



**Final
Hazardous and Toxic Waste (HTW)
Internal Progress Meeting (IPM)
Meeting Minutes
May 10, 2024**



BRAC Conference Room and Microsoft Teams Teleconference
Former Fort Ord, California

Agenda

Reference the handout titled “HTW IPM Meeting Agenda, Friday, May 10, 2024, at 9:30 AM, Former Fort Ord, California.”

1. Attendance and Announcements

| Last Name | First Name | Organization | By Teams |
|------------|------------|---------------------------------------------------------------------------------|----------|
| Cervantes | Christina | Chenega for BRAC | x |
| Clancy | Maeve | U.S. Environmental Protection Agency (USEPA) | |
| Dillon | Holly | Ahtna Global, LLC (Ahtna) | x |
| Eddy | Rena | U.S. Army Corps of Engineers (USACE) | x |
| Facchini | Hudson | Chenega for BRAC | |
| Gutierrez | Alberto | California Department of Toxic Substances Control (DTSC) | |
| Kemp | Jack | USACE | x |
| Kowalski | Bart | Chenega for BRAC | |
| Leary | Brett | DTSC | |
| Lieberman | Derek | Ahtna | |
| Lindh | Margaret | Ahtna | x |
| Lippa | Antonio | Ahtna | x |
| Lobo | Joelle | U.S. Army BRAC, Fort Ord Office | |
| Nozaki | Chieko | JBW Federal for BRAC | |
| Savage | Tom | USACE | |
| Schmidt | Eric | Ahtna | x |
| Sellinger | Amber | California Regional Water Quality Control Board, Central Coast Region (CCRWQCB) | x |
| Siemann | Kevin | USACE | |
| Steckling | Karyn | CCRWQCB | x |
| Stiebel | Cary | PIE Services for BRAC | |
| Valdez | Val | Chenega for BRAC | x |
| Wagoner | Shawn | Terracon | |
| Walak | Kelsey | USACE | x |
| Weisenfeld | Greg | Chenega for BRAC | |

Maeve Clancy with the USEPA announced that management personnel at the USEPA were re-organized. Replacements for John Chestnut and the Branch Chief on the Fort Ord project have not been announced yet, but Maeve will notify the project team once replacements are known.

2. BCT Minutes Status

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

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 2023 community surveys and interviews is in progress.
- A few key recent activities were highlighted, including:
 - The available online Community Involvement Workshop (CIW) that went live on February 10. So far, there have been 65 site visitors. Last year there were 204 site visitors over one year.
 - On February 12, the Fort Ord Environmental Justice Network (FOEJN) called to ask about contact information for the Agency for Toxic Substances and Disease Registry (ATSDR). On April 30, the FOEJN called a second time to get the ATSDR contact information again. FOEJN mentioned a report was received and comments were requested a few days after receipt. FOEJN said it will have comments, but could not name the report. There was no return call from FOEJN to say which document it was.
 - On February 13, the technical review committee (TRC) meeting was held.
 - On March 24 an information booth was held at California Wildlife Day, spoke with approximately 105 people.
 - On March 29, local news station KSBW conducted an interview with Joelle Lobo regarding the Bureau of Land Management (BLM) press release discussing the dangers of unauthorized trail usage. Another news station, KION, sent an inquiry for an interview, but did not follow up.
 - On April 13, an information booth was held at the Marina Earth Day event, spoke with approximately 99 people.
 - On April 18, there was a community member inquiry seeking information regarding a transferred parcel.
 - On April 21, an information booth was held at the Seaside Earth Day event, spoke with approximately 113 people.
 - On April 26, there was a USA Today newspaper article discussing Agent Orange usage and cited Fort Ord.
 - On April 26, community members were notified by mail and email about the May 11 Guided Nature Walk. On April 30, people were allowed to sign up for the Guided Nature Walk. On May 1, the signup capacity was reached.
- Upcoming activities were highlighted, including:
 - On May 11, the annual Guided Nature Walk event will be held.
 - On May 17, an informational booth will be held at the DLI Language Day event.
 - On July 13, the Fort Ord Cleanup website will have the in-person (CIW) open house and bus tours.
 - On July 16, the TRC meeting will be held to discuss the same topics as the CIW.
- There have been comments on recent HTW documents. Responses to comments are in progress or already completed.
- Photos of information booth events were shared.

- Amber Sellinger with the CCRWQCB noted that she never received information about the Guided Nature Walk. Chieko Nozaki with JBW Federal will check the distribution list and make sure Amber is on the list.

