Final
HTW BCT
Meeting Minutes
July 14, 2021

BRAC Conference Room
Former Fort Ord, California
And Teleconference Meeting

Agenda

Reference the handout titled "HTW BRAC Cleanup Team Meeting Agenda, Wednesday, July 14, 2021, at 1:30 PM, Former Fort Ord, California."

1. Attendance and Announcements

Last Name	First Name	Organization	By Phone
Anderson	Thor	Burleson Consulting	x
Balch	Duane	U.S. Army Corps of Engineers (USACE)	x
Bleichner	Randall	California Department of Toxic Substances Control (DTSC)	x
Broadston	Melissa	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	USACE	
Gentry	Dana	USACE	x
Hession	Shaelyn	Ahtna	x
Hibbits	Betsy	Chenega for BRAC	
Higgins	Jolie	USACE	
Kochman	Aaron	Chenega for BRAC	x
Kosowski	Sylvester	Ahtna	x
Kowalski	Bart	Chenega for BRAC	x
Leary	Brett	DTSC	x
Lieberman	Derek	Ahtna	
Lindh	Margaret	Ahtna	x
Nozaki	Chieko	Chenega for BRAC	
Payton	Curtis	USACE	x
Sellinger	Amber	California Regional Water Quality Control Board, Central Coast Region (CCRWQCB)	x
Soderberg	Sheila	CCRWQCB	x
Stiebel	Cary	Chenega for BRAC	x
Valdez	Val	Chenega for BRAC	x
Wu	Min	DTSC	x

2. BCT Minutes Status

HTW BCT meeting minutes are final through the last meeting in April.

3. Community Outreach Update

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

- The 2021 community outreach survey was launched in May online and in the mail. The survey is conducted every two years due to ongoing cleanup activities to meet requirements for community outreach. A total of 67 surveys were filled out online and 26 surveys were received by mail. A newspaper article was published in the Monterey Weekly asking people to hand in the survey. More surveys were handed in via e-mail this year.
- The Army responded to several community comments.
- In May, the USEPA published the National Priorities List (NPL) Partial Deletion.
- The Technical Review Committee (TRC) teleconference meeting on July 20 will cover munitions cleanup, land use controls, and prescribed burns (none planned this year).
- In August, some activities are planned for the Five-Year Review including sending out surveys, fact sheets, and questionnaires.
- A York School munitions safety briefing will be conducted in August on the first Friday of school.
- A presentation and tour will be held for the Naval Postgraduate School.
- In September, the BRAC office is on a waiting list for a booth at the Monterey County Fair.
- A Nature Walk community event is scheduled for Saturday, September 18.
- In 2020, Fort Ord was selected to receive USEPA's Federal Facility Excellence in Site Reuse award. USEPA plans an event in September to present certificates to key stakeholders.
- The Community Involvement Workshop (CIW) and TRC will be scheduled for February 2022.
- The Fort Ord Community Advisory Group (FOCAG) submitted comments on the Operable Unit 2 (OU2) Groundwater Treatment System (GWTS) Optimization and Evaluation Report and responses to comments are in progress.

4. 5th Five-Year Review

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

- The draft Fact Sheet, table of contents, and schedule have been provided to BCT members for review.
- There will be a meeting today July 14 after the HTW BCT meeting with further details.

5. Operable Unit 2 (OU2)

a. Groundwater Remedy/Monitoring –

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

- OU2 groundwater treatment plant (GWTP) data for April through June was discussed:
    - Table 1 shows that the OU2 GWTP was online 100 percent (%) of the time. Operational flow rate continued to increase from April through June.
    - Table 2 has analytical results for the OU2 GWTP injection point of compliance samples collected April through June. Concentrations of chemicals of concern (COCs) were either not detected or below the discharge limit. A few low carbon-affinity COCs were detected at as expected.
- Key Events were discussed for April through July:
    - On April 8, effluent pump P-1 failed pump/motor seals and bearings were replaced and the pump restarted operations.

