



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

Meeting Minutes

January 10, 2018

BRAC Conference Room
Former Fort Ord, California



Agenda

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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	
Crane	Steve	KEMRON Environmental Services (KEMRON)	
Dillon	Holly	Ahtna Environmental, Inc. (Ahtna)	
Evans	Roy	HydroGeoLogic (HGL)	X
Fenton	Jeff	Amec Foster Wheeler	X
Huang	Judy	U.S. Environmental Protection Agency (USEPA)	
Kan	Alex	U.S. Army Corps of Engineers (USACE)	
Kowalski	Bart	Chenega supporting BRAC	
Lieberman	Derek	Ahtna	
McNeill	Bonnie	USACE	X
Meakes	Charity	USACE	X
Soderberg	Sheila	California Regional Water Quality Control Board, Central Coast Region (CCRWQCB)	X
Sterling	Steve	DTSC	X
Stiebel	Cary	Chenega supporting BRAC	
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 September 2017. Operable Unit 1 (OU-1) HTW BCT minutes are final through November 2017.

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:

- No significant activities.

Upcoming activities include:

- On January 17, 2018 go through the dry run for the presentations on February 3 and 6, 2018.
- On February 3, 2018 is the Community Involvement Mobile Workshop (CIW) open house/bus tour. Topics include groundwater cleanup, and the landfill.

- 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 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 Final OU-1 Closeout report is a primary report and was submitted in December 2017. Since the Draft comments were minor the Draft Final version was not needed and was agreed to by the regulatory agencies.
- The 2017 rare plant survey report was submitted for review and comments were received. Response to comments were sent to Bart Kowalski for back check review.
- 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 99.5 percent (%) operability through December 31, 2017.
- One injection point-of-compliance sample was collected in December 2017. All chemicals of concern (COCs) were not detected.
- The OU2 GWTP continues to operate with two GAC vessels online instead of four due to flange failure in eastern berm on October 10, 2017. The two operating GAC vessels have sufficient capacity.
- December 4 to 8, 2017 the Fourth Quarter 2017 Groundwater Monitoring Program (GWMP) was performed.
 - The new Sea Haven wells MW-OU2-06-AR and MW-OU2-06-180R2 were sampled for the first time.
 - On December 26, 2017 EW-OU2-10-A was sampled.
 - Preliminary Fourth Quarter 2017 results were presented and results were similar to the Third Quarter 2017.
- On December 5, 2017 Ahtna coordinated with the RORE Innovative Solutions Joint Venture (JV) for tie-in of new wells (EW-OU2-11-AR and EW-OU2-02-180R). EW-OU2-10-A, EW-OU2-12-A, and EW-OU2-13-A were offline from December 5 to 13, 2017.

- On December 8, 2017 the Shoppette extraction well network (EW-OU2-16-A and -06-180) was offline due to faulty antennae cable until December 11, 2017.
- On December 14, 2017 an optimization meeting was held.
- On December 21, 2017 a GAC change-out was conducted at TK-600C and the GWTP was offline for four hours. TK-600D is now in the lead position.
- 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 nearby COC trends will be presented at the next HTW BCT meeting to support the decision.

b. Treated Water Reuse – No treated water was used in December. The JV still intends to use treated water for hydrostatic testing. The prescribed burn program will use treated water this year. Soon the treated water will be used for an irrigation system for habitat restoration at HA 26.

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, electrical, and lightning grounding rod. The potable water and fire suppression pipelines passed testing.
- Pacific Gas & Electric (PG&E) installed the transformer at the new OU2 GWTP.
- A PG&E letter is in progress to state the remedial system should have minimal downtime for human health reasons.

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 has been in operation since 2006 for 12 years now.
- Methane at the TTU influent has had a declining trend overall but has recently increased, currently between 37% and 38%.
- The TTU is being operated 60 to 70 hours every two weeks and operational time is periodically adjusted to maintain a consistent methane concentration at the TTU influent.
- Methane at VF-3 had a decrease a few months ago due to a broken valve allowing ambient air into the system. The broken valve was replaced and methane concentrations returned to normal levels.
- Erosion control repairs are complete with repair to erosion gulleys in Areas E and F, reseeding, and jute netting. Seeded plants are already growing. The repaired areas will be monitored over the wet season to see how it holds up. Pictures of the erosion control repairs were provided.
- Rodent control measures were conducted at the Landfills including installation of approximately 18 owl boxes, some with raptor perches above the owl boxes. There is currently no evidence of owl occupancy; it may take a season for owls to occupy the boxes. However, more raptors have been observed at the Landfills, including red-tailed hawks and a golden eagle. Pictures of the owl boxes and raptor perches were provided.