4. Habitat Restoration

The handout titled “Site 39 Inland Ranges Habitat Restoration Status Update” was reviewed. Additional discussion included:

- The 13th Annual Habitat Restoration and Monitoring meeting was held on April 16. Burlison Consulting (Terracon) presented on 2023 activities. Two historical areas (HAs) were presented for their benchmark 8th year of monitoring. HA 26 is a 14-acre site and has met all 6 of its success criteria. HA 48 is a small site of less than 0.10-acre and has met 4 of the 6 success criteria. HA 48 will be monitored again in year 13.
- The Annual Report is in progress and will be available on the cleanup website soon describing the 2023 activities.
- The Caretaker of Previous HA task included removing invasive species when encountered and minor erosion control repairs such as replacing old straw wattles.
- A presentation was prepared for the February 10 CIW online.
- The spring photo points monitoring was completed at all 19 sites.
- The HMP Annual survey was completed at HA 38.
- The species richness survey is in progress.
- Photos of Monterey gilia were shared.

5. 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 January through April, removing approximately two pounds of chemicals of concern (COCs) per month, at approximately 900 gallons per minute (gpm) flow rate. Cumulative removal of groundwater for treatment through December was 9.987 billion gallons removing 988 pounds of COCs. Treated water injection samples were below their discharge limits.
- Table 2 shows that there was no treated water used in 2024. Since 2016, a cumulative volume of 4.372 million gallons of treated water has been used.
- Key events were discussed for January through April and upcoming events as listed in the handout.
- Table 3 shows the past four quarterly events maximum COC concentration for the A-Aquifer and the Upper 180-Foot Aquifer in Table 4. The table was updated with the First Quarter 2024 data, and no changes were made to the COCs going above or below their aquifer cleanup levels (ACLs). There were minor changes in the data from the previous quarterly event.
 - In the A-Aquifer, there are 7 out of the 11 COCs with concentrations above ACLs in the past four quarterly groundwater monitoring program (GWMP) events. The range of COC concentration/ACL ratios is approximately 1 to 3 times the ACL, with low-ACL COCs 1,2-dichloroethane at 6 times the ACL and vinyl chloride (VC) the highest ratio at 54 times the ACL.
 - In the Upper 180-Foot Aquifer, only one COC (TCE) is above its ACL at 3 times the ACL for the maximum concentration in the past year.
 - The graph shows the trend over the past couple of years of the COC concentration/ACL ratios, showing a general declining trend.

- The First Quarter 2024 A-Aquifer COC plume map was shared. Compared to the Fourth Quarter 2023, the plume sizes have decreased.
 - The PCE plume that was persistently at MW-OU2-27-A is no longer there and hopefully this trend will continue.
 - The trendline for MW-OU2-05-AR shows 1,1-dichloroethane (1,1-DCA) concentration decreased in the Fourth Quarter 2023 below the ACL. All COCs have been below ACLs for two quarters. Groundwater elevation has continued to be elevated, indicating a possible inverse relationship between groundwater elevations and COC concentrations.
 - MW-OU2-06-AR is south of MW-OU2-05-AR. 1,2-dichloroethane (1,2-DCA) decreased below its ACL in the Fourth Quarter 2023. All COCs have been below ACLs for two quarters.
 - MW-OU2-07-A is located upgradient of MW-OU2-05-AR, which had COCs below their ACLs for the past year and groundwater elevations still elevated.
 - MW-OU2-08-A is located upgradient of MW-OU2-07-A and has had COCs decrease below their ACLs in the past 1.5 years. The groundwater elevation has been consistently high.
 - MW-OU2-75-A is located upgradient of MW-OU2-08-A. Chloroform is still above the ACL. The water level is not as elevated here compared to the other wells.
- The First Quarter 2024 Upper 180-Foot Aquifer COC plume map was shared. The TCE plume had minor shifts since the Fourth Quarter 2023.
 - MW-OU2-28-180 is located downgradient in Hydraulic Zone 8 near the suspected discontinuity in the aquitard. There is a seasonal trend in COC concentrations and groundwater elevations. Over the past 1.5 years, TCE has been below the ACL.
 - MW-OU2-62-180 is located upgradient in Hydraulic Zone 8 with TCE concentrations previously above the ACL in 2019 but declining since then and below the ACL in the past 3 years.
- Karyn Steckling with the CCRWQCB asked when EW-OU2-08-180 would be online again. It was noted that there are a few components that need to be replaced to restart the well and it will be completed before the end of July.
- Karyn asked if the OU2 GWTS is sampled for PFAS. It was noted that, since PFAS is not a COC, the OU2 GWTS is not sampled for PFAS.

