

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

**OU-1 On-Post Activities for 09 September through 05 October 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		Kimberly Gettman, DTSC	
Teresa Rodgers, USACE		Edward Walker, DTSC	
Alex Kan, USACE	X	Noel Shrum, DTSC	
Bonnie McNeill, USACE		Grant Himebaugh, RWQCB	X
Cory Koger, USACE		Jeff Fenton, AMEC	X
Jonathan Whipple, USACE	X	Eric Schmidt, Ahtna	X
David Eisen, USACE		Derek Lieberman, Ahtna	X
Paul Fluck, USACE		Holly Dillon, Ahtna	X
Curtis Payton, USACE		Brad Clarke, Ahtna	
William Collins, BRAC	X	Thor Anderson, Burleson	
Melissa Broadston, Chenega <sup>1</sup>	X	Steve Crane, Kemron	X
Bart Kowalski, Chenega <sup>1</sup>	X	Erin Caruso, Gilbane	X
Cary Stiebel, Chenega <sup>1</sup>		Larry Friend, Gilbane	
Tom Ghigliotto, Chenega <sup>1</sup>	X	Kevin Siemann, Gilbane	
Maeve Clancy, EPA	X	Katie Christianson, Burleson	X
Martin Hausladen, EPA		Roy Evans, HGL	X
Min Wu, Ph.D., DTSC	X	Kevin Wierengo, HGL	
Steve Sterling, DTSC	X	Gage Dayton, Ph.D., UCSC	
Chris Duffey, USACE		Charity Meakes, USACE	X
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**

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. The Draft Work Plan for the Armstrong Ranch well demolition and the Technical Memorandum sent to the regulatory agencies in response to the recently published Health Advisory (HA) values for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are still in review.

## **OU-1 Closeout**

The Army submitted a Technical Memorandum to the regulatory agencies on 25 August regarding closure in view of PFOA and PFOS concentrations. As noted in previous meetings, two wells (MW-OU1-88-A and PZ-OU1-10-A1) do not meet the revised HA value of 70 nanograms per liter for the sum of PFOA and PFOS concentrations. Figure 10 from the Remedial Action Completion Report is attached for reference. The Technical Memorandum provides rationale to support the Army's recommendation that OU-1 proceed to closeout. DTSC and RWQCB have completed their review and informed the BCT that they concur with the Army's recommendations for closure. EPA requested an extension and is continuing to review the document. Comments are requested by 11 October 2016. EPA is still reviewing and discussing the recommendation with their Headquarters (HQ) staff. The response timeline is uncertain and the comment deadline was extended for two more weeks. EPA confirmed that their HQ is aware of the DTSC and RWQCB concurrence with the Army's recommendation to close OU-1. The regulatory agencies confirmed that the Army can proceed with destroying the OU-1 wells on the Armstrong Ranch.

The Draft Work Plan describing the Armstrong Ranch well demolition effort was distributed for review on 23 September. The regulators agreed at the September BCT meeting to try and submit comments ahead of the normal review period. If possible (based on receipt of review comments and driller availability), the Army will begin work in October (tentative start date is 20 October). The Army anticipates that the Armstrong Ranch wells and pipeline removal can be completed within approximately 3 weeks. EPA sent comments today on the draft Work Plan. DTSC and RWQCB stated that they will have no comment and will send letters to that effect soon. HGL will respond to EPA comments and strive for a start date of 20 October (next Thursday) or early the following week.

A draft Fact Sheet that will be available for interested residents was distributed to the participants for review and comment. The EPA, DTSC, and RWQCB indicated that the Fact Sheet was acceptable as written. The Army noted that the work will be performed on the Armstrong Ranch and will be visible to very few residents.

### **OU-1 Rare Plant Monitoring**

The draft report for the 2016 OU-1 Rare Plant Survey and Impact Assessment was submitted in August. HGL is responding to late comments received on the 2015 OU-1 Rare Plant Survey and Impact Assessment and expects to distribute the final errata pages by 07 October. The errata sheets are being prepared for submittal today by regular mail.

### **Five-Year Review**

HGL staff are assisting the Army in preparing the 5-Year Review report.

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

- The demolition plan for the Armstrong Ranch wells and pipeline has been added to the deliverable schedule.
- The upcoming BCT meetings are scheduled for 12 October and 08 November.

