

**Former Fort Ord Operable Unit (OU)-1 – Base Closure Team (BCT) Meeting  
Update  
Groundwater Remediation, Well Destruction, and Treatment Plant Decommissioning  
Marina, California  
15 March 2016**

**OU-1 On-Post Activities for 17 February through 09 March 2016**

Prepared by HydroGeoLogic, Inc., Roy Evans, Project Manager

**Attendees: (to be revised after meeting)**

<b>Individual</b>	<b>Attended?</b>	<b>Individual</b>	<b>Attended?</b>
James Specht, USACE		Grant Himebaugh, RWQCB	
Teresa Rodgers, USACE		Noel Shrum, DTSC	
Alex Kan, USACE		Jeff Fenton, AMEC	
Bonnie McNeill, USACE		Derek Lieberman, Ahtna	
Cory Koger, USACE		Eric Schmidt, Ahtna	
Jonathan Whipple, USACE		Holly Dillon, Ahtna	
William Collins, BRAC		Megan Gehrke, Ahtna	
Tom Ghigliotto, Chenega <sup>1</sup>		Thor Anderson, Burleson	
Melissa Broadston, Chenega <sup>1</sup>		Steve Crane, Kemron	
Bart Kowalski, Chenega <sup>1</sup>		Erin Caruso, Gilbane	
Cary Stiebel, Chenega <sup>1</sup>		Larry Friend, Gilbane	
Judy Huang, EPA		Kevin Siemann, Gilbane	
Martin Hausladen, EPA		Monique Perry, Gilbane	
Kimberly Gettman, DTSC		Roy Evans, HGL	
Min Wu, Ph.D., DTSC		Kevin Wierengo, HGL	
Steve Sterling, DTSC		Gage Dayton, Ph.D., UCSC	
Edward Walker, DTSC		Jonathan Whipple	
David Eisen, USACE			
X = attended in person or by telephone; blank indicates absent from the meeting			

**Notes:**

<sup>1</sup>Chenega staff supporting the BRAC  
Ahtna = Ahtna Engineering Services  
BRAC = Base Realignment and Closure Fort Ord Office  
CB&I = Chicago Bridge & Iron, Inc.  
DTSC = California Department of Toxic Substances Control  
EPA = U.S. Environmental Protection Agency  
HGL = HydroGeoLogic, Inc.  
RWQCB = Regional Water Quality Control Board  
UCSC = University of California, Santa Cruz  
USACE = U.S. Army Corps of Engineers

## **OU-1 Treatment Plant Operations**

The regulatory agencies concurred that remediation is complete. The northwest treatment system (NWTS) is offline but operable.

## **Reporting/Federal Facility Agreement (FFA) Schedule**

The status of ongoing and anticipated reports for OU-1 is summarized in Table 1. Ongoing efforts are as follows:

- The Final Technical Memorandum (TM) summarizing the results of Attainment Monitoring events 1 through 4 is being prepared.
  - A markup version of the draft memorandum incorporating the responses to comments received on the draft was submitted for review and accepted without further change by EPA, DTSC, and RWQCB. If the regulatory agencies concur, the draft final submittal will be omitted and the markup version will be submitted in “clean format” as the final version.
  - The final document title will be revised to include the phrase “Remedial Action Completion Report” and the cover letter will request final remedial action completion concurrence.
- The Final TM will become a primary document and will serve as the basis for EPA to issue a “Cleanup Goals Achieved” finding.
  - The FFA allows the parties to adjust the review schedule for primary documents with mutual concurrence. As no public comments were received on the draft version, the Army requests that the already completed 30-day review period be accepted rather than extend it to 60 days.
  - The Final TM will serve as the basis for the regulatory agencies to direct the Army to destroy OU-1 wells that are not needed to support other groundwater monitoring and to decommission the NWTS.
- No other OU-1 reports will be needed to support OU-1 Closure until all OUs have attained their respective cleanup goals and are addressed in the former Fort Ord Final Closeout Report.
- The Army will describe the future well destruction / plant decommissioning effort in an OU-1 Groundwater Monitoring Report.

## OU-1 Groundwater Sampling and Analytical Results

Groundwater sampling is complete. All analytical results show that chemical concentrations in OU-1 groundwater for all compounds tested have remained well below the aquifer cleanup levels (ACLs) established in the Record of Decision (ROD) or the screening values established in the Exit Strategy.

