



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

Meeting Minutes

July 13, 2018

BRAC Conference Room
Former Fort Ord, California



Agenda

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- 4. Operable Unit 2**
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 - b. Treated Water Reuse
 - c. Groundwater Treatment Plant Relocation
 - d. Landfills O&M
- 5. Sites 2 and 12**
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 - b. Soil Gas Monitoring
- 6. Operable Unit Carbon Tetrachloride Plume**
 - a. Groundwater Remedy/Monitoring
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 - a. Basewide Range Assessment
 - b. Lead Evaluation at HA 18D and HA 23D
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- 10. Calendar Update**

1. Attendance

Last Name	First Name	Company Name	By Phone
Anderson	Thor	Burleson Consulting	
Arsov	Vlado	California Department of Toxic Substances Control (DTSC)	
Balch	Duane	U.S. Army Corps of Engineers (USACE)	
Broadston	Melissa	Chenega supporting BRAC	
Caruso	Erin	Gilbane	X
Clancy	Maeve	U.S. Environmental Protection Agency (USEPA)	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)	
Fenton	Jeff	Wood Environment & Infrastructure Solutions, Inc. (wood.)	X
Floyd	Bridget	U.S. Army Corps of Engineers (USACE)	
Ghigliotto	Tom	Chenega supporting BRAC	
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
Sellinger	Amber	California Regional Water Quality Control Board, Central Coast Region (CCRWQCB)	X
Soderberg	Sheila	CCRWQCB	X
Whipple	Jonathan	USACE	
Wu	Min	DTSC	

2. BCT Minutes Status

Hazardous and Toxic Waste (HTW) Base Realignment and Closure (BRAC) Cleanup Team (BCT) meeting minutes are final through May 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 with emphasis on outreach prior to vegetation cutting near Happy Trails.
- The 2018 burn season was started on June 15. Responded to e-mail and hotline inquiries and direct notification enrollment requests. Number of participants enrolled in Direct Notification as of July 5, 2018 is 557.
- Evaluate results of 2017 community survey and publish draft analysis report.
- The Annual report which is like a newspaper summary of Fort Ord cleanup and last call information about the prescribed burn is almost completed and will be sent to the BCT for

review before it is published and sent to approximately 65,000 addresses in and around the cities of Marina, Seaside, Monterey, Pacific Grove, and Carmel.

Recent activities include:

- On June 11, 2018 provided a burn briefing to California State University Monterey Bay for 10 participants.
- On June 14, 2018 sent media release announcing burn season.
- On June 14 to 15, 2018 published ads announcing burn season.
- On June 14, 2018 sent e-mail announcing burn season.
- On June 15, 2018 sent over 16,000 newsletters announcing burn season and sending enrollment form for Direct Notification Program.
- On June 25, 2018 provided a burn briefing to Del Rey Oaks to 15 participants.

Upcoming activities include:

- On July 14, 2018 is the Community Involvement Workshop (CIW) open house/bus tour. Topics include munitions cleanup, prescribed burns, and habitat management. Four small buses will take the public to areas inside the impact area driving by prescribed burn areas.
- On July 17, 2018 is the Technical Review Committee (TRC) with the same topics as the July 14 CIW.
- On August 7, 2018 bus tour for local senior center.
- On August 31, 2018 is the information booth at the Monterey County Fair.
- In October 2018 (date TBD) is the Fort Ord National Monument National Public Lands Day celebration.
- TBD (possible date September 13, 2018) provide cleanup presentation for the local chapter of the California Native Plant Society. Presentation will emphasize munitions cleanup, prescribed burns and habitat management.

There have been no recent public comments on documents, but responses to comments (RTCs) from Mike Weaver are in progress for a few documents.

