



**Final
HTW BCT
Meeting Minutes
February 11, 2022**
BRAC Conference Room
Former Fort Ord, California
And Teleconference Meeting



Agenda

Reference the handout titled "HTW BRAC Cleanup Team Meeting Agenda, Friday, February 11, 2022, at 1:30 PM, Former Fort Ord, California."

1. Attendance and Announcements

Last Name	First Name	Organization	By Phone
Anderson	Thor	Burleson Consulting	x
Cervantes	Christina	Chenega for BRAC	
Clancy	Maeve	U.S. Environmental Protection Agency (USEPA)	x
Collins	Bill	U.S. Army BRAC, Fort Ord Office	
Dillon	Holly	Ahtna Global, LLC (Ahtna)	x
Floyd	Bridget	U.S. Army Corps of Engineers (USACE)	x
Gettmann	Kimberly	California Department of Toxic Substances Control (DTSC)	x
Hession	Shaelyn	Ahtna	x
Hibbits	Betsy	Chenega for BRAC	
Higgins	Jolie	USACE	x
Kochman	Aaron	Chenega for BRAC	x
Kosowski	Sylvester	Ahtna	x
Kowalski	Bart	Chenega for BRAC	x
Lieberman	Derek	Ahtna	
Lindh	Margaret	Ahtna	x
No	Jason	Chenega for BRAC	
Schmidt	Eric	Ahtna	x
Sellinger	Amber	California Regional Water Quality Control Board, Central Coast Region (CCRWQCB)	x
Soderberg	Sheila	CCRWQCB	x
Walak	Kelsey	USACE	x

2. BCT Minutes Status

HTW BCT meeting minutes are final through the last meeting in November 2021.

3. Community Outreach Update

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

- The Community Involvement Workshop scheduled for February 12 is now online with pre-recorded presentations. The webpage was advertised through e-mail, snail mail, and newspaper ads. The presentations will be live today and available through March 14.
- Community comments from the Fort Ord Community Advisory Group were received on the Draft Preliminary Assessment Narrative Report. The responses to comments will be issued in the Draft Final report.

4. 5th Five-Year Review

There was no handout for the 5th Five-Year Review. Discussion included:

- Comments were received on the draft document from BRAC Headquarters and Environmental Law Division (ELD).
- The draft document for regulatory agency review is expected to be issued by April 4 or earlier.

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 in December 2021 and January 2022 with a flow rate above 900 gallons per minute (gpm). Cumulatively the OU2 GWTP has treated 8.9 billion gallons of water and removed 931 pounds of chemicals of concern (COCs).
- Table 2 shows the OU2 GWTP injection point of compliance was sampled in January. A few COCs were detected at concentration levels well below their discharge limits.
- Key events were discussed for December 2021, January 2022, and upcoming events.
 - Groundwater modeling results indicated extraction well EW-OU2-08-180 could capture a portion of the trichloroethene (TCE) plume east of EW-OU2-05-180 and EW-OU2-06-180. Operation of EW-OU2-08-180 was tested in January. Having completed successful operations testing this week, EW-OU2-08-180 has been continuously online since February 7.
 - The Sea Haven construction project activities temporarily lost groundwater monitoring well MW-OU2-07-400. The well was recovered and redeveloped. Surface completions and surveying was completed for monitoring wells MW-OU2-07-A and MW-OU2-07-400 last week.
- Fourth Quarter 2021 validated OU2 groundwater results were discussed. The report will be issued this month.
 - Most of the A-Aquifer results were similar to the previous sampled event including the three extraction wells with failed pumps that were replaced and inaccessible Sea Haven area monitoring wells in the annual Third Quarter 2021 event.
 - There were a couple of wells with decreasing TCE concentrations below the aquifer cleanup level (ACL) in the eastern extraction well network Hydraulic Zone 3 (EW-OU2-12-A and EW-OU2-13-A).
 - There was an increase in concentrations at a few wells including:
 - TCE concentration at western network well MW-OU2-40-A in Hydraulic Zone 4, which is similar to an increase a few years ago.
 - Tetrachloroethene (PCE) concentration at MW-OU2-06-AR in Hydraulic Zone 5 above the ACL, which is similar to the previous year.
 - MW-OU2-07-A in Hydraulic Zone 5 was inaccessible due to construction activities since the Fourth Quarter 2020, but in the Fourth Quarter 2021 concentrations were similar to the previous sampled event.