## Five Year Review

The Five Year Review cycle for the former Fort Ord cleanup ends this year (2012 – 2016). EPA stated that this will be the final Five Year Review if there are no institutional controls (IC) associated with site closure. However, if IC(s) remain in place, then follow-up Five Year Review efforts will be required.

The Record of Decision (ROD) states in Section 2.7, last paragraph that “In summary, even if unlimited use occurred at this site, the resultant risks from exposure to soils and groundwater at remediation would be no greater than that described above for groundwater, and no institutional controls (i.e., deed restrictions) are needed.” However, after the ROD was signed, institutional controls regarding contaminated groundwater at the former Fort Ord were developed and implemented. The Explanation of Significant Differences (ESD) identified the institutional controls and their application as follows (highlights and bold font added):

- In addition to the remedy selected in the OU1 ROD for groundwater, institutional controls (e.g., deed restrictions and land use controls) are or will be applied to prevent access or use of the groundwater within the OU1 area for any purpose, **until Aquifer Cleanup Goals are met**, and to maintain the integrity of any current or future remedial or monitoring system including monitoring, extraction, and injection wells.
- Property overlying and surrounding OU1 is within the “Prohibition Zone” of the “Special Groundwater Protection Zone.” The Prohibition Zone is identified on the Former Fort Ord “Special Groundwater Protection Zone Map,” which is on file with the County of Monterey, and shown on Figure 5. County Ordinance No. 04011 (Monterey County Code Title 15, Chapter 15.08.140) prohibits construction of water wells within the Prohibition Zone. As additional institutional controls, a groundwater restriction will be included in the applicable federal deed and a land use covenant prohibiting the use of groundwater in all aquifers will be established between the Army and the State of California (DTSC and RWQCB).
- Implementation of institutional controls (deed restrictions, land use controls, etc.) will prevent access or use of the groundwater within the OU1 area for any purpose, **until Aquifer Cleanup Goals are met**, and will maintain the integrity of current or future remedial or monitoring system, including monitoring, extraction and injection wells.

Based on the language of the ESD as shown in the above highlighted text and the regulatory concurrence that the Aquifer Cleanup Goals (as embodied in the ACLs) have been met, it appears that the institutional controls are no longer applicable. If the regulatory agencies concur, then the Five-Year Review requirement will be completed with the current effort covering the 2012 – 2016 period.

#### **OU-1 Weed Control and Rare Plant Monitoring**

The 2015 effort will also note the locations of piperia species observed during the survey.

#### **New/Current Action Items:**

- Determine if Five-Year Review cycle is complete.

#### **Ongoing:**

- Submit draft minutes for previous BCT meeting(s)—complete through February 2015; currently in agency review.
- Submit final minutes for previous BCT meeting(s)—complete through January 2015.

**Table 1**  
**Current Deliverable Schedule**  
**Former Fort Ord, Marina, CA – March 2016**

<b>Deliverable Title</b>	<b>Submittal</b>	<b>Review Comments Due</b>	<b>Status/Remarks</b>
<i>Primary Deliverables</i>			
Final PFOA/PFOS Sampling Results Technical Memorandum Attainment Monitoring Events 1 - 4	04 March 2016	01 April 2016	EPA, DTSC, and RWQCB accepted responses to comments; Final is being prepared.
<i>Secondary Deliverables</i>			
2016 OU-1 Groundwater Monitoring Report	TBD	TBD	Beginning preparation.
<i>Completed Recent Submittals</i>			
Final Exit Strategy Technical Memorandum	March 2015	April 2015	Draft Final approved without comment. Change pages distributed 12 May 2015
Site Safety and Health Plan Update	March 2015	Not Applicable	Army approved revisions
Final UFP-QAPP Revision 1	March 2015	April 2015	Draft Final approved without comment. Change pages distributed 14 May 2015
2015 Semiannual Groundwater Monitoring Report <sup>1</sup>	07 August 2015	10 September 2015	Accepted without comment
Draft 2015 Annual Groundwater Monitoring Report <sup>1</sup>	15 October 2015	16 November 2015	Draft Accepted without comment; final submitted 03 December 2015
Final UFP-QAPP Revision 2	14 October 2015	16 November 2015	
Draft PFOA/PFOS Sampling Results Technical Memorandum Attainment Monitoring Events 1 - 4	29 January 2016	29 February 2016	Comments received and addressed

<sup>1</sup> The Semiannual Groundwater Monitoring Report is submitted as a final document but review comments are accepted. Any comments are addressed in the Annual Groundwater Monitoring Report.