5. Operable Unit 2

a. Groundwater Remedy/Monitoring –

- The Operable Unit 2 (OU2) groundwater treatment plant (GWTP) had 85 percent (%) operability through June 30, which is below the 95% operational goal.
- One injection point-of-compliance sample was collected in June 2018 and there were no detections of chemicals of concern (COCs) due to the granular activated carbon (GAC) change-out on June 19, 2018.
- June 1 to 5, 2018 the OU2 GWTP was shut down for 104.5 hours for Sea Haven extraction well surface adjustments at EW-OU2-09-A and EW-OU2-10-A, decommissioning of EW-OU2-08-A, and removal of decommissioned well vault EW-OU2-02-180. On June 6, 2018 the eastern network wells were restarted.
- On June 11 to 14, 2018 the Second Quarter 2018 Groundwater Monitoring event was conducted.
 - MW-OU2-42-180 was found to have been damaged by a Marina Coast Water District (MCWD) contractor. Well vault, concrete collar, and upper two feet of well casing were removed and the well buried. Well used for groundwater elevation data only. A meeting was held on June 19, 2018 with MCWD to discuss the path forward, including locating and uncovering the well and repairing the surface completion. It will also be determined if any well development is needed. MCWD said they would complete these activities before the Third Quarter 2018 groundwater monitoring event.

- It was observed that a Las Animas concrete washout area is near MW-OU2-21-A. Well used for groundwater elevation data only. Las Animas was contacted on June 26, 2018 and asked to discontinue concrete washout at that location. It was observed that the concrete washout located near MW-OU2-21-A is no longer being used.
- On June 19, 2018 the OU2 GWTP shut down for three hours due to a GAC change out.
- In July Ahtna will coordinate with Burleson as needed for any treated water use. KEMRON is done using treated water for prescribed burn preparations.
- Ahtna will continue to prepare for the existing OU2 GWTP decommissioning and upcoming well installation and decommissioning activities.
 - Amber Sellinger with the CCRWQCB asked why four wells (MW-OU2-33-A, MW-BW-20-180, MW-BW-22-180, and MW-BW-29-180) are being decommissioned without a recent sample when they are downgradient of the current COC plume with concentrations above the aquifer cleanup level (ACL). Derek Lieberman with Ahtna explained that the sample frequency of each well follows the conservative decision rules in the approved Quality Assurance Project Plan (QAPP), nearby wells were statistically analyzed to confirm the wells are appropriate for decommissioning, and the groundwater flow in the area shows that these wells are upgradient of the COC plume above the ACL, not downgradient. Ms. Sellinger confirmed this addressed her comment and is ok with decommissioning these wells.
- Ahtna is preparing for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) sampling at select OU2 wells and the OU2 GWTP.
- Preliminary results from the Second Quarter 2018 sampling event were shared. Results were similar to the previous quarter, with a slight decline in several wells with a couple exceptions. COC concentrations continue to increase at MW-OU2-08-A and MW-OU2-75-A. A new groundwater monitoring well will be installed in this area of the plume.

b. Treated Water Reuse – 140,000 gallons of treated water was used in June by Burleson for an irrigation project and KEMRON for the prescribed burn program. A total of approximately 1,600,000 gallons of treated water has been used.

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

- New master switch boards were installed at the Ord Market and the existing GWTP. Pacific Gas and Electric (PG&E) inspected at the end of June and now the JV is on the 10-week PG&E construction schedule.
- The fire suppression system, electrical, and plumbing were installed.

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:

- Three or four owl nest boxes at the Landfills are occupied. The nest boxes were installed last October and it can take about a year for owls to occupy them. There continues to be increased raptor activity after installation of raptor perches and utility poles. Pictures of an owl in a nest box and a red tailed hawk on a raptor perch were provided.
- June 4 to 8, 2018 vegetation management was conducted, including mowing of the vegetative cover and trimming around probes.