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

- Key events were discussed for the First Quarter 2024 perimeter probe monitoring and Second Quarter 2024 annual compliance probe monitoring and sampling and scheduled events for the Third Quarter 2024 as shown in the handout.
- A photo was shared of the thermal treatment unit (TTU) source testing that was conducted on April 18.
- The minor erosion on Area F was temporarily mitigated to prevent further erosion with sand bags. The linear low-density polyethylene liner was not exposed.
- The TTU has been in operation for 48-50 hours every other week, with a cumulative runtime of 406 hours in 2024 and has removed a cumulative mass of approximately 34,284 pounds of methane from the OU2 Landfills since 2007.
- The methane concentration at the TTU influent was last measured at 35 percent (%). Generally, the amount of methane removed from the Landfills decreases over time as the Landfills age.
- Curtis Payton with the U.S. Army, Fort Ord BRAC office, sent a revised Landfill import soil acceptance guidance document. This revision included a decision flow chart. Maeve Clancy with

the USEPA noted that the USEPA attorney is still reviewing the document. The CCRWQCB will have comments for the document and DTSC is still reviewing the document.

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

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

- The GWTP operated 90% of the time in January and over 96% of the time on average from February through March, and 93% of the time in April. The average flow rate was approximately 38 gpm for January through April.
- The low flow rate and COC mass removal is due to a single extraction well, EW-12-08-180U, being in operation. Due to low COC concentrations, the GWTP restarted pulse pumping operations with one week on and one week off starting with its first offline cycle the week of April 29.
- There was no need to operate the soil vapor treatment unit (SVTU) during the First Quarter 2024 based on soil gas concentrations. However, it was restarted at the end of April due to the increasing soil gas COC concentration trend at SG-12-04 indicating COC concentrations would exceed the soil gas cleanup level (SGCL).
- Key events were discussed for January through April and upcoming events as listed in the handout.
- The First Quarter 2024 GWMP tetrachloroethene (PCE) results were discussed. The draft First Quarter 2024 groundwater plume map was shared.
 - The first PCE concentration for EW-12-08-180U in the First Quarter 2024 was 9.4 micrograms per liter ($\mu\text{g/L}$), which is comparable to the concentrations in the Fourth Quarter 2023 and above the ACL. However, since then there have been several monthly sampling events below the ACL, which led to restarting GWTP pulse pumping April 29.
 - MW-12-20-180U is north of EW-12-08-180U and had low PCE concentrations for a while but had results above the ACL since the Second Quarter through Fourth Quarter 2023. This PCE increase may be related to the increase in groundwater elevation. PCE was not detected in this well in the First Quarter 2024.
 - MW-12-24-180U is adjacent to EW-12-08-180U and had a PCE concentration above the ACL in the Third Quarter 2023. The trend chart for this well shows that, before EW-12-08-180U operation began, PCE concentrations at this well were around 100 $\mu\text{g/L}$ in 2013 and dropped off very quickly once extraction well operation began. PCE concentrations in this monitoring well indicated where extraction well EW-12-08-180U would be placed.
- The First Quarter 2024 Soil Gas Monitoring Program (SGMP) data were presented. The draft First Quarter 2024 soil gas plume map was shared.
 - The soil gas probe cluster SG-12-04 concentrations previously above the TCE SGCL were reduced to well below the SGCL after the soil vapor extraction and treatment system (SVETS) was restarted in the First Quarter 2023, though minor rebound was observed in the Second Quarter 2023 after the SVETS was shut off with similar concentrations in the Third Quarter 2023. Fourth Quarter 2023 and First Quarter 2024 results show a further increase in concentrations, but still below the SGCL. Since the trend predicts TCE concentrations will be above TCE SGCL in the Second Quarter 2024, the SVETS was restarted after the Second Quarter soil gas sampling event on April 25.

