



**Final
Hazardous and Toxic Waste (HTW) Base Realignment
and Closure (BRAC) Cleanup Team (BCT)**

Meeting Minutes

February 2, 2018

BRAC Conference Room
Former Fort Ord, California



Agenda

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- 3. Community Outreach Update**
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 - a. Remedial Action Completion Status Update
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 - b. Treated Water Reuse
 - c. Groundwater Treatment Plant Relocation
 - d. Landfills O&M
- 6. Sites 2 and 12**
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 - b. Soil Gas Monitoring
- 7. Operable Unit Carbon Tetrachloride Plume**
 - a. Groundwater Remedy/Monitoring
- 8. Basewide Range Assessment and Lead Evaluation Status**
 - a. Basewide Range Assessment
 - b. Lead Evaluation at HA 18D and HA 23D
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 - d. Habitat Restoration
- 9. FFA Schedule**
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- 10. Action Items**
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1. Attendance

Last Name	First Name	Company Name	By Phone
Anderson	Thor	Burleson Consulting	
Arsov	Vlado	California Department of Toxic Substances Control (DTSC)	
Broadston	Melissa	Chenega supporting BRAC	
Caruso	Erin	Gilbane	X
Collins	Bill	U.S. Army Base Realignment and Closure (BRAC), Fort Ord Office	X
Dillon	Holly	Ahtna Environmental, Inc. (Ahtna)	
Eisen	David	U.S. Army Corps of Engineers (USACE)	
Evans	Roy	HydroGeoLogic (HGL)	
Fenton	Jeff	Amec Foster Wheeler	X
Gettmann	Kimberly	DTSC	X
Ghigliotto	Tom	Chenega supporting BRAC	
Himebaugh	Grant	California Regional Water Quality Control Board, Central Coast Region (CCRWQCB)	
Huang	Judy	U.S. Environmental Protection Agency (USEPA)	X
Kan	Alex	USACE	
Kowalski	Bart	Chenega supporting BRAC	
Lieberman	Derek	Ahtna	
Meakes	Charity	USACE	X
Soderberg	Sheila	CCRWQCB	X
Sumner	Donald	USACE	
Wu	Min	DTSC	

2. BCT Minutes Status

Basewide Hazardous and Toxic Waste (HTW) Base Realignment and Closure (BRAC) Cleanup Team (BCT) minutes are final through October 2017. Operable Unit 1 (OU-1) HTW BCT minutes are final through January 2018.

3. Community Outreach Update

A review of recent community outreach events and upcoming activities was provided.

Long term actions underway include:

- Continue outreach related to munitions cleanup work in the northern portion of the Fort Ord National Monument.
- Evaluate results of 2017 community survey and publish draft analysis report.

Recent activities include:

- On January 16, 2018 issued press release "Former Fort Ord Burn Season Closes".

Upcoming activities include:

- On February 3, 2018 is the Community Involvement Mobile Workshop (CIW) open house/bus tour. Topics include groundwater cleanup, and the landfill. The Marina Coast Water District sent an invitation to all their customers.

- On February 6, 2018 is the Technical Review Committee (TRC) with the same topics as the February 3 CIW.
- In late March/Early April 2018 (date to be determined [TBD]) is the CIW Nature Walk inside the Impact Area. Topics include munitions cleanup, prescribed burns and habitat management.
- In April 2018 are Cleanup information booths at Earth Day events.
- On April 22 to 29, 2018 is the Cleanup information booth at the Sea Otter Classic.
- In May 2018 (date TBD) is the Cleanup information booth at the Presidio of Monterey (POM) Language Day.
- On July 12, 2018 provide cleanup presentation for the local chapter of the California Native Plant Society meeting. Presentation will emphasize munitions cleanup, prescribed burns and habitat management.
- On July 14, 2018 is the CIW open house/bus tour. Topics include munitions cleanup, prescribed burns, and habitat management.
- On July 17, 2018 is the TRC with the same topics as the July 14 CIW.
- On August 31, 2018 is the Cleanup information booth at the Monterey County Fair.
- In October 2018 (date TBD) is the Fort Ord National Monument National Public Lands Day celebration.

Community comments on munitions and cleanup related documents have been received and responses to comments (RTCs) are in progress.