- The Second Quarter 2018 landfill gas monitoring event and TTU source testing was conducted June 19 to 25, 2018. The quarterly County inspection was conducted on June 19, 2018 and there were no issues.
- The TTU is being operated 70-80 hours every two weeks. The TTU methane concentration had decreased slightly recently, and TTU operation will be modified to get it to increase into the desired 37-38 percent range. It is projected that supplementary fuel would not be needed until 2046.

6. Sites 2 and 12

a. Groundwater Remedy/Monitoring –

- The Sites 2 and 12 (Sites 2/12) GWTP had 89.2% operability through June 30, which is below the 95% operational goal.
- Two injection point-of-compliance samples were collected in June and there were a few low level COC detections below the discharge limit.
- On June 9 the Sites 2/12 GWTP shut down for 48 hours due to a power outage and loss of communications.
- On June 19 the Sites 2/12 GWTP shut down for 3 hours due to OU2 GAC change out.
- On June 24 the Sites 2/12 GWTP shut down for 27 hours due to a power outage.
- The Second Quarter 2018 Groundwater Monitoring was conducted June 11 to 14.
- Preparations continue for well decommissioning activities planned for this summer.
- The Monterey County Department of Health inspected the Sites 2/12 GWTP to confirm removal of sulfuric acid below the 55 gallon permit limit. The tank discharge pipe was disconnected. There is approximately 40 gallons left in the tank because the discharge pipe is located two inches above the bottom of the tank. The County is proceeding with closure of the hazardous materials permit. The rest of the sulfuric acid will be removed concurrently with decommissioning of the GWTP after site closeout is achieved.
- The preliminary Second Quarter 2018 groundwater monitoring results were provided and only one groundwater well had a tetrachloroethene (PCE) detection above the aquifer cleanup level. The one well is the groundwater extraction well EW-12-08-180U which will continue to operate. A predictive trend line does not fit well with data but shows a decline in concentrations at this well. There is a robust network of monitoring wells in the area showing that PCE concentrations at Sites 2/12 have declined due to treatment.
- Total petroleum hydrocarbon (TPH) results were presented for the Fourth Quarter 2017, First Quarter 2018, and Second Quarter 2018 sampling events. Results were similar for each quarter at MW-12-20-180U, and the TPH-diesel results after silica gel cleanup were below the screening level. No further action was recommended and DTSC accepted this recommendation. No further sampling for TPH analysis will be performed at Sites 2/12.

b. Soil Gas Monitoring/Optimization –

- The Sites 2/12 soil vapor extraction and treatment system (SVETS) had 100% operability through June 30. The SVETS is not effected by power outages like the GWTS is due to a newer variable frequency drive auto restart after power blips, which the GWTS cannot recover from.
- The Second Quarter 2018 Soil Gas Monitoring Program was conducted May 21 to 22.
 - One SVE well (VE-12-09) had an estimated concentration of PCE, and PCE and TCE were not detected at all other SVE wells.

- Soil gas probe results were similar to the previous events with a PCE concentration below the soil gas cleanup level but above the soil gas screening level at SG-12-02-10 in front of Target.
- PCE and TCE were not detected at all other soil gas probes.
- PCE and TCE were detected at the SVETS effluent and the USEPA AERSCREEN Model was utilized to confirm the concentration does not present a human health risk according to Air District Rule 207 and Rule 1000.
- After review of the Second Quarter 2018 groundwater monitoring results and application of the decision rules in the Soil Gas Quality Assurance Project Plan, it is recommended that two currently operating SVE wells be turned off (VE-12-06 and VE-12-10). One SVE well (VE-12-09) within the groundwater plume footprint would continue to operate. An e-mail describing the recommended operation change will be sent for review by the BCT.