- SG-12-01 is located close to well MW-12-20-180U but does not have PCE concentrations above the SGCL. Even with shutdown of the SVETS, there is minimal rebound of concentrations at SG-12-01. This probe is sampled at 65 feet depth near the groundwater interface to monitor for potential partitioning between soil gas and groundwater, and there is no evidence of that.
- SG-12-02, located by Target, is outside the influence of the SVETS due to the stormwater infiltration basin, but shows natural attenuation of COCs with a continuing declining concentration trend.
- SG-12-04 trend chart shows the rebound of TCE occurring after SVETS shut down events. When the SVETS is restarted, there is an immediate reduction in TCE concentrations to below cleanup levels.
- SG-12-07 is located in the parking lot area and has PCE concentrations with mild rebound after SVETS shutdown but remained below the SGCL. This probe is monitored at 65 feet near the groundwater interface for potential partitioning between soil gas and groundwater, and there is no evidence of that.
- Amber Sellinger with the CCRWQCB asked if Sites 2/12 wells will be decommissioned or if they will be sampled by PFAS due to the wastewater treatment plant at Site 2. It was noted that there are no near term plans to decommission wells, and sampling of these wells for PFAS can be evaluated by the PFAS Working Group.
- Karyn Steckling with the CCRWQCB asked about the operational decision for the SVETS based on SG-12-04 soil gas concentrations, since in 2020-2022 there was an increase above SGCL but the SVETS remained offline. It was noted that at that time there was a rebound study occurring at Sites 2/12 and there was no observable increases in groundwater COC concentrations during that period. Currently, if there is a soil gas COC above the SGCL, the SVETS will be operated.

7. 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:

- Key events were discussed for January through April and upcoming events as listed in the handout.
- The First Quarter 2024 GWMP data were discussed:
 - The maximum COC concentrations over the past year were compared to ACLs as ratios in Tables 1 through 3.
 - The A-Aquifer had two COCs above ACLs: carbon tetrachloride (CT) and VC. VC was not detected in the First Quarter 2024, comparable to historical results.
 - The trend chart for the past couple of years shows ratios of COC concentrations have decreased since the Fourth Quarter 2022.
- The First Quarter 2024 A-Aquifer CT plume map was shared. There was an increase in the CT plume size in Hydraulic Zone 5 in the City of Marina.
 - The First Quarter 2024 GWMP event shallow CT concentration results in the A-Aquifer Hydraulic Zone 5 wells in the City of Marina were discussed. Two wells in Hydraulic Zone 5 had their shallow station CT concentrations below the ACL at MW-BW-74-A and MW-BW-80-A. Due to increasing concentrations, three annual wells in Hydraulic Zone 5 were increased in frequency to quarterly monitoring.
 - MW-BW-49-A is the oldest well in the Hydraulic Zone 5 area. The deeper sample station has been above the CT ACL for the past two quarters, but the shallow station remains below the ACL.

- MW-BW-80-A is located in the middle of the plume in Hydraulic Zone 5 and had an increase in CT concentrations above the ACL in the First Quarter 2024. The groundwater elevation has been decreasing the past two quarters, indicating an inverse relationship.
- The three new wells in Hydraulic Zone 2 were discussed.
 - MW-BW-102-A and MW-BW-103-A had concentrations of VC above the ACL in the Fourth Quarter 2023. There is no indication of an upgradient source of VC or COCs that would degrade into VC. VC concentrations were not detected in the First Quarter 2024, indicating possible desorbing of VC from the polyvinyl chloride (PVC) well construction material, which had a temporary short-term effect.
 - MW-BW-101-A and MW-BW-102-A had concentrations of CT above the ACL in the Fourth Quarter 2023 and First Quarter 2024. Downgradient well MW-40A-02-A installed as part of the PFAS Site Inspection was sampled for OUCTP A-Aquifer COCs in the First Quarter 2024, and CT was not detected.
- The First Quarter 2024 Upper 180-Foot Aquifer CT plume map was shared. The northern CT plume was removed. MP-BW-46-170 CT concentrations had been above the ACL since it was installed in 2003, but CT was not detected in the First Quarter 2024. Groundwater elevations and CT concentrations are showing a seasonal trend.
- The First Quarter 2024 Lower 180-Foot Aquifer CT plume map was shared. There was no significant change in the plume.
 - MW-BW-04-180 has been above the CT ACL for the past few quarters. Groundwater elevations follow a similar pattern as CT concentrations at this well and is a seasonal trend.
 - Upgradient multi-port well MP-BW-49-316 CT trend chart shows concentrations above the ACL since it was installed in 2011, with a seasonal trend in CT concentrations and groundwater elevations.
 - MW-BW-59-180 has TCE concentrations above the Maximum Contaminant Level (MCL). TCE and groundwater elevation have a seasonal trend.

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.

- A chart with First Quarter 2024 TCE data for the Lower 180-Foot Aquifer was provided in the OUCTP handout in agenda item 7a.
- The trends for wells MW-OU2-28-180, MW-OU2-62-180, and MW-BW-59-180 were discussed. Only MW-BW-59-180 is above the TCE MCL. The First Quarter 2024 concentrations are either stable or decreasing for these wells.
- The Army is preparing an explanation of significant differences (ESD) that will add TCE as a COC in the Lower 180-Foot Aquifer and the draft will be issued by the end of the year.

