A in EISB Deployment Area 3A has showed a continuing decline in CT concentrations since treatment ended in 2017 and is recently below the ACL.
    - MW-BW-90-A had a decrease in CT concentrations but continues to be above the ACL.
    - MW-BW-93-A increased above the CT ACL in the Second Quarter 2022 event and then decreased below the ACL in the Third Quarter 2022 and Fourth Quarter 2022 events.
    - EW-BW-155-A had an increase in CT concentrations but remains below the ACL.
    - MW-BW-32-A in the mid-plume area continues to have persistent CT concentrations above the ACL.
    - MW-BW-36-A increased above the CT ACL in the Fourth Quarter 2022 event.
    - There were many wells in Hydraulic Zone 5 with increasing CT concentrations and two sample stations. They will be discussed at the end of the handout.

- Table 3 shows new monitoring wells MW-BW-96-A and MW-BW-97-A profile results. There was no CT detected but had TCE and chloroform concentrations below their ACLs.
- The map for the Third Quarter 2022 A-Aquifer CT plume was shared.
- The trend chart for MW-BW-26-A in EISB Deployment Area 2A has had a declining CT trend since 2019, though still above the ACL.
- The trend chart for MW-BW-32-A in Hydraulic Zone 4 shows consistent CT concentrations recently.
- The trend chart for MW-BW-91-A in EISB Deployment Area 3A shows that CT has continued to be below the ACL.

- The Upper 180-Foot Aquifer CT results were similar to previous events.
  - MP-BW-46-170 had an increase in the CT concentration in the Fourth Quarter 2022.
  - MW-OU2-64-180 had increasing CT trend with concentrations above the ACL.
  - The map for the Third Quarter 2022 Upper 180-Foot Aquifer CT plume was shared.
  - The trend chart for MP-BW-46-170 shows an increasing CT trend overall with seasonal fluctuations. This well is in the northern plume area.
  - The trend chart for MW-OU2-64-180 shows a seasonal trend with recently consistent CT concentrations.
- The Lower 180-Foot Aquifer CT results were similar to previous events.
  - TCE concentrations decreased at EW-OU2-07-180 below the maximum contaminant level (MCL).
  - MW-BW-59-180 had an abnormal decrease in the TCE concentration below the MCL in the Fourth Quarter 2022.
  - The map for the Third Quarter 2022 Lower 180-Foot Aquifer CT plume was shared. There will be no TCE plume for the Fourth Quarter 2022 map.
  - TCE at EW-OU2-07-180 has had a consistently increasing trend since 2016, and decreased in Fourth Quarter 2022.
  - The trend chart for MP-BW-49-316 shows CT consistently above the ACL with seasonal fluctuations.
  - The trend chart for MW-BW-59-180 shows a seasonal TCE concentration trend consistently above the ACL until the anomalous decrease in the Fourth Quarter 2022 event.
  - The trend chart for MW-OU2-69-180 shows CT has been above the ACL since 2017 with a recent increase but within the historical range.
- Shallow CT concentration results in the A-Aquifer Hydraulic Zone 5 wells in the City of Marina were discussed. Most of the results were qualified estimated as high bias and will be sampled again in the First Quarter event next week.
  - MW-BW-80-A has CT concentrations above the ACL in the shallow station and increased in the Fourth Quarter 2022.
  - Shallow stations at MW-BW-75-A and MW-BW-79-A increased above the ACL in the Fourth Quarter 2022 event.
  - The trend chart for MW-BW-49-A shows CT continues to be below the ACL.
  - MW-BW-65-A had an increase in CT concentrations at the deeper station but was ND for the shallow station.
  - MW-BW-74-A both stations are below the CT ACL.

- MW-BW-75-A had an increase in CT concentrations at the deeper station and the shallow station increased above the ACL.
- MW-BW-79-A had an increase in CT concentrations at the deeper station and the shallow station increased above the ACL.
- MW-BW-80-A had an increase in CT concentrations at both sample stations.
- MW-BW-81-A increased above the CT ACL.
- MW-BW-82-A continues to have the deeper station above the ACL, but the shallow station is ND.
- A work plan is in regulatory agency review for installing three new monitoring wells downgradient of this area.

b. TCE in the Lower 180-Foot Aquifer – TCE is not a COC for the Lower 180-Foot Aquifer, but it is being monitored to assess any potential impact on the downgradient drinking water supply wells. Additional discussion included:

- A chart with Fourth Quarter 2022 TCE data for the Lower 180-Foot Aquifer was provided in the OUCTP handout in agenda item 6a.
- All of the wells had a decrease in the Fourth Quarter 2022 except for a slight increase at MW-OU2-82-180, but no wells are above the ACL.