  - On April 12 the Shea Homes contractor Teichert stopped taking treated water for their construction project. It may be used again in the future.
  - On April 14, the flow rates were increased at EW-OU2-03-180 and EW-OU2-09-180.
  - On April 20, well redevelopment was conducted at EW-OU2-12-180 and EW-OU2-12-A. EW-OU2-12-A was shock treated for evidence of biofouling and flow rate increased once restarted with original pump. EW-OU2-12-180 had failed drop-pipe equipment needing replacement and needed a new pump.
  - On May 11, EW-OU2-19-A went offline due to a failed pump motor.
  - On June 2, extraction well EW-OU2-17-A went offline due to a crack in the y-strainer in the vault. It was repaired and restarted on June 14.
  - On June 5, extraction well EW-OU2-20-A went offline due to a failed pump motor.
  - The Second Quarter 2021 groundwater monitoring event was conducted June 7-11. One well (MW-OU2-28-A) had a passive diffusion bag sampler out of the water, which was redeployed and was sampled on June 24.
  - From June 14 to 18, failed pumps were replaced at EW-OU2-02-A, EW-OU2-04-A, EW-OU2-10-180, and EW-OU2-12-180. Extraction well EW-OU2-10-180 was operated in hand mode until June 24, when it was able to operate in automatic mode after reprogramming. These wells were sampled for the Second Quarter 2021 event on June 28. A couple pictures were shared from the pump replacement.
  - On June 21, an electrical outage caused all Upper 180-Foot Aquifer extraction wells to go offline for three hours. The OU2 GWTP remained online in low flow conditions.
  - On June 22, extraction well EW-OU2-13-A went offline due to a broken pipe in the vault, which flooded the vault and caused the variable frequency drive (VFD) to fail. It was repaired and the well was back online on July 1.
  - From June 22 to 23, the RORE Innovative Solutions Joint Venture (JV) completed the work for OU2 GWTP relocation, including resolving issues at EW-OU2-02-180R and EW-OU2-06-A.
  - On June 24, extraction well EW-OU2-04-A went offline due to a broken pipe in the vault. It was repaired and back online on June 29. On June 30, EW-OU2-04-A went offline again due to high pressure. Troubleshooting is in progress.
- Upcoming events were discussed:
  - The annual Third Quarter 2021 groundwater monitoring event is scheduled for August 3 through September 3.
  - Replacement of failed pumps at EW-OU2-19-A and EW-OU2-20-A will be completed. Pressure issues at EW-OU2-04-A will be investigated and fixed to restart operations. There is no schedule yet for this work.
  - Sea Haven will complete surface adjustments and survey wells MW-OU2-04-A, MW-OU2-05-AR, MW-OU2-07-A, MW-OU2-07-400, and MW-OU2-84-180. There is no schedule yet for this work.
- Preliminary data was shared from the Second Quarter 2021 groundwater monitoring event:
  - A-Aquifer and Upper 180-Foot Aquifer results were similar to previous events.
  - The difference in COC concentrations at MW-OU2-12-A was due to a shallower sample depth in the Second Quarter event.
  - Data quality issues are being investigated by the lab from the First Quarter 2021 event. A large number of estimated high bias (J+) results in the First Quarter and the Second Quarter events caused vinyl chloride results to be non-detect in wells that were expected to have detections.

- A trendline shows that MW-OU2-06-AR COC concentrations are increasing overall. This well is located west of the eastern extraction well network and is captured by the western extraction well network.
- Similar increases in COCs are occurring northeast of the eastern extraction well network at MW-OU2-08-A and MW-OU2-75-A.
- MW-OU2-62-180, located east of the Landfills Area F, has had a trichloroethene (TCE) concentration below the aquifer cleanup level (ACL) recently.
- COC plume maps were provided from the First Quarter 2021 report.

b. Treated Water Reuse – The handout titled "Former Fort Ord Operable Unit 2 Treated Water Reuse" was reviewed. Additional discussion included:

- Treated water reuse gallons were corrected for January and February and are shown on the handout.
- In April, the treated water used for construction purposes stopped.
- No treated water was used in May.
- Approximately 2,500 gallons of treated water was used for landfill dust control during the Second Quarter 2021 groundwater monitoring event in June.
- The total treated water reused since October 2016 is 4,340,500 gallons.

c. Groundwater Treatment Plant Relocation – The JV completed work for EW-OU2-02-180R and EW-OU2-06-A. The relocation project is completed and the agenda item will be removed for the next HTW BCT meeting.

