HTW BCT Meeting Agenda

Friday, August 22, 2014 at 1:30 p.m.
Fort Ord BRAC Conference Room

Item	Action	Comment
Community Relations	**Status Update**	
BCT Minutes	**Status Update**	- OU1 - Basewide
OU1 Groundwater Remediation	**Status Update**	
OU1 Well and Plant Demolition	**Status Update**	
OU2 and 2/12 Treatment Systems	**Status Update**	- Soil Vapor - Treatment Plant Relocation - OU2 Treated GW Reuse WP
Other Groundwater Issues	**Status Update**	
OU2 Landfill	**Status Update**	- Operations & Maintenance - Closure
Basewide Range Assessment	**Status Update**	- Lead Reevaluation - TM for Units 10, 7, and 33
Site 39 Remediation	**Status Update**	- Habitat Restoration
FFA Schedule	**Status Update**	- Document Schedule
Calendar Update	**Update**	- Next meeting: Tuesday, 9/23 @ 1:30 pm

U.S. Army Community Outreach Update

Long Term Actions Underway:

1. 2013 Annual Report was mailed 6AUG14
2. Develop report: Analysis of 2013-2014 Community Involvement Program and Analysis of 2013 Community Survey Results. Draft report to be issued December 2014.

Recent Activities:

1. 17JUL Provided annual munitions safety awareness training offer, via letter, to local contractors and agencies.
2. Mid AUG Finalized 2014 Prescribed Burn fact sheet.
3. 15AUG Provided annual Munitions Safety/Awareness presentation for York School (225 faculty, students, and staff)

Upcoming Activities:

1. TBD Provide Munitions Safety presentation to Fort Ord Bicycle, Equestrian Trails Assistance (BETA) organization
2. TBD Provide Munitions Safety presentation to Fort Ord Equestrian Center
3. TBD AUG: U.S. Environmental Protection Agency Technical Services for Community Assistance (TASC) contractor, SKEO, to (1) review Site 2/12 RI/FS Addendum, (2) develop report summary and fact sheet, and (3) hold community comment/review meeting.
4. 23AUG Community Involvement Workshop—munitions, prescribed burns, and ESCA
5. 26AUG Technical Review Committee— munitions, prescribed burns, and ESCA
6. 29AUG Provide cleanup Information Booth at the Monterey County Fair
7. TBD September Cleanup Bus Tour for Naval Postgraduate School class: IT1500
8. TBD CSUMB Otter Dayz New Student Orientation
9. Mid-SEP Offer munitions safety training to local schools.
10. 25OCT Co-sponsor and participate in National Public Lands Day for the Fort Ord National Monument.

STATUS: RESPONSE to COMMUNITY COMMENTS (RTC)

AR Number	Title/Subject	Status
OE-0809A	Comments submitted by community group member, Mike Weaver, Fort Ord Community Advisory Group - on the Draft Final BLM HQ South Buffer, Munitions and Explosives of Concern, Remedial Action, Technical Information Paper, Former Fort Ord, California	In progress
OE-01812.3	Comments submitted by Mike Weaver, Fort Ord Community Advisory Group—on the Draft Final, Prescribed Burn 2013, MRS-BLM Units 7 and 10, After-Action Report, Former Fort Ord, Monterey County, California	In progress
OE-0802A.3	Comments submitted by Mike Weaver, Fort Ord Community Advisory Group—on the Draft Final Track 2 Remedial Investigation/Feasibility Study, BLM Area B and Munitions Response Site 16, Former Fort Ord, California	In progress
BW-2674.2	Comments submitted by Mike Weaver, Fort Ord Community Advisory Group - on the Draft Technical Memorandum Evaluation of Lead Concentrations at Selected Sites, Former Fort Ord, California	In progress
ESCA-0267.2	Comments submitted by community member, Gail Youngblood, on the Group 2 Proposed Plan, CSUMB Off-Campus MRA, FORA ESCA RP	In Progress/Part of CSUMB Off-Campus Group 2ROD Responsiveness Summary
ESCA-0267.3	Comments submitted by community group member Mike Weaver, Fort Ord Community Advisory Group, on the Group 2 Proposed Plan, CSUMB Off-Campus MRA, FORA ESCA RP - at the June 19, 2013 public meeting	In Progress/Part of CSUMB Off-Campus Group 2 ROD Responsiveness Summary
OE-0793.4	Comments submitted by community member, Mike Weaver, Fort Ord Community Advisory Group, on the Group 2 Proposed Plan, CSUMB Off-Campus MRA, FORA ESCA RP	In Progress/Part of MRS-34 ROD Responsiveness Summary

Fort Ord Operable Unit 1 Update
Groundwater Remediation, Well Destruction, and Treatment Plant Decommissioning
Marina, California
Base Closure Team Meeting
1:30 p.m., 22 August 2014
Prepared by HydroGeoLogic, Inc.

