

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

**OU-1 On-Post Activities for 05 August through 08 September 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		Noel Shrum, DTSC	
Bonnie McNeill, USACE		Grant Himebaugh, RWQCB	
Cory Koger, USACE		Jeff Fenton, AMEC	
Jonathan Whipple, USACE		Derek Lieberman, Ahtna	
David Eisen, USACE		Eric Schmidt, Ahtna	
Paul Fluck, USACE		Holly Dillon, Ahtna	
William Collins, BRAC		Brad Clarke, 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	
Maeve Clancy, EPA			
Martin Hausladen, EPA		Roy Evans, HGL	
Min Wu, Ph.D., DTSC		Kevin Wierengo, HGL	
Steve Sterling, DTSC		Gage Dayton, Ph.D., UCSC	
Brad Jackson, USACE		Charity Meakes, 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**

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. There were only a few comments received on the draft 2016 Annual Groundwater Monitoring Report. These comments were resolved and the report was finalized without going to a draft final version. The final report was sent on 26 August 2016.

## **OU-1 Closeout**

The Army submitted a Technical Memorandum to the regulatory agencies on 25 August in response to the recently published Health Advisory (HA) values for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) concentrations. As noted in previous meetings, two wells do not meet the revised 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. Comments are requested by 25 September 2016.

RWQCB informed the Army before the Technical Memorandum was submitted that they support proceeding to closure for OU-1 without further monitoring or remediation of OU-1 groundwater.

The Army will abandon/destroy the remaining OU-1 wells in phases beginning with the off-Post Armstrong Ranch wells. The Draft Work Plan describing the Armstrong Ranch effort will be distributed for review this month—the target date is 26 September. If possible (based on receipt of review comments and driller availability), the Army will begin work in October. Army anticipates that the Armstrong Ranch wells and pipeline removal can be completed within approximately 3 weeks.

## **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 comments just received on the 2015 OU-1 Rare Plant Survey and Impact Assessment.

## **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.

**Ongoing:**

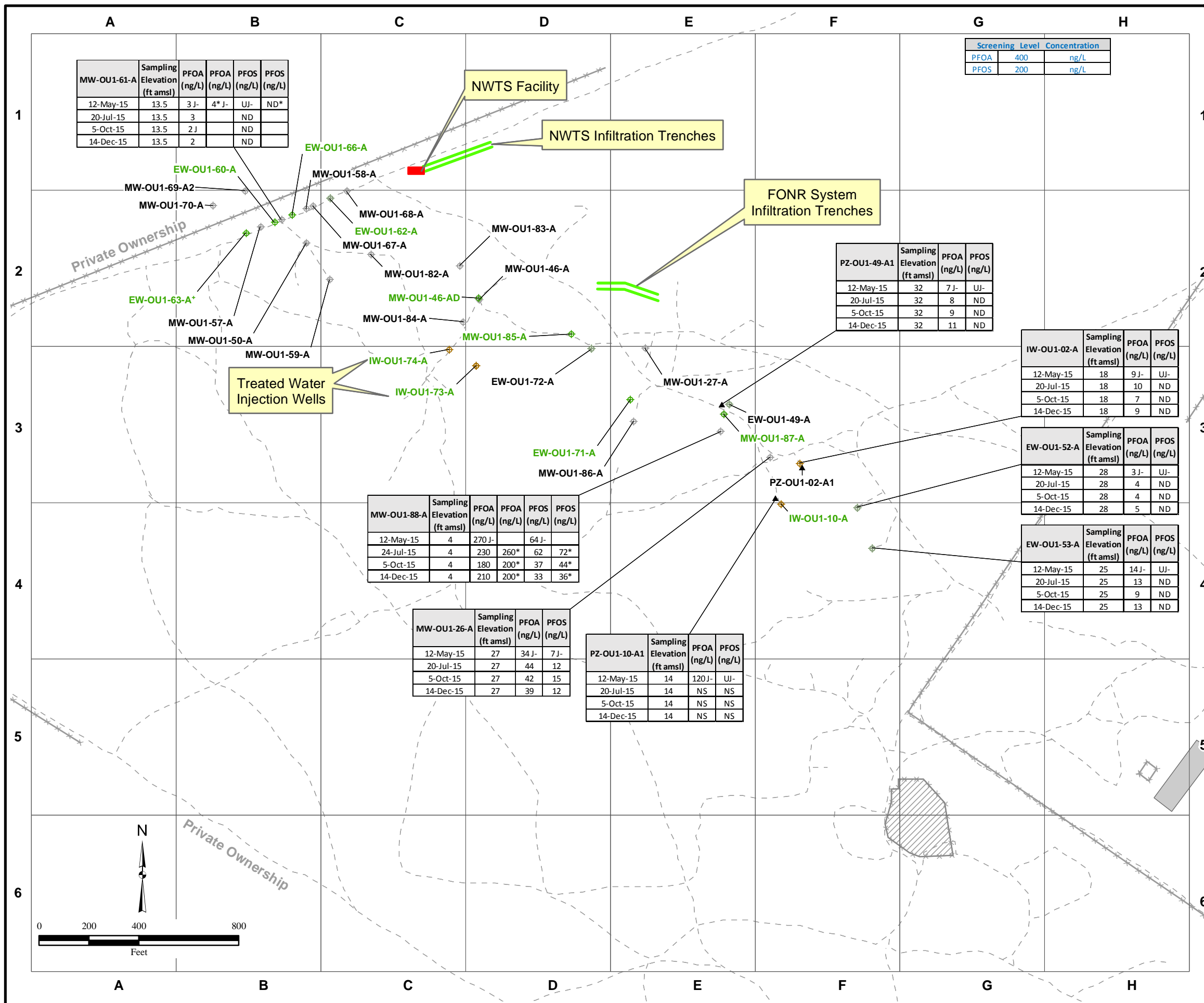
- Submit draft minutes for previous BCT meeting(s)—complete through August 2016.
- Submit final minutes for previous BCT meeting(s)—complete through August 2016.

**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

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 (10)PFOA\_PFOS\_Concens\_Mon\_Summary\_Prelim.mxd  
 1/8/2016 TB  
 Source: HGL