7. Per- and Polyfluoroalkyl Substances (PFAS)

The handout titled "Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Assessment/Site Inspection" was reviewed. Additional discussion included:

- Previous 2022 PFAS SI field event activities were discussed as listed in the handout.
- The new Upper 180-Foot Aquifer monitoring well MW-10-07-180 downgradient of Site 10 was installed in January. The original smaller drill rig was unable to finish the installation and a larger drill rig completed the well. However, 140 feet of 8-inch steel casing was lost down the borehole after it separated and is located 140 to 280 feet below ground surface. Approximately 650 gallons of PFAS-free laboratory water and potable water were placed in the borehole during the well drilling process. The regulatory agencies were notified about this. The potable water source was sampled for PFAS and ND for all analytes. Well development was conducted in January and approximately 60 well casing volumes (660 gallons) were extracted to ensure the volume of water added to the borehole was removed prior to sampling. The groundwater sample was collected last week. This well location is outside of any historical COC plumes.
- The soil investigation-derived waste samples were collected last week. If results are above screening levels, soil stabilization will be implemented.
- The PFAS SI Narrative Report is in progress and scheduled to be issued as a draft in May.
- PFAS results received so far were discussed as listed in the handout.
    - The laboratory method used is Draft EPA Method 1633, reporting 40 PFAS compounds as identified in the SI Work Plan/QAPP. Only six out of the 40 PFAS compounds have screening levels.
    - Approximately 92 samples for PFAS have been collected and results received so far, including quality control (QC) samples (field blanks, equipment blanks, and duplicates). All QC samples have been ND for PFAS analytes.
    - The PFAS with detections above screening levels (SLs) are 11 samples with perfluorooctane sulfonic acid (PFOS), 7 samples with perfluorooctanoic acid (PFOA), and 4 samples with perfluorohexane sulfonate (PFHxS).

- Sites 2, 10, 12, 40A, and supply wells (FO-29, FO-30, and FO-31) had no PFAS analytes detected above SLs. The Site 10 downgradient new monitoring MW-10-07-180 sample results are still pending laboratory analysis.
- Four sites had PFAS analytes above SLs: Fritzsche Army Airfield (FAAF) Fire & Rescue Station, Main Garrison Fire Station, FAAF Fire Drill Area (FDA), and OU2.
- At the FAAF Fire & Rescue Station and Main Garrison Fire Station it was reported that the fire department used to spray expired aqueous film-forming foam (AFFF) onto the unpaved area adjacent to the station.
- At the FAAF FDA in the Fort Ord Natural Reserve (FONR), soil at this site was previously remediated, including excavation and bioremediation.
- At OU2, the suspected PFAS source area is the Landfills, which is being actively treated for VOCs.
- There was one extra PFAS soil sample collected during the field event near the skydive school drop zone where black-colored soil was encountered. There was no apparent odor, and the soil discoloration faded to dark green and then ended at about 17 feet below ground surface.

8. Basewide Range Assessment (BRA) and Lead Evaluation Status

There was no handout for the BRA and Lead Evaluation Status. Discussion included:

a. BRA – The Comprehensive BRA Report was issued in December. No comments were requested, though comments were received from the USEPA and FOCAG, and DTSC requested an extension.

b. Lead Evaluation at HA 18D and HA 23D – The Army is preparing an Explanations of Significant Differences (ESD) for Site 39 with the recommended 200 milligrams per kilogram (mg/kg) lead cleanup value for soil for a residential use scenario. The schedule for the ESD will be shared once it is known.

c. Habitat Restoration – The handout titled "Site 39 Inland Ranges Habitat Restoration Status Update" was reviewed. Additional discussion included:

- Approximately 1,600 plants were being grown at a nursery for planting later at six sites, including 1,300 at Historic Area (HA) 34, which is the last site-specific restoration plan prescription (the last of the 19 sites). The rest of the sites are for adaptive management purposes. This fulfills all the plant prescriptions for all 19 sites, for a total of about 68,000 plants in total over the last 12 years. All plants completed installation in January. Last week 300 surplus plants were installed for a team building event. The grand total plants are now 68,732. The sites are now in caretaker and monitoring phase.
- Erosion control maintenance is being conducted at HA 34 collapsing rills, replacing worn straw wattles, broadcasting seed and straw, and installing fabric.
- The Annual Report is in progress and the results will be presented at the Annual Habitat Meeting on April 19.

9. Federal Facility Agreement (FFA) Schedule

a. Status Update – The FFA schedule is provided to the agencies with the upcoming primary documents with the month the Draft and Draft Final versions will be issued. Draft versions have a 60-day review period, and Draft Final versions have a 30-day review period.

b. Document Schedule – The handout titled "February 10, 2023, BCT Deliverable Schedule" was reviewed, and near-term documents were identified.

10. Action Items

The handout titled "HTW BCT 2023 Action Items" was reviewed.

- Action Item #1: The lead cleanup level status was discussed in agenda item #8. The ESD is in progress and the schedule for the document will be issued once it is known.
- Action Items #2-4: The Five-Year Review discusses TCE in the Lower 180-Foot Aquifer. The recommendation is to add the Lower 180-Foot Aquifer to OU2 via a decision document. The Army will work on an approach to this in the next couple of months for discussion at the next HTW BCT meeting.

11. Calendar Update

The calendar was reviewed for upcoming community outreach and HTW BCT meeting dates:

- The following 2023 dates were discussed:
    - Annual Habitat Meeting: April 19
    - Nature Walk: May 20
    - HTW BCTs: May 19 and July 14
    - CIWs: February 11 and July 15
    - TRCs: February 14 and July 18