d. 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) operations are continuing.
- The annual engineering inspection is scheduled for August 6. The Engineer will look at the cover system and confirms it continues to function as designed and notes any repairs needed.
- Rodent trapping continues for squirrels and gophers in isolated areas. Raptor perches and owl boxes are still functioning to provide natural predation.
- In September, the Third Quarter 2021 perimeter probe monitoring and the quarterly County inspection will be conducted.
- Annual mowing will be conducted as needed based on inspection by Bart Kowalski in August. There was minimal precipitation and minimal vegetative growth this year, so mowing is expected to be minimal.
- In October, the annual owl nest box cleaning will be conducted.
- The source test in 2020 had an anomalous increase in VOC concentrations, and the recent source test in 2021 indicated VOC concentrations returned to a normal level consistent with historical results.
- The table on the handout shows TTU operational statistics since operations began in 2006, with a total of approximately 4,000 pounds of methane removed to date.
- The TTU influent methane concentration is stable at 36 percent, with an overall decreasing trend as expected.

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

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

- The Sites 2/12 handout covers activities for April through June. The Sites 2/12 GWTP was online over 96% of the time at 133 to 139 gallons per minute.
- Per the QAPP sampling schedule, no Site 2 injection point of compliance samples were collected in June due to the granular activated carbon (GAC) change-out in April.
- The Soil Vapor Treatment Unit (SVTU) remains offline.
- Key Events were discussed for April through July:
    - April 20 through 22, EW-12-08-180U was redeveloped and the original pump was replaced with an upsized pump. The extraction well was restarted, but the flow rate did not increase as much as expected and potential conveyance line restrictions will be investigated.
    - On April 27, a GAC change-out was conducted at the Sites 2/12 GWTP.
    - On May 13, the Sites 2/12 GWTP was offline for 24 hours for planned maintenance on the conveyance pipeline.
    - On May 17, the Second Quarter 2021 soil gas monitoring event was completed.
    - On June 21, an electrical outage shut down the Sites 2/12 GWTP for two hours. No equipment damage was observed upon restart.
    - The Second Quarter 2021 Groundwater Monitoring Event was conducted June 7-11.
- Upcoming events were discussed:
    - The conveyance pipeline for EW-12-08-180U will be investigated to determine if there is a blockage causing the lower than expected flow rate after the well was redeveloped and the pump size increased.
    - The annual Third Quarter 2021 soil gas monitoring event is scheduled for August 16 through 18.
    - The annual Third Quarter 2021 groundwater monitoring event is scheduled for August 30 through September 3. If all COCs are below their ACLs again, then the Sites 2/12 groundwater monitoring program will go into attainment monitoring.
    - Shea Homes will decommission EW-12-04-180M and EW-12-04-180U as recommended in the Annual Report due to planned construction in the area. No schedule has been provided for the work.
- Preliminary data was shared from the Second Quarter 2021 groundwater monitoring event:
    - There are no COCs above their ACLs for the first time at Sites 2/12 in groundwater.
    - For the first time the tetrachloroethene (PCE) concentration at EW-12-08-180U was below the ACL.
    - The only other well with a recent COC above the ACL was PCE at MW-12-20-180U in the Fourth Quarter 2019.
    - The First Quarter 2021 map was shared showing a small PCE plume, which will be gone for the Second Quarter 2021 map.
    - The concentration-time plot for EW-12-08-180U shows the decreasing PCE concentration trend.
    - EW-12-05-180M is the other operational extraction well that enhances capture of PCE by EW-12-08-180U. The concentration-time plot shows COCs have been below ACLs since 2015.
- Soil gas monitoring data was shared for the past six monitoring events including the recent Second Quarter 2021.