### **Ongoing:**

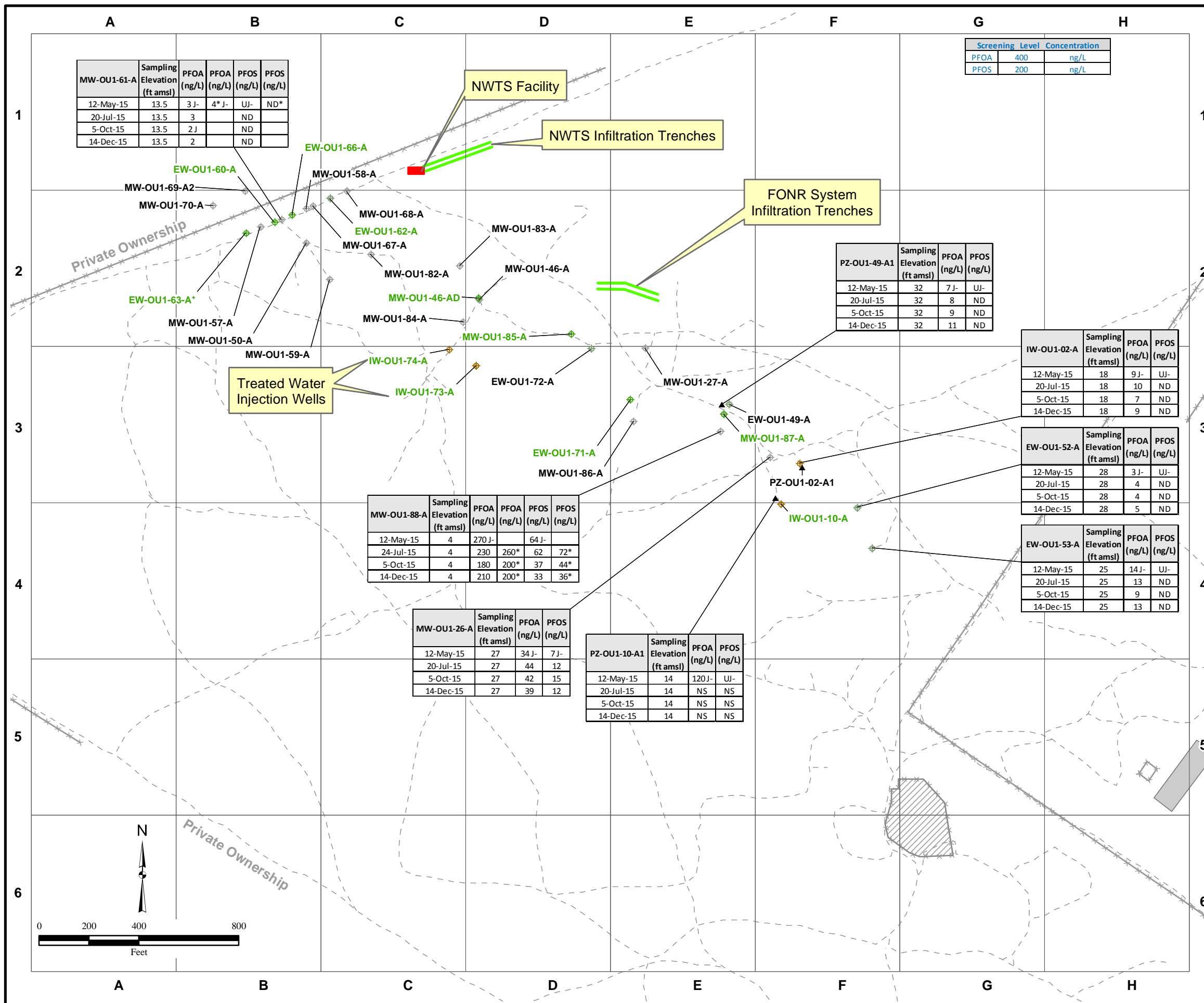
- Submit draft minutes for previous BCT meeting(s)—complete through September 2016. Awaiting EPA comments or acceptance. During the meeting, EPA approved the September minutes as written.
- Submit final minutes for previous BCT meeting(s)—complete through August 2016.

**Table 1**  
**Current OU-1 Deliverable Schedule**  
**Former Fort Ord, Marina, CA –September 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	Final submitted 16 March 2016
<i>Technical Memorandum</i>			
Attainment Monitoring Evaluation and Summary for EPA Designated Emerging Contaminants	25 August 2016	25 September 2016	In Agency review
<i>Secondary Deliverables</i>			
Final 2016 OU-1 Groundwater Monitoring Report	26 August 2016	None	Comments received, addressed, and Final submitted
<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.

**Figure 10**  
**Attainment Monitoring Summary**  
**PFOA and PFOS Concentrations**  
**in OU-1 A-Aquifer**  
**Former Fort Ord, CA**



- Legend**
- ◇ Monitoring Well
  - ◇ Extraction Well
  - ◇ Injection Well
  - ▲ Piezometer or 2-Inch Well
  - MW-OU1-70-A Well Identification
  - - - Trail/Unimproved Road
  - \*\*\* Fence
  - Treated Water Infiltration Trench
  - ▨ Former Fire Drill Area
  - Structure
  - NWTS Facility

**Notes:**  
 Well labels in green font indicate extraction or injection well.  
 Wells not sampled are not part of Attainment Monitoring Network.  
 \*=Duplicate Sample  
 +=Indicates disconnected extraction well. No longer operable.  
 ft amsl=feet above mean sea level  
 FONR=Fort Ord Natural Reserve  
 J=Sample result estimated value potentially biased low  
 J=Sample result estimated value  
 ND=Nondetect  
 NS=Not Sampled  
 ng/L=nanograms per liter  
 NWTS=Northwest Treatment System  
 PFOA=Perfluorooctanoic Acid  
 PFOS=Perfluorooctane Sulfonate  
 UJ=Not detected; Sample result biased low

\\gst-srv-01\HGLGIS\Ft\_Ord\_MSIW\OU-1\_AME\_1-4\_RS\_TM  
 (10)PFOA\_PFOS\_Concens\_Mon\_Summary\_Prelim.mxd  
 1/8/2016 TB  
 Source: HGL