7. Operable Unit Carbon Tetrachloride Plume

a. Groundwater Remedy/Monitoring –

- On June 5 EW-OU2-09-180 was restarted after a temporary shutdown of the OU2 GWTP during Sea Haven extraction well adjustments/decommissioning.
- Preparations continue for well installation and decommissioning activities planned for this summer.
- The Second Quarter 2018 Groundwater Monitoring event was conducted June 11 to 14. The OUCTP Enhanced In Situ Bioremediation (EISB) Deployment Area 3A samples were lost by FedEx and had to be recollected on June 20.
- The preliminary Second Quarter 2018 groundwater analytical results were presented. Most results were similar to the previous events with some exceptions. There were increases in carbon tetrachloride (CT) concentrations at EW-BW-160-A, MW-BW-26-A, MW-OU2-67-180, and MP-BW-50-339. There was a decrease in CT concentration at MW-BW-36-A, which caused the mid-plume area of carbon tetrachloride (CT) split again. This may be due to seasonal variations and the effectiveness of upgradient EISB deployment areas.

8. Basewide Range Assessment and Lead Evaluation Status

a. Basewide Range Assessment (BRA) –

- Revised response to comments were submitted to 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). KEMRON prepared an addendum to the work plan to collect 3 additional samples to bound the remediation area and better assess the hot spots and low concentrations zones. These samples will be collected in the next couple of months.
- Preliminary results for sampling in Units 25, 28, and 31 have been received and validation is in progress. Reanalysis is required for the stepdown samples from Unit 31 for some of the results above the lead screening level. Unit 31 is scheduled for prescribed burn. All other results at Units 25 and 28 were not detected for explosives and below the lead screening level.
- KEMRON is working on comments for the back check sections of the update to the Comprehensive Basewide Range Assessment Report.

b. Lead Evaluation Sites – DTSC plans to release the new lead cleanup level in September 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. Former range sites maintenance will include installing best management practices before the rainy season.

Soil Management

KEMRON is managing the transfer of soil into OU2 Landfills Area E. 4,700 cubic yards have been brought to the Landfill from the Marina Coast Water District (MCWD) recycled water pipeline installation project. Will wait a couple more weeks to see if more soil will be brought to Area E. Soil is sampled and results sent to DTSC.

d. Habitat Restoration –

- Continuing plant propagation for a target of 5,962 plants to restore 3.3 acres at HA 34 (2.5 acres), HA 26 (0.5 acre), HA 28 (0.3 acre), and additional plants for corrective measures. The current inventory is 9,000 plants, so there is enough quantity though there are a couple species that are currently short on the target quantity. There is still time before planting season to reach these goals.
- The irrigation system at HA 26 is watering 3,000 plants which had the first event in May with 6,000 gallons of water from the OU2 treated water, the second irrigation event in early June with 6,000 gallons of OU2 treated water, the third irrigation event in late June with 8,000 gallons of OU2 treated water, and the fourth event in July with 9,000 gallons of OU2 treated water. Irrigation is planned every 2 to 3 weeks, with ten irrigation events throughout the dry season. Plants are responding well to the increase in water at the irrigation events including the mulched plants. The goal is to get two gallons of water to each plant, total water volume has increased to ensure each plant gets this goal.
- Currently the vegetative cover survey transection are in progress.
- Seed collection is occurring for Monterey ceanothus (100% done), silver bush lupine (20% done), and Monterey spineflower (90% done), and reconnaissance is occurring at other target species.

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. There are no primary documents currently.

b. Document Schedule – A copy of the latest document schedule was distributed. The Well Installation Work Plan is Final and the Well Decommissioning Work Plan will be sent out Final on Monday.

10. Action Items

There were no updates to action items since the last HTW BCT meeting.

11. Calendar Update

- The Community Involvement Workshop and bus tours are scheduled for **July 14, 2018 at 10:00 AM**.
- The Technical Review Committee meeting is scheduled for **July 17, 2018 at 10:00 AM** in the BRAC Conference Room.
- The August 2018 HTW BCT meeting is scheduled for **August 15, 2018 at 1:30 PM** in the BRAC Conference Room.

- The September 2018 HTW BCT meeting is scheduled for **September 12, 2018 at 1:30 PM** in the BRAC Conference Room.