  - Soil gas probe cluster SG-12-04 at the 10- and 20-foot probes had increased TCE concentrations above the soil gas cleanup level (SGCL) in the First Quarter 2020 triggering the restart of the SVETS for the Second Quarter 2020 and has been offline since then. TCE concentrations at these same probes increased above the SGCL again in the Second Quarter 2021. The 65-foot probe had a concentration at the TCE SGCL in the Second Quarter 2021.
  - Time-concentration plots were shared for the samples soil gas probe clusters. The plot for SG-12-04 shows the rebound in 2020 and 2021.
- The soil gas remedy status was discussed:
  - The SVETS was offline since February 2019, except for Second Quarter 2020.
  - Since the SVETS has been offline there is evidence of rebound in soil gas, primarily TCE at shallow depths in SG-12-04.
  - There is evidence of partitioning between soil gas and groundwater, however, not at concentrations exceeding the groundwater ACLs nor soil gas SGCLs.
  - Groundwater PCE concentrations continue to decline at EW-12-08-180U even with the SVETS offline.
- Remedial action objective and cleanup strategy was discussed:
  - The Remedial Investigation (RI) Record of Decision (ROD) states to remediate the Sites 2/12 Upper 180-Foot Aquifer groundwater concentrations of volatile organic compounds (VOCs) to their maximum contaminant levels (MCLs) or more stringent levels for some VOCs, which is how the ACLs were developed.
  - The Explanation of Significant Differences (ESD) Number 1 states to return groundwater to condition of use and to return soil gas to a condition not contributing to increasing groundwater concentrations above ACLs.
  - According to the Groundwater Quality Assurance Project Plan (QAPP) Revision 8, if the extraction well is below the ACLs for two consecutive quarters it can be turned off. Therefore, if it is still below the ACL in the Third Quarter 2021 event, the Sites 2/12 GWTP can be shut down. The remediation monitoring phase of four consecutive events below COC ACLs is complete in all wells except EW-12-08-180U. The attainment monitoring phase includes making sure the future trends do not indicate an increasing trend above the ACL.
  - The Soil Gas QAPP was reviewed and no SVE wells are currently required to operate because there is no risk to groundwater. The TCE detected in soil gas probe cluster SG-12-04 shallow probes do not affect groundwater and the TCE detected in the deepest probe is not exceeding the SGCL.
  - The Groundwater QAPP states that the groundwater remediation is primary consideration for site closure.
  - The Exit Strategy document is in progress and will include the recommendations to leave the SVETS offline, keep the GWTS online until two quarters of all groundwater COCs below ACLs, and keep monitoring until all wells below ACLs for four events. At this point, attainment completion can be confirmed in a couple ways:
    - Non-statistical visual data confirmation of COCs below ACLs for eight consecutive events and stable or decreasing trend.
    - Statistical data analysis with Mann-Kendall trend analysis.
  - If attainment is complete, discontinue soil gas and groundwater monitoring at Sites 2/12 and propose site closure and decommissioning in a Remedial Action Completion Report.

7. Operable Unit Carbon Tetrachloride Plume (OUCTP)

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

- The Second Quarter 2021 Groundwater Monitoring Event was conducted June 7-11.
- The annual Third Quarter 2021 groundwater monitoring event is scheduled for August 3 through September 3.
- Preliminary data was shared from the Second Quarter 2021 groundwater monitoring event:
    - During the First Quarter 2021 event, similar to OU2, there were data quality issues being investigated by the lab resulting in some estimated high bias (J+) results. However, it did not affect overall usability of data with respect to project decisions.
    - The results were similar between events at all three aquifers at OUCTP.
    - MW-BW-26-A in Hydraulic Zone 4 in Enhanced In Situ Bioremediation (EISB) Deployment Area 2A CT concentrations increased after EISB deployment from 2011, remaining an order of magnitude above the CT ACL, but has been declining since 2019. Other wells in the area were added to the quarterly groundwater monitoring program: downgradient wells do not have elevated CT concentrations, but a couple adjacent wells do have CT above the ACL (EW-BW-129-A and EW-BW-140-A). There appears to be a stagnation zone in this area with persistent CT concentrations above the ACL.
    - The First Quarter 2021 CT A-Aquifer COC plume map was shared, with increasing CT in the downgradient extent of the plume. Additional monitoring wells are recommended in this area.
    - MW-BW-75-A in Hydraulic Zone 5 downgradient of the EISB Pilot Study in the City of Marina was below the CT ACL until a few years ago, with an increasing trend observed since 2016. It is suspected that CT "blobs" that were already past the Pilot Study area before EISB treatment are migrating through this area now.
    - MW-OU2-64-180 had a decline in CT concentrations in the Second Quarter, which is located near the discontinuity in the Intermediate 180-Foot Aquitard where CT is believed to be migrating from the Upper 180-Foot Aquifer to the Lower 180-Foot Aquifer. Additional groundwater extraction is recommended for this area.
    - MP-BW-46-170 is a Westbay port in the northern extent of the Upper 180-Foot Aquifer CT plume. This well has CT concentrations that are relatively stable since 2019.
    - MP-BW-49-316 is a Westbay port in the Lower 180-Foot Aquifer with an increasing CT concentration trend. The CT may be migrating into this area from the Upper 180-Foot Aquifer via the discontinuity in the Intermediate 180-Foot Aquitard. An additional Upper 180-Foot Aquifer extraction well in this area is recommended to block further migration.
    - Lower 180-Foot Aquifer well MW-BW-59-180 has a stable TCE concentration above the maximum contaminant level (MCL).

b. TCE in the Lower 180-Foot Aquifer – will be addressed in the 5th Five-Year Review Report.