4. Operable Unit 1 (HGL)

a. Remedial Action Completion Status Update – OU-1 site closure:

- The 2017 rare plant survey report will be distributed by the BRAC Biologist.
- The annual habitat meeting will be held on February 21, 2018 and the 2017 rare plant survey report will be presented.

5. Operable Unit 2

a. Groundwater Remedy/Monitoring –

- The Operable Unit 2 (OU2) groundwater treatment plant (GWTP) had 100 percent (%) operability through January 26, 2018.
- No injection point-of-compliance sample was collected in January 2017.
- Extraction well EW-OU2-09-180 is offline due to a failed variable frequency drive (VFD) and a replacement is in progress.
- The Third and Fourth Quarter 2017 groundwater data and the draft chemical of concern (COC) plume maps for the Fourth Quarter 2017 were presented. There were no significant changes to the plumes between the Third Quarter 2017 and Fourth Quarter 2017 events.
- In January 2018 Ahtna will coordinate with the JV as needed for any treated water use. Ahtna will also continue to prepare for the existing OU2 GWTP decommissioning. Ahtna will coordinate with Sea Haven developer for extraction well elevation adjustments of EW-OU2-08-A, EW-OU2-09-A, and EW-OU2-10-A.
 - EW-OU2-08-A is no longer needed because it met Quality Assurance Project Plan (QAPP) decision rules to stop sampling and operation a few years ago. An analysis of EW-OU2-08-A and nearby wells EW-OU2-07-A, EW-OU2-09-A, and MW-OU2-09-A COC trends was presented to support the decision. The two COCs above their aquifer cleanup levels (ACLs) in the past in the area of EW-OU2-08-A were 1,2-dichloroethane (1,2-DCA) and vinyl chloride (VC). QAPP decision rules are based on, and more conservative than, U.S. Environmental Protection Agency (USEPA) guidance for completion of the attainment

monitoring phase. The attainment monitoring phase is complete if all COCs are not detected (ND) or below the ACL for eight consecutive sampling events and a non-statistical analysis (visual review) or statistical analysis of the data demonstrates there is not an increasing trend.

- EW-OU2-07-A: Located west of EW-OU2-08-A. Well installed in 1995 and all COCs below ACLs since 2002, last operated in 2007, and last sampled in 2013 with all COCs ND in the last three sampling events. Non-statistical analysis confirms that attainment monitoring is complete at EW-OU2-07-A.
 - EW-OU2-08-A: Well installed in 1995 and all COCs below ACLs since 2010, last operated in 2011, and last sampled in 2013 with all COCs ND. Non-statistical analysis confirms attainment monitoring is complete at EW-OU2-08-A. Because this well is surrounded by three other wells it is not needed for depth to water measurements or capture of the plume which is no longer in the area.
 - EW-OU2-09-A: This well is closest to the 1,2-DCA and VC plumes east of EW-OU2-08-A. Well installed in 1995 and all COCs below ACLs since 2017. The well is currently operated and sampled. However, both non-statistical analysis and statistical analysis confirmed 1,2-DCA and VC concentrations are not increasing.
 - MW-OU2-09-A: Located west of EW-OU2-08-A and adjacent to EW-OU2-07-A. Well installed in 1987 and all COCs below ACLs since 2002, and last sampled in 2013 with all COCs ND in the last five sampling events. Non-statistical analysis confirms attainment monitoring is complete at MW-OU2-09-A.
- DTSC, CCRWQCB, and USEPA agreed with the recommendation to allow the private contractor to decommission EW-OU2-08-A.
 - Melissa Broadston got several calls from prospective Sea Haven residential home buyers about the cleanup program and they were invited to the CIW on February 3, 2018.
 - Private contractor Shea Homes is writing a Work Plan to modify the elevation of MW-OU2-40-A to match the new surface grade.

b. Treated Water Reuse – No treated water was used in January. Treated water will be used in the future by the JV for construction, KEMRON for the prescribed burn program, and Burlison for the irrigation system at historic area (HA) 26. To date approximately 1.4 million gallons of treated water have been used.

c. Groundwater Treatment Plant Relocation – Construction of the new OU2 GWTP is in progress. The following items were discussed:

- Work at the new GWTP building is in progress including plumbing, and electrical.
- A Pacific Gas & Electric (PG&E) letter is in progress to state the remedial system should have minimal downtime for human health reasons. Once the transition period starts if there is a major issue the old OU2 GWTP cannot be restarted.

d. Landfills Operations and Maintenance (O&M) – Recent landfill gas extraction and thermal treatment unit (TTU) operations and landfill cover system O&M activities were reviewed:

- The TTU is operated every two weeks at 60 to 70 hours.
- Methane at the TTU influent has had a declining trend overall but has recently increased, currently between 37% and 38%.
- Erosion control repairs are complete and have held up well. The repaired areas will be monitored over the wet season to see how they continue to hold up. There is no evidence yet of

owls occupying the new owl boxes; however, there are more raptors at the Landfills due to installed raptor perches.

- KEMRON will bring lead paint debris to Area E and a Work Plan and Accident Prevention Plan are in progress. The iron triangle will also be cleaned out and wood debris brought to the Landfills. A tub grinder will be brought to the Landfills in the future and make mulch for erosion control.

6. Sites 2 and 12

a. Groundwater Remedy/Monitoring –

- The Sites 2 and 12 (Sites 2/12) GWTP had 100% operability through January 26, 2018.
- One injection point-of-compliance sample was collected in January 2018 and all COCs were ND.
- On January 8, 2018 there was a communications issue at EW-12-08-180U caused by a storm event but the well is still operable. Stormwater is infiltrating a junction box due to its low elevation. This issue will be evaluated and repaired as necessary.
- The Third and Fourth Quarter 2017 groundwater data and the draft plume map for the Fourth Quarter 2017 were presented. The plume size in the Fourth Quarter 2017 is smaller than it was in the Third Quarter 2017. MW-12-14-180M had a TCE concentration above the ACL.
- Ahtna will coordinate with Presidio of Monterey Directorate of Public Works for sulfuric acid removal.
- GAC removal will be conducted at INF-02-03-180 before the new OU2 GWTP is online.

b. Soil Gas Monitoring –

The Sites 2/12 soil vapor extraction and treatment system (SVETS) had 99.8% operability through January 26, 2018.

7. Operable Unit Carbon Tetrachloride Plume

a. Groundwater Remedy/Monitoring –

- The Third and Fourth Quarter 2017 groundwater data and the draft plume maps for the Fourth Quarter 2017 were presented. The western extent of the A-Aquifer carbon tetrachloride (CT) plume appeared to expand somewhat into the City of Marina area. There was a decrease in CT concentrations in the A-Aquifer mid-plume area causing a split in the CT plume, possibly due to upgradient EISB treatment. Based on the configuration of EISB Deployment Areas 1C and 2A, groundwater elevation contours in the area, and CT detections at MW-BW-26-A there was a split in the CT plume in the area south of Reservation Road.
- In EISB Deployment Area 3A monitoring well MW-BW-91-A had an increase in CT in the Fourth Quarter 2017 event. Groundwater modeling shows there are some gaps in the distribution of sodium lactate substrate, including in the area of MW-BW-91-A. There were also different sampling methods used at the monitoring wells in EISB Deployment Area 3A through the Third Quarter 2017 event. The EISB Deployment Area 3A figure shows considerable progress in reducing CT concentrations due to EISB treatment. Another round of sampling is recommended to determine if a second treatment is needed at Deployment Area 3A. A second substrate injection could be conducted at select injection wells. However, the initial treatment has kick-started the monitored natural attenuation process.
- In the Upper 180-Foot Aquifer the concentration of CT at MW-OU2-67-180 decreased below the ACL in the Fourth Quarter 2017 after having increased above the ACL in the Third Quarter 2017. CT was ND at downgradient MW-OU2-70-180.
- The Lower 180-Foot Aquifer contour in the Fourth Quarter 2017 is similar to the Third Quarter 2017.