6. Sites 2 and 12

a. Groundwater Remedy/Monitoring –

- The Sites 2 and 12 (Sites 2/12) GWTP had 51.6% operability through December 31, 2017.

- On December 14, 2017 the Sites 2/12 GWTP shut down and would not restart. Troubleshooting found the central processing unit (CPU) in the programmable logic controller (PLC) had failed. Replacement parts were ordered and installed. The Sites 2/12 GWTP was restarted on December 29, 2017.
- No injection point-of-compliance samples were collected in December 2017.
- The landowner Shea was contacted on December 12, 2017 about cleaning up household refuse dumped near the Sites 2/12 GWTP. It was determined the land did not belong to City of Marina. The accumulation of waste is a violation of City ordinance.
- An Underground Service Alert (USA) notice was received for the area around Building 2420 (brick building); it was noted that vegetation and the fence was removed from around the building.
- December 4 to 8, 2017 the Fourth Quarter 2017 GWMP was performed.
 - On December 26, 2017 MW-12-01-180 was sampled.
 - Preliminary results were presented. MW-12-14-180M had an increase of TCE concentrations above the ACL. This well has had sporadic TCE concentrations above the ACL historically and is within the capture area of a nearby extraction well. PCE concentrations at MW-12-24-180U decreased below the ACL; however, the PCE plume shape remains stable.
 - Diesel odor was detected on the passive diffusion bag at MW-12-20-180U in the Third Quarter 2017 GWMP event. During the Fourth Quarter 2017 event a discrete depth sample was collected for total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) analysis. There was still a diesel odor present; however, no sheen or free product was observed during sampling. TPH-GRO was not detected; however, TPH-DRO was detected at 262 micrograms per liter ($\mu\text{g/L}$) which is above the United States Environmental Protection Agency (USEPA) Region 9 tap water Regional Screening Level (RSL) of 100 $\mu\text{g/L}$.
 - Additional TPH sampling will be conducted in the First Quarter 2018 GWMP event at seven wells (MW-12-18-180U, MW-12-19-180U, MW-12-19-180M, MW-12-20-180U, MW-12-21-180U, MW-12-24-180U and MW-12-25-180U). These wells are screened in the upper and middle Upper 180-Foot Aquifer in the area between the Lower Meadow and the stormwater infiltration basin.
 - The Lower Meadow area was remediated for TPH contamination of the soil by excavation and the last sample was collected in 1998.
- On December 14, 2017 an optimization meeting was held.
- Ahtna will coordinate with Presidio of Monterey Department of Public Works for sulfuric acid removal.
- GAC removal will be conducted at INF-02-03-180 in the future 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 December 31, 2017.

7. Operable Unit Carbon Tetrachloride Plume

a. Groundwater Remedy/Monitoring –

- December 4 to 8, 2017 the Fourth Quarter 2017 GWMP was performed.
 - On December 26, 2017 the sample at MW-OU2-67-180 was collected.