- MW-OU2-08-A located upgradient of MW-OU2-07-A in Hydraulic Zone 5 had had continuing increasing concentrations, but within the range of historical concentrations.
- MW-OU2-75-A in Hydraulic Zone 5 had consistent concentrations compared to the previous event.
- Due to increasing COC concentrations in Hydraulic Zone 5, a couple of wells were added back into the groundwater monitoring program. MW-OU2-76-A and MW-BW-71-A were profiled in the Fourth Quarter 2021 with results below ACLs or non-detect (ND). The two added wells are identified in the Fourth Quarter 2021 COC concentration plume map north and east of Hydraulic Zone 5.
- OU2 Upper 180-Foot Aquifer Fourth Quarter 2021 validated TCE concentrations were similar to previous events. There were a couple of differences noted:
 - MW-OU2-50-180 in the southern TCE lobe of the plume had an increase in TCE concentrations.
 - EW-OU2-01-180 in the northern TCE lobe of the plume had an increase in TCE concentrations.
 - The Fourth Quarter 2021 TCE plume concentration map shows the TCE plume that is east of EW-OU2-05-180 and EW-OU2-06-180 in Hydraulic Zone 8 partially captured by online extraction well EW-OU2-08-180.
 - MW-OU2-28-180 is located on the east side of Hydraulic Zone 8 and has had an overall increasing TCE trend. During the Fourth Quarter 2021 event, the TCE concentration decreased; however, it is part of the normal seasonal cycle.
 - MW-OU2-62-180 is located upgradient of MW-OU2-28-180 in Hydraulic Zone 8 and still has TCE concentrations below the ACL.

b. Treated Water Reuse – The handout titled “Operable Unit 2 Treated Water Reuse” was reviewed.

Additional discussion included:

- Since the last HTW BCT meeting there were 1,050 gallons of treated water used. Treated water was used at the OU2 Landfills in November (500 gallons) and in December (550 gallons).
- The total treated water used since October 2016 is 4,342,550 gallons.
- Shea Homes and their subcontractor Teichert want to use treated water at southwest injection. A Work Plan was in progress. California State University Monterey Bay (CSUMB) owns the property where the treated water would be collected. CSUMB is ok with access to the site and a pipeline going across the property but does not want a Klein tank on the property.

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:

- Thermal treatment unit (TTU) annual maintenance and inspection was completed in December and it was observed that the rupture disc needs to be replaced. The replacement rupture disc was installed this week and the TTU will be operated next week before the First Quarter 2022 perimeter probe monitoring event scheduled for February 21.
- Due to no recent precipitation, there has been no erosion issues at the OU2 Landfills.
- A quarterly inspection will be conducted this quarter with the Monterey County Health Department.
- Since the TTU has been offline since the beginning of December, there are no operational updates.
- A picture was included on the handout of a bobcat at the OU2 Landfills. Several bobcats have been identified at the OU2 Landfills and they help with control of squirrels.