8. Per- and Polyfluoroalkyl Substances (PFAS)

The handout titled “Per- and Polyfluoroalkyl Substances (PFAS) Preliminary Assessment” was reviewed. Additional discussion included:

- The Fort Ord PFAS Working Group meetings will start this summer.
- PFAS Working Group discussions will include addressing Site Inspection (SI) Narrative Report comments.
- Maeve Clancy with the USEPA noted that the USEPA issued maximum contaminant levels (MCLs) for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS will be designated as hazardous substances by the USEPA in the near future.

9. 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 will be issued shortly.

b. Lead Evaluation at HA 18D and HA 23D – The Army is preparing an ESD for Site 39 that would identify a lead cleanup value for soil for a residential use scenario with a regional screening level (RSL) of 200 mg/kg for lead. The ESD is expected to be issued draft by the end of the year.

10. 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 “Former Fort Ord Document Schedule” was reviewed, and near-term documents were identified. The document schedule was organized in a more user-friendly way. The top blue section lists documents being currently reviewed by the regulatory agencies and public entities. The green section lists upcoming documents. The gray section lists recently completed documents.

Proposed changes to HTW documents were sent to the regulatory agencies and discussed. The QAPPs are proposed to be combined into a Basewide QAPP to be revised every five years. Work Plans will be streamlined and reference the QAPP. Quarterly reports will be reduced and discussed at BCT meetings. Annual reports will be staggered so all three are not issued at once. Completion reports will be appended to the Annual Reports. Comments are expected to be received in early June from the regulatory agencies.

- Karyn Steckling with the CCRWQCB likes the idea of staggering the annual reports and the Basewide QAPP. Karyn is wondering if the standalone completion reports would be better than appended ones.
- Amber Sellinger with the CCRWQCB liked the document streamlining ideas. A week to review community response to comments is ok.
- Maeve Clancy with the USEPA noted she will run this through the USEPA attorney, but liked the ideas as long as they conform to the FFA.
- It was requested to have a Fort Ord Data Integration System (FODIS) tutorial for new project personnel.

11. Action Items

The handout titled “HTW BCT 2024 Action Items” was reviewed.

- Action Item #1 is still in progress and was discussed in agenda item 9b.
- Action Item #2 is still in progress and was discussed in agenda item 7b.
- Action Item #3 is still in progress and was discussed in agenda item 5b.
- Action Item #4 is still in progress and was discussed in agenda item 8.
- Action Item #5 was discussed. Maeve Clancy with the USEPA noted there is a PFAS sampling method study ongoing at Castle Air Force Base, but the status is not known. With the USEPA personnel re-organization, it may take a little time to get more information. Maeve will bring any information she has to the future PFAS Working Group meetings.

12. Calendar Update

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

- Guided Nature Walk: May 11
- HTW BCT: July 12 at 10:00 am
- CIW: July 13 in person with bus tours
- TRC: July 16
- HTW BCT: September 19 at 10:00 am
- Amber Sellinger with CCRWQCB requested to receive BCT handouts 48 hours before the meeting, and a minimum of 24 hours prior to the meeting.
- PFAS Working Group meetings will begin in the summer and be held in alternating months from the HTW BCT meetings.

HTW Governing Document References

The latest QAPPs in use and decision documents, including Records of Decision (RODs) and Explanations of Significant Differences (ESDs) are listed below. These are typically final documents not currently being reviewed. These documents can be used as references for site COCs, ACLs, monitoring, remedies, and project decision criteria.

- **Current QAPPs:**
 - Landfill Gas Revision 7: Final AR# [OU2-702S](#) (May 2023).
 - Soil Gas Revision 8: Final AR# [BW-2792V](#) (August 2023).
 - Groundwater Revision 11: Final AR# [BW-2785V](#) (November 2023).
- **Decision Documents:**
 - OU2:
 - ROD: AR# [OU2-480](#) (1994).
 - ESD No. 1: AR# [OU2-406](#) (1995).
 - ESD No. 2: AR# [OU2-458](#) (1996).
 - ESD No. 3: AR# [OU2-523](#) (1997).
 - ESD No. 4: AR# [OU2-656](#) (2006).
 - Sites 2/12:
 - ROD: AR# [RI-025](#) (1997).
 - ESD: AR# [BW-2794](#) (2016).
 - OUCTP:
 - ROD: AR# [OUCTP-0021D](#) (2007).
 - No ESDs.
 - Site 39:
 - Amendment to the Basewide ROD: AR# [RI-041E](#) (2009).
 - No ESDs.