Attendees: (to be revised after meeting)

Individual	Attended?	Individual	Attended?
James Specht, USACE		Grant Himebaugh, RWQCB	
Teresa Rodgers, USACE		Edward Ticken, AMEC	
Chris Goddard, USACE		Jeff Fenton, AMEC	
Alex Kan, USACE		Derek Lieberman, Ahtna	
Bonnie McNeil, USACE		Brad Clark, Ahtna	
Cory Koger, USACE		Holly Dillon, Ahtna	
William Collins, BRAC		Kevin Ghalambor, Burleson	
Melissa Broadston, Chenega[1]		Peter Kelsall, CB&I	
Caleb Schneider, Chenega[1]		Steve Crane, Gilbane	
Bart Kowalski, Chenega[1]		Erin Caruso, Gilbane	
Cary Stiebel, Chenega[1]		Larry Friend, Gilbane	
Lewis Mitani, EPA		Roy Evans, HGL	
Martin Hausladen, EPA		Kevin Wierengo, HGL	
Franklin Mark, DTSC			
Min Wu, Ph.D., DTSC			
Edward Walker, DTSC			
X = attended in person or by telephone; blank indicates absent from the meeting			

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

OU-1 Treatment Plant Operations

HGL reported the Northwest Treatment System (NWTS) operated continuously from 7 July 2014 through 14 August 2014. Extraction wells EW-OU1-60-A and EW-OU1-66-A are operating and total pumping from those wells is approximately 12.5 gallons per minute. EW OU1 71 A, MW-OU1-87-A, and IW-OU1-10-A remain operable and will be temporarily restarted to collect performance monitoring samples in September 2014.

Since system startup in 2006, the NWTS has pumped approximately 211 million gallons of groundwater and removed approximately 6.0 pounds of total volatile organic compounds, primarily trichloroethene (TCE). An estimated 0.2 pound of TCE has been removed since the NWTS 18 September 2013 sampling event.

OU-1 Groundwater Quality Data

In accordance with the Uniform Federal Policy (UFP)-Quality Assurance Project Plan (QAPP), HGL collected the following samples from monitoring wells and the NWTS on 27 June 2014:

MW-OU1-87-A	MW-OU1-88-A	NWTS Effluent
MW-OU1-61-A	NWTS Midpoint	

Unvalidated sampling results were presented and discussed at the July Base Closure Team (BCT) meeting. Validated results have since been received and the results were unchanged. MW-OU1-61-A remains the only well exceeding the TCE 5.0 micrograms per liter (μg/L) Aquifer Cleanup Level (ACL) in OU-1 with a TCE concentration of 5.7 μg/L (and 5.4 μg/L in the duplicate sample from this location). Tables 1A and 1B show the TCE and cis-1,2-dichloroethene concentrations, respectively, found in the extraction wells and treatment system. Figure 1.2 in Attachment 1 shows the TCE concentration contour corresponding to the ACL. The next planned sampling event—see Table 2 for sampling locations—will occur during the first week in September 2014.

Reporting/Federal Facility Agreement Schedule

All scheduled submittals have been made for primary and secondary deliverables. The status of submitted and anticipated reports for 2014 is summarized in Table 3. The Draft Well Destruction and Treatment Plant Demolition Completion Report was submitted on 11 August 2014 for regulatory agency and public review. Comments are due on 16 September 2014.

OU-1 Weed Control and Rare Plant Monitoring

The U.S. Fish and Wildlife Service required that the third year of rare plant monitoring be completed at the former well destruction sites and this survey was completed between 25 April 2014 and 02 May 2014. Additional monitoring was performed in May and June during the well destruction effort at well sites destroyed within the Fort Ord Natural Reserve. HGL is currently preparing the 2014 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results Report.