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

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

- Table 1 shows that the Sites 2/12 GWTP was online 100% of the time in December 2021 and January 2022 at approximately 140 gpm.
- Table 2 shows the Site 2 injection point of compliance was sampled in January with a couple COCs detected at concentrations well below the discharge limits.
- The Soil Vapor Treatment Unit (SVTU) remains offline.
- Key events were discussed for December 2021, January 2022, and upcoming events.
 - Decommissioning of two extraction wells, EW-12-04-180U and EW-12-04-180M, will be conducted by Shea Homes or Monterey Motorsports in the future due to planned development activities. These wells were removed from the groundwater monitoring program and are recommended for decommissioning in the 2021 Annual Report.
 - Decommissioning of one soil gas probe cluster, SG-12-18, will be conducted by Shea Homes or a brewery company called The Brass Tap in the future due to planned development activities. The last time soil gas concentration were above the soil gas cleanup level (SGCL) was in 2013 and the last time the probe was sampled was in 2020. SG-12-18 was removed from the soil gas monitoring program and recommended for decommissioning in the 2021 Annual Report.
- The Fourth Quarter 2021 groundwater validated results were discussed.
 - TCE groundwater data for the Fourth Quarter 2021 are still below the ACL.
 - An additional sample was collected in January at EW-12-08-180U, which will be reported in the First Quarter 2022 report.
 - PCE groundwater data for the Fourth Quarter 2021 are back below the ACL for all wells including EW-12-08-180U. The January sample had a slight increase in PCE concentrations at EW-12-08-180U but was still below the ACL.
 - The Fourth Quarter 2021 groundwater COC concentration figure shows there is no plume above the ACL.
 - The trend chart for EW-12-08-180U shows a decreasing trend in PCE concentrations which is below the ACL.
- Soil gas data was presented from First Quarter 2020 through Fourth Quarter 2021 through the period of the rebound study.
 - There are higher concentrations of TCE in the soil gas probe cluster SG-12-04, but recently there appears to be a stabilization in the concentrations. This will be sampled again in the First Quarter 2022 soil gas monitoring event scheduled for next week.
 - The Fourth Quarter 2022 soil gas map was presented and the report will be issued next week.
 - SG-12-02 probe cluster is located adjacent to Target on the north side of the stormwater infiltration basin and not influenced by the SVTU. The PCE trend chart shows declining trend and natural attenuation.
 - SG-12-04 probe cluster PCE trend chart shows minor increase in concentrations after the SVTU was shut down, but still below the SGCL.
 - SG-12-04 probe cluster TCE trend chart shows rebound in concentrations above the SGCL after the SVTU was shut down. However, in at least a couple of the probes during the past couple sampling events, it appears that TCE concentrations are leveling off. The probe cluster will continue to be monitored. The concentrations are not as high as historic concentrations during the Remedial Investigation in 2013.

- SG-12-06 probe cluster is south of SG-12-04. The PCE trend has been below the SGCL for a while and continues to be below the SGCL after the SVTU was shut down.

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:

- The Fourth Quarter 2021 groundwater validated data was discussed.
 - Groundwater data was similar to previous events with some slight variations.
 - There is a carbon tetrachloride (CT) concentration trend chart for MW-BW-26-A located in OUCTP Hydraulic Zone 4 in Enhanced In Situ Bioremediation (EISB) Deployment Area 2A south of Reservation Road. After EISB remediation, CT concentrations decreased close to the ACL. But afterwards, CT concentrations increased and peaked at 7 micrograms per liter (µg/L). Over the last four quarters of monitoring there is a decreasing trend, but CT is still above the ACL. Some neighboring monitoring wells were added back into the groundwater monitoring program due to increasing concentrations at MW-BW-26-A. Downgradient well MW-BW-30-A is ND and sampled annually.
 - There is a CT and chloroform concentrations trend chart for MW-BW-36-A located in Hydraulic Zone 4. CT concentrations are below the ACL recently and chloroform is also below the ACL, which were previously both above the ACLs. Chloroform is a natural byproduct of biodegradation of CT.
 - There is a CT concentration trend chart for MW-BW-75-A located in Hydraulic Zone 5 downgradient of EISB Pilot Study area. During the last event in the Fourth Quarter 2021 there were two sample stations. The shallow station had a CT concentration below the ACL and the deeper station had a CT concentration above the ACL. Historically, there was a second bag at the shallow station as shown in the trend chart.
 - There is a CT concentration trend chart for MW-BW-80-A located in Hydraulic Zone 5 downgradient of EISB Pilot Study area. CT concentrations have been above the ACL since 2019 with an increasing trend recently. The second shallow station passive diffusion bag sampler had a higher CT concentration. Historically, there was a second bag at the shallow station as shown in the trend chart.
 - There is a concentration trend chart for MP-BW-46-170 located in the Upper 180-Foot Aquifer Hydraulic Zone 6. There was a slight decrease in CT concentration in the Fourth Quarter 2021, but still well above the ACL. CT concentrations have consistently been above the ACL since monitoring began in 2003 with a seasonal cycle typical of the Upper and Lower-180 Foot Aquifers.
 - Downgradient Upper 180-Foot Aquifer monitoring well MW-OU2-64-180 had a decline in CT concentration during the Fourth Quarter 2021 event. Mid-plume wells MW-BW-52-180 and MW-BW-57-180 had CT concentrations below the ACL.
 - CT in the Lower 180-Foot Aquifer had lower concentrations in the Fourth Quarter 2021.
 - There is a CT concentration trend chart for MP-BW-49-316 located in the Lower 180-Foot Aquifer Hydraulic Zone 7. CT has consistently been above the ACL since monitoring began in 2011. During the last three quarters CT concentrations have decreased, but still above the ACL.
 - Fourth Quarter 2021 CT concentration maps were presented. Hydraulic zones represent historical extents of the plume. The report will be issued next week.
- The downgradient extent of the CT A-Aquifer plume in Hydraulic Zone 5 EISB Pilot Study area and City of Marina area was shown with updated Fourth Quarter 2021 results.

- Elevated CT concentrations at downgradient wells lead to additional sampling of shallow stations in the Fourth Quarter 2021.
- Additional shallow station samples will be collected in the First Quarter 2022 sampling event and this information will be updated when that data is available. All wells in Hydraulic Zone 5 with CT above the ACL will have a second shallow station sample.
- A CT trend chart was presented for shallow stations at Hydraulic Zone 5. All shallow stations have been below the ACL recently with the exception of MW-BW-80-A. The trend chart was updated to show when the Remedial Investigation/Feasibility Study (RI/FS) was conducted in September 2004 at the monitoring well that was present in Hydraulic Zone 5 at the time, MW-BW-49-A. Recent CT concentrations at MW-BW-80-A are similar to those used during the RI/FS which determined there was no vapor intrusion risk.
- The next CT trend charts show individual sampling station results at MW-BW-49-A, MW-BW-75-A, and MW-BW-80-A.
 - After the RI/FS study conducted in 2004 CT concentrations continued to be monitored at the shallow stations in MW-BW-49-A, which continued to decline after the EISB Pilot Study was completed upgradient in 2008. After the CT concentrations decreased below the ACL at MW-BW-49-A, deeper stations were monitored and are currently below the ACL.
 - MW-BW-75-A trend chart shallow bag was added and below the ACL, the deeper station remains above the ACL during the Fourth Quarter 2021 event, but within the historical CT concentration range.
 - MW-BW-80-A shallow station #1 sampled during the Fourth Quarter 2021 event was higher than but similar to the CT concentration at the adjacent deeper sample station #2 which has been sampled consistently and showing an increasing trend.
- Vapor intrusion will not be discussed in the upcoming OUCTP quarterly report since it has not been identified as necessary based on current data and the Human Health Risk Assessment conducted as part of the RI/FS for OUCTP.

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 to the downgradient drinking water supply wells.