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 public fact sheet has been on the Fort Ord Cleanup website since December 2020.
- The Preliminary Draft PFAS PA report was issued on June 15. The document is being reviewed internally by USACE, Army Environmental Law Division (ELD), and USACE Center of Expertise (CX).

- A meeting was held on June 22 to discuss the PFAS PA preliminary draft report recommendations including the Site Inspection (SI) QAPP data quality objectives (DQOs). The SI Work Plan/QAPP is in progress.
- A second project planning meeting will be conducted with the BCT prior to finalizing the SI Work Plan/QAPP to make sure everyone is in agreement on the DQOs.
- The handout shows the primary, secondary, and tertiary sites presented in the PFAS PA report.

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 is in progress and is scheduled to be final by the Fall.

b. Lead Evaluation at HA 18D and HA 23D –
HA-18D/23D risk assessments were completed using both blood lead levels recommended by USEPA and DTSC. The results and recommended approach by USACE Toxicologist will be sent to BRAC Headquarters for review.

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

- Plant propagation target for 2021/2022 is 3,677 plants for the eight HAs. The nursery is on track to hit all the species targets.
- Spring monitoring season began in April and was completed in June. All photo points, Habitat Management Plan (HMP) annual surveys, species richness, and native cover surveys are completed.
- Seed collection season is in progress. Five species have completed collection. Pictures were shared of raw collected seed. The seeds will be processed by cleaning them to get pure live seed weight.
- 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. Three more events will occur over the dry season. Last two years were 10 events, this year the plants have more water in fewer events and will be weaned so there will be no irrigation next 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. 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 March 2022 and signature needed by September 2022.

b. Document Schedule – The handout titled "14 July 2021 BCT Deliverable Schedule" was reviewed, and near-term documents were identified.

- There are a number of documents that are now final, including the Landfill QAPP, OUCTP Fourth Quarter 2020 report, OU2 Fourth Quarter 2020 report, Sites 2/12 Fourth Quarter 2020 report, OU2 First Quarter 2021 report, OUCTP First Quarter 2021 report, and Sites 2/12 First Quarter 2021 report.
- Comments were received on the OU2 GWTS Optimization and Evaluation Report.
- The Draft Final Soil Gas QAPP Revision 6 was issued today.

- The Draft Groundwater QAPP Revision 9 comments are requested by August 12.
- The Draft OU2 Fourth Quarter 2019 through Third Quarter 2020 Annual Report comments are requested by July 30.
- The RWQCB comments on the Draft OUCTP Fourth Quarter 2019 through Third Quarter 2020 Annual Report are expected by July 16.
- A few important documents are in progress and coming up soon including the Sites 2/12 Soil Gas Rebound Technical Memorandum, the Sites 2/12 Exit Strategy, and the PFAS Preliminary Assessment.
- A little later, the SI Work Plan/QAPP and the OU2 GWTS Operations and Maintenance (O&M) Manual revision will be issued.
- Min Wu with DTSC stated previously that he would like paper copies of reports sent to him, but a follow-up e-mail will confirm that.
- Maeve Clancy with the USEPA would like a CD of the final versions of the Groundwater QAPP Revision 8 and Landfill QAPP Revision 5. No rush, since she won't be in the office anytime soon.
- Maeve Clancy with the USEPA stated that the technical reviewer for the USEPA is changing back to the original person at Tech Law, Robert Young.

11. Action Items

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

- Action Item #1: This item was already discussed.
- Action Item #2: USACE Sacramento District will do the Five-Year Review, with Charity Meaks as the lead, and will discuss TCE in the Lower 180-Foot Aquifer.
- Action Item #3: The JV has completed the remaining extraction well work. This item will be removed.
- Action Item #4: Starting this month, the IPM and BCT meetings are returning to an in-person option and will continue to also have a teleconference option. Bridget will send an e-mail to the regulatory agencies to see if they want any hardcopies or CDs of the documents that were produced since the COVID-19 pandemic began in March 2020, which were provided in a list.

12. Calendar Update

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

- The TRC meeting will be virtual and will be held on July 20.
- The next HTW BCT is scheduled for September 17 at 1:30 pm prior to the Nature Walk on September 18.