Site Exit/Closure Strategy

TCE concentrations have met or are approaching the aquifer cleanup level at all OU-1 monitoring wells. The strategy is based on demonstrating that the cleanup objectives of the Record of Decision (ROD) regarding human health protectiveness have been met and, therefore, the ROD cleanup goals have been attained. A technical memorandum will be prepared to present the case for OU-1 closure based on cleanup progress to date. The human health risk corresponding to Chemical of Concern concentrations observed at the site have met the human health protectiveness objectives for several years. The technical memorandum will include recommendations for performing attainment monitoring that incorporate existing data to the maximum extent. The memorandum will be presented to the regulators for review and comment.

Well Destruction and Treatment Plant Demolition

As of 17 July 2014, all wells for which right of entry (ROE) was obtained have been destroyed (81 wells in total) and the two inactive OU-1 groundwater treatment plants have been demolished. As discussed at previous meetings, the ROE for the Armstrong Ranch property has not yet been obtained—consequently the timetable for destroying these 14 wells and removing approximately 1,500 feet of associated pipeline remains uncertain. Figure 1.2 in Attachment 1 shows the locations of the destroyed wells within OU-1. The Draft Well Destruction and Treatment Plant Demolition Completion Report was submitted on 11 August 2014 for regulatory agency and public review.

Action Items:

- The Army will obtain Right of Entry agreements for Armstrong Ranch
- HGL will prepare a technical memorandum (TM) to present the case for OU-1 closure in accordance with the strategy described above. The deliverables schedule will be updated to include this TM.
- HGL will prepare and submit the draft 2014 FONR Impact Assessment and Habitat and Rare Plant Species Survey Results report.

Ongoing:

- Submit draft minutes for previous BCT meeting(s)—complete through July 2014.
- Submit approved final minutes for previous BCT meeting(s) — complete through July 2014.

Fort Ord HTW BCT Meeting
22 August 2014

Fort Ord Operable Unit 1
Groundwater Remediation, Well Destruction, and Treatment Plant Decommissioning

ATTACHMENT 1

Table 1A

TCE in OU-1 FONR Groundwater Remediation System – Performance Monitoring

BCT Meeting for Former Fort Ord – 22 August 2014

	FONR Extraction Well (listed from south to north)						Boundary Extraction Well (from west to east)				NWTS		
Began:	**Nov-10**	**Oct-07**					**Jul-06**						
Date	**IW-10**	**MW-87**	**EW-71**	**MW-85**	**MW-46AD**		**EW-63**	**EW-60**	**EW-66**	**EW-62**	**INFLUENT**	**MIDPOINT**	**EFFLUENT**
							TCE (µg/L)						
11/9/07	Used as monitoring well until pump installed in October 2010. Pumping began 03 November 2010.	**16**	**13**	**19**	**14**		ND	ND	1.7	ND	**11**	ND	ND
1/18/08		**11**	**11**	**8.9**	**8.2**		ND	ND	1.2	ND	**6.0**	ND	ND
3/18/08		**11**	**14**	**6.7**	**5.8**		ND	0.29	1.5	ND	**5.6**	ND	ND
5/27/08		**9.7**	**18**	2.5	**6.1**		ND	ND	1.8	ND	3.9	ND	ND
7/21/08		**9.1**	**14**	4.4	3.4		ND	0.78	1.4	ND	3.6	ND	ND
9/29/08		**9.3** J	**15** J	4.3 J	2.9 J		ND	0.90 J	1.7 J	ND	3.8 J	0.19 J	ND
12/1/08		**5.8**	**11**	2.6	1.6		ND	0.82	0.91	ND	2.7	0.35 J	ND
1/26/09		**5.9**	**10**	2.2	1.2		ND	0.48 J	0.78	ND	2.4	ND	ND
3/9/09		**5.8**	**9.9**	2.1	1.2		ND	0.95	0.86	ND	2.7	ND	ND
6/11/09		**6.9**	**11**	2.4	1.5		ND	0.88	1.7	ND	2.6	0.14 J	ND
9/15/09		**6.8**	**9.4**	1.7	0.78		ND	inactive	1.1	0.036 J	2.3	0.35 J	ND
12/14/09		**6.9**	**7.5**	0.84	not sampled		not sampled	inactive	0.94	not sampled	2.3	0.65 J	ND
3/22/10		**7.2**	**8.5**	0.62	0.55		inactive	ND	0.90	inactive	2.3	ND	ND
6/21/10		**7.4**	**6.5**	0.90	0.40 J		inactive	0.86	0.58	inactive	2.1	ND	ND
9/20/10		**7.7**	**6.6**	0.83	0.35 J		discontinued	0.63	0.49 J	inactive	2.3	not sampled	ND
12/16/10	**5.2**	**6.9**	**5.2**	0.58	0.28 J		discontinued	0.72	0.42 J	inactive	2.6	0.18 J	ND
3/7/11	**5.1**	**6.0**	4.6	0.55	0.60		discontinued	0.87	0.42 J	inactive	2.5	0.59	ND
6/7/11	4.2	**6.1**	4.0	0.78	0.63		discontinued	0.76	0.36 J	inactive	2.6	1.0	ND
9/20/11	4.5	**6.2**	4.2	1.10	0.38 J		discontinued	0.57	0.36 J	inactive	2.5	1.7	ND
12/7/11	3.8	**5.1**	3.7	not sampled			discontinued	inactive	0.27 J	inactive	1.8	2.1	0.13 J
3/15/12	3.7	**5.5**	3.8	0.70	0.23 J		discontinued	inactive	0.38 J	inactive	0.81	0.32 J	ND
9/25/12	--	**5.3**	4.4	--	--		discontinued	inactive	0.19 J	inactive	1.8	0.72 J	ND
1/8/13	--	**5.4**	--	--	--		discontinued	ND	0.19 J	inactive	1.5	--	ND
3/27/13	--	4.8	--	--	--		discontinued	ND	0.23 J	inactive	1.5	--	ND
6/26/13	--	4.4	--	--	--		discontinued	--	--	inactive	1.7	--	ND
9/18/13	--	4.7	1.9	--	--		discontinued	0.17 J	0.31 J	inactive	2.0	--	ND
12/17/13	2.8	4.2	--	--	--		discontinued	--	--	inactive	2.1	--	--
3/27/14	--	3.4 A	0.89 A	--	--		discontinued	0.22 J/A	0.29 J/A	inactive	1.7	0.92 J/A	ND A
6/27/14	--	3.7	--	--	--		discontinued	--	--	inactive	0.28	0.39 J	ND