- TCE in the Lower 180-Foot Aquifer is being addressed in the Five-Year Review. MP-BW-49-400 has been below the TCE maximum contaminant level (MCL) since the Second Quarter 2021. MW-BW-59-180 has consistent TCE concentrations around 10 µg/L. MW-OU2-82-180 decreased below the TCE MCL.
- There is a trend concentration chart for TCE at Upper 180-Foot and Lower 180-Foot Aquifer wells upgradient and downgradient of the suspected discontinuity in the Intermediate 180-Foot Aquitard where TCE may be migrating from the Upper to the Lower 180-Foot Aquifer. MW-OU2-28-180 continues to have increasing TCE concentrations over the long-term with a seasonal cycle.

8. Per- and Polyfluoroalkyl Substances (PFAS)

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

- The PFAS Preliminary Assessment (PA)/Site Inspection (SI) key events were discussed.

- The PA Narrative Report comments were all received on the Draft report. Responses to comments (RTCs) are in progress. The Draft Final report will be issued once they are resolved.
- The SI Work Plan Quality Assurance Project Plan (QAPP) was issued internally for Army review and comments were received. RTCs are in progress. The Draft report will be issued once they are resolved.
- Project Planning Meeting #2 will occur after the Draft SI Work Plan QAPP is reviewed by the regulatory agencies.
- The PA Narrative Report Draft comments were summarized.
 - Regulatory agencies requested that sites be added to the tertiary assessment in addition to the six sites that were already included. In general, it was thought that the sewage treatment plants, Range 36A, Site 12 and Site 16 (where firefighting trucks may have been serviced), East Garrison areas (where transformer oil might have been dumped), and fire houses ought to be added.
 - Regulatory agencies requested that there be more analysis in the secondary assessment at some sites. This includes Range 36A to assess whether munitions containing magnesium/Teflon/Viton (MTV) may have been used, the Molotov Cocktail Range, Flame Field Expedients Training Area, Site 12 DOL Automotive Yard, Site 34 aircraft hangars where an aqueous film-forming foam (AFFF) release was suspected but no evidence was found, Fort Ord Soil Treatment Area where Total Petroleum Hydrocarbons (TPH) were found in the soil, Main Garrison Fire Station, suspected aircraft crash site at Mudhen Lake, and Range 34 to assess whether munitions containing MTV may have been used.
 - Regulatory agencies requested more sampling for the tertiary assessment than what is currently recommended at the six sites. The PA Narrative Report was light on details of the sampling program by design since that is described in the SI Work Plan/QAPP in detail.
 - There was one comment about adding to the SI secondary areas of concern such as drainage ditches and outfalls, and groundwater seepage areas. This is considered to be outside the scope of the SI.
 - RTCs are expected to be issued in the next few weeks.

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 was reviewed by the BRAC Office and edits are being made based on the comments. The BRA process for Unit 5 will be conducted in the upcoming months. The Final report will be issued in the next few weeks.

b. Lead Evaluation at HA 18D and HA 23D –

The Army was directed by BRAC Headquarters to proceed with the 200 milligrams per kilogram (mg/kg) lead soil screening level. At that time the USEPA and DTSC wanted to discuss this recommendation before an Explanation of Significant Differences (ESD) was developed. There was no update on communication within and between the regulatory agencies and nothing new to report. The Army may proceed with the ESD as a starting point for discussion.

Site 33 was discussed as an additional topic. Site 33 was a former pesticide storage facility at the golf course in the former Fort Ord and the remedy selected in the Basewide Remedial Investigation Sites

Record of Decision (ROD) was a land use control restricting residential use. Since then, the property owner worked towards removing the restriction from the Federal deed with excavation and remediation to residential use levels. The Covenant to Restrict Use (CRUP) was terminated, but the restriction still needs to be removed from the Federal deed. A post-ROD change may need to be conducted to make sure everything is in order. Further discussion will occur between the regulatory agencies to determine the next step forward.