- Preliminary results from the Fourth Quarter 2017 GWMP were presented.
- A-Aquifer results were similar to the previous quarter. TCE was either not detected or below the ACL in all monitored wells. Chloroform is above the ACL at one location (MW-BW-31-A) which declined in concentration during this event after persistent higher concentrations in previous events. Carbon tetrachloride (CT) at MW-BW-87-A in EISB Deployment Area 3A declined below the ACL. Two wells in Hydraulic Zone 4 had CT concentrations decline below the ACL at EW-BW-155-A and MW-BW-36-A, which is likely a long term result of upgradient remediated groundwater flowing through the area.
- The Upper 180-Foot Aquifer expanded to the southeast in the Third Quarter 2017 GWMP; however, CT was not detected at MW-OU2-70-180.
- The Lower 180-Foot Aquifer has had consistent TCE concentrations above the maximum contaminant level at one well (MW-OU2-82-180). CT concentrations have been variable in the southern area; however, plume shape is stable and concentrations are low overall. In the northern area only the Airfield location has had consistent CT concentrations just above the ACL.
- On December 14, 2017 an optimization meeting was held.
- OUCTP EISB Deployment Area 3A was constructed in 2016 and operated from December 2016 with sodium lactate injection recirculation completed in August 2017. Long-term monitoring is being conducted. CT, chloroform, and chloromethane concentrations were presented. CT concentrations declined at most of the wells in this area except EW-BW-160-A and MW-BW-91-A. EW-BW-160-A is the furthest away from an injection well. MW-BW-91-A is located in the middle of the deployment area but not in the direct path of sodium lactate distribution. MW-BW-91-A was also monitored with two methods historically by low-flow and passive diffusion bag (PDB). However, it was determined to only sample volatile organic compounds by PDB since it is more conservative and conforms with the sampling method for the basewide groundwater monitoring program. It is expected with long-term monitoring to continue to observe reducing conditions. Chloromethane and chloroform are breakdown products of the reductive dechlorination process and have had sporadic detections.

8. Basewide Range Assessment and Lead Evaluation Status

a. Basewide Range Assessment (BRA) –

- Comments were received from 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 and comments were requested by January 10, 2018. After sampling completed and results received will continue discussion about area weighted average with DTSC and EPA would defer to DTSC but still be included in correspondence.
- The Draft Technical Memorandum for sampling results in Units 5A and 9 was submitted and responses to comments were submitted.
- The Draft Sampling Plan for Unit 31 was submitted and responses to comments are in progress.
- The Preliminary Draft Technical Memorandum for sampling results in Unit 23 was submitted and responses to comments are in progress.

- The Draft Sampling Plan for Units 25 and 28 was submitted and comments were requested by January 8, 2018. Alex Kan will forward comments received from DTSC to KEMRON and EPA.
- Army back check comments on the Comprehensive BRA Report are being resolved.

b. Lead Evaluation – Cory Koger with USACE outlined the excavation units for Units 18D and 23D and will wait to see where the Environmental Protection Agency (EPA) and the California Department of Toxic Substances and Control (DTSC) are at with the blood lead level before taking action. The new regulation is expected to be published around April 2018.

c. Erosion Control – KEMRON is monitoring Site 39 areas throughout the Impact Area MRA for erosion issues. KEMRON is working on Historic Area (HA) 37 erosion control measures.

d. Five-Year Review – The Final 4th Five-Year Review report was submitted. The Public Notice was published in the Monterey Herald on December 23, 2017 and in the Salinas Californian on December 22, 2017. The Fact Sheet describing the completion of the review was submitted and posted on the Fort Ord Cleanup website. The blood lead level promulgation may be determined by DTSC by April 2018. The EPA tracks commitments stated in the Five-Year Review including the lead issue which stated a path forward would be determined by December 2017. However, the path forward is on hold pending the DTSC promulgation. This item can be removed from the agenda. However, the outstanding lead issue will remain on the agenda.

e. 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, installed approximately 3,800 plants to date and anticipate completion this month.
 - HA 28 will get 948 plants (for the missed species targets last year), anticipate planting to be done in February 2018.
 - HA 44 will get 1,110 plants in 1.5 acres, anticipate planting to be done in February 2018.
- Plant propagation for the 2018-2019 plant inventory has started for a target of 5,962 plants to restore 3.3 acres.
- Continuing to monitor HA 34 and HA 37 for any erosion control repairs, these areas are prone to erosion.
- An irrigation system will be installed at HA 26 to water 3,000 plants for ten irrigation events in 2018. The design was finalized and installation is tentatively scheduled to begin on January 22, 2018. The start of irrigation will be after plant installation complete and will depend on weather conditions.

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.

10. Action Items

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

1. Finalize HTW BCT general minutes from November 8, 2017: **in progress**.
2. Finalize HTW BCT OU-1 minutes from November 8, 2017: **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 next HTW BCT meeting is scheduled for **February 2, 2018 at 1:30 PM** in the BRAC Conference Room.
- 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 2018 HTW BCT meeting will be held offsite in San Luis Obispo at the CCRWQCB office on **March 6, 2018 at 9:00 AM**.
- The April 2018 HTW BCT meeting is scheduled for **April 11, 2018 at 1:30 PM** in the BRAC Conference Room.