8. Basewide Range Assessment and Lead Evaluation Status

a. Basewide Range Assessment (BRA) –

- Comments were received from California Department of Toxic Substances Control (DTSC) on the Draft Technical Memorandum documenting the results of sampling in Units 1, 2, 3, 7, 10, 33, and Watkins Gate Burn Area (WGBA). Responses to comments were provided to the agencies. Additional DTSC comments were received and revised response to comments were submitted. A meeting to discuss the comments was held on November 3, 2017. Additional changes to the Work Plan was submitted as an Addendum in December 2017 for additional step-out samples in Unit 33. DTSC provided concurrence on sample collection and requested further explanation on area-weighted average. Samples will be collected next week. Maps are being prepared for DTSC to discuss the area weighted average.
- The Draft Technical Memorandum for sampling results in Units 5A and 9 was submitted and responses to comments were submitted. Back check comments were received and responses are in progress.
- The Draft Sampling Plan for Unit 31 was submitted and responses to comments are in progress.
- The Draft Technical Memorandum for sampling results in Unit 23 is being prepared for issue tomorrow.
- The Draft Final Sampling Plan for Units 25 and 28 is being prepared.
- Army back check comments on the Comprehensive BRA Report are being resolved. The entire document will be reissued instead of replacement pages.

b. Lead Evaluation at HA 18D and HA 23D – Cory Koger with USACE outlined the excavation units for Units 18D and 23D and will wait to see where the USEPA and DTSC are at with the blood lead level before taking action. The new regulation is expected to be published around July 2018.

c. Erosion Control – KEMRON is monitoring Site 39 areas throughout the Impact Area MRA for erosion issues. KEMRON is addressing maintenance issues at erosion control sites.

d. Habitat Restoration –

- Plant installations began in December 2017 for the 7,713 plants to restore approximately 5 acres.
 - HA 26 will get 5,563 plants in 3.3 acres, installation completed two weeks ago.
 - HA 28 will get 948 plants (for the missed species targets last year), installation completed.
 - HA 44 will get 1,110 plants in 1.5 acres, currently installing anticipate completion next week.
- Plant propagation for the 2018-2019 plant inventory has started for a target of 5,962 plants to restore 3.3 acres. Approximately 2,500 plants are grown from cuttings which take two to four months to root and a full year to be the right size for planting.
- Continuing to monitor HA 34 and HA 37 for any erosion control repairs, these areas are prone to erosion.
- An irrigation system started installation at HA 26 to water 3,000 plants for ten irrigation events in 2018 (2 gallons of water per plant per event). The start of irrigation will be dependent on weather conditions. It will take 6,000 gallons to fill the irrigation system.

9. FFA Schedule

a. Status Update – The Federal Facility Agreement (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 Final OU-1 Closeout Report was submitted. There are no other primary documents currently.

b. Document Schedule – A copy of the latest document schedule was distributed. There are several annual reports to be issued soon with the Draft Sites 2/12 and OUCTP reports issued and Draft OU2 report to be issued soon. The Draft Groundwater QAPP comments are due on March 1, 2018.

10. Action Items

Four action items were identified in the last HTW BCT meeting:

1. Finalize HTW BCT general minutes from January 10, 2018: **in progress**.
2. Finalize HTW BCT OU-1 minutes from January 10, 2018: **completed**.
3. Determine if partial deletion of Fort Ord from the NPL is possible once OU-1 site closure process is completed: **ongoing**. Maeve Clancy with USEPA stated that USEPA is supportive of partial deletion from the NPL, but not for OU-1 due to the presence of PFOA and PFOS. USEPA will consider deletion of other Fort Ord sites, but would prefer deletions of areas that are as large as possible. The Army will look into other sites where remedial actions are complete and prepare a list.
4. Document review and comment: **ongoing**, housekeeping action item to verbally review the document deliverable schedule.

11. Calendar Update

- The Community Involvement Mobile Workshop is scheduled for **February 3, 2018 at 9:00 AM** at the Joe Lloyd Way compound.
- The Technical Review Committee meeting is scheduled for **February 6, 2018 at 10:00 AM** in the BRAC Conference Room.
- The Annual Habitat meeting is scheduled for **February 21, 2018 at 9:00 AM** in the BRAC Conference Room.
- The March HTW BCT meeting is scheduled for **March 6, 2018 at 9:00 AM** at the Regional Water Quality Control Board office in San Luis Obispo.
- The April 2018 HTW BCT meeting is scheduled for **April 11, 2018 at 1:30 PM** in the BRAC Conference Room.