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

- The Annual Habitat Restoration Report is in progress.
- The Annual Habitat and Biological Monitoring Meeting on April 7 will be presenting the 2021 activities and overall restoration progress.
- Field crews have been working on erosion control doing some production seed broadcast. Historic Area (HA) 26 was completed in December. Activities are approved at five more HAs but are on hold to prioritize planting.
- Planting season began in mid-December and was completed on February 7. A total of 3,677 plants were targeted to be installed at eight different HAs. Approximately 4,000 plants were installed, so there were a few extra compared to the target.
- This is the third year of irrigation for HA 26. A total of 3,500 plants are being irrigated with four gallons of water per plant per event (total of 14,000 gallons) with five events total. The first irrigation event was conducted June 8-11. The second event occurred July 6-9 with 14,000 gallons. The third event occurred August 9-12 with 14,000 gallons. The fourth event occurred September 13-16 with 14,000 gallons. One more event will occur, and since there was no rain in the month of January, the fifth and final event occurred January 31-February 3 with 14,000 gallons at 3,500 plants. The irrigation system is currently being dismantled.
- The virtual CIW includes a presentation of the restoration progress including a fixed photo point over the past five years.

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. The upcoming Fifth Five-Year Review Report would be the next and only primary document and is listed on the document schedule, with the Draft being issued in April 2022 and signature needed by September 2022.

b. Document Schedule – The handout titled “11 February 2022 BCT Deliverable Schedule” was reviewed, and near-term documents were identified.

- There are a number of documents in the draft version and under review by the regulatory agencies:
 - Sites 2/12 Closure Exit Strategy
 - Groundwater QAPP
 - Landfills QAPP
 - Sites 2/12 Third Quarter 2021 Annual Report
 - OU2 Third Quarter 2021 Annual Report
 - OU2TP Third Quarter 2021 Annual Report
- Upcoming documents include:
 - OU2 GWTS Operations and Maintenance Manual scheduled to be issued draft in March.
 - The Sites 2/12 Soil Gas Rebound Study Technical Memorandum scheduled to be issued draft final in March.

- Soil Gas QAPP scheduled to be issued draft this month.
- The PFAS PA Narrative Report scheduled to be issued draft final this month.
- The PFAS SI Work Plan/QAPP scheduled to be issued draft this month. This schedule may slip due to RTCs being resolved on the PFAS PA Narrative Report.
- The Comprehensive BRA report scheduled to be issued final in March.
- The 5th Five-Year Review Report is on a strict schedule to be signed by September. The draft is scheduled to be issued in early April. If there are any comment extensions, then the September deadline won't be met. The RWQCB will have to see what other reports are in review at the time and request comment deadlines are spaced apart if a lot of reports are coming soon. The schedules of other documents don't appear to overlap at the time except for Draft Final Annual Reports. The USEPA Headquarters review extent can vary but they can be given a heads up of the timeline.

11. Action Items

The handout titled "HTW BCT 2021 Action Items" was reviewed.

- Action Item #1: The lead cleanup level status was discussed in agenda item 9.
- Action Item #2: The Five-Year Review will discuss TCE in the Lower 180-Foot Aquifer. The current recommendation is to add the Lower 180-Foot Aquifer to OU2 via a decision document. The draft version of the Five-Year Review is expected to be issued in early April.
- Action Item #3: Discussion about the scope of the SI Work Plan/QAPP based on USEPA comments at the November BCT meeting was conducted in agenda item 8.

12. Calendar Update

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

- The CIW will be held remotely starting on February 12, 2022. Recorded presentations will be added to the cleanup website which discuss soil and groundwater cleanup and restoration activities.
- The TRC meeting is scheduled for February 15, 2022 to discuss soil and groundwater cleanup.
- There will be a MCWD brief PFAS presentation on February 22, 2022 at 6:30 pm.
- The Annual Habitat Meeting is scheduled for April 7, 2022.
- The next HTW BCT is scheduled for May 13, 2022 at 1:30 pm. A BCT meeting may be scheduled before this date if it is needed.
- The Guided Nature Walk is scheduled for May 14, 2022.