Notes:

Italics (if used) indicate data not yet validated

Bold font indicates concentration > ACL

ACL - aquifer cleanup level

-- - Not sampled

µg/L - micrograms per liter

J - Data qualified as estimated

ND - nondetect

TCE - trichloroethene

NWTS - Northwest Treatment System

FONR - Fort Ord Natural Reserve

Blue font indicates the concentration is calculated using the weighted average of the active pumping wells.

Table 1B

cis-1,2-DCE in OU-1 FONR Groundwater Remediation System – Performance Monitoring

BCT Meeting for Former Fort Ord – 22 August 2014

	FONR Extraction Well (listed from south to north)					Boundary Extraction Well (from west to east)				NWTS		
Began:	**Nov-10**	**Oct-07**				**Jul-06**						
Date	**IW-10**	**MW-87**	**EW-71**	**MW-85**	**MW-46AD**	**EW-63**	**EW-60**	**EW-66**	**EW-62**	**INFLUENT**	**MIDPOINT**	**EFFLUENT**
	cis-1,2-DCE (µg/L)											
11/09/07	Used as monitoring well until pump installed in October 2010. Pumping began 03 November 2010.	1.9	1.6	2.3	1.70	ND	ND	ND	ND	1.3	ND	ND
01/18/08		1.20	1.40	1.00	1.20	ND	ND	0.11	ND	0.66	ND	ND
03/18/08		1.20	1.50	0.74	0.63	ND	ND	ND	ND	0.59	0.11	ND
05/27/08		0.88	2.10	0.26	0.74	ND	ND	ND	ND	0.36	0.21	ND
07/21/08		0.80	1.50	0.52	0.37	ND	ND	ND	ND	0.41	0.34	ND
09/29/08		0.99	1.60	0.54	0.30	ND	ND	0.13	ND	0.42	0.42	0.12
12/01/08		0.67	1.30	0.33	0.21 J	ND	ND	ND	ND	0.27 J	0.37 J	0.19 J
01/26/09		0.63	1.20	0.29 J	0.12 J	ND	ND	ND	ND	0.26 J	0.24 J	ND
03/09/09		0.62	1.20	0.29 J	0.13 J	ND	ND	ND	ND	0.23 J	0.26 J	ND
06/11/09		0.71	1.10	0.30 J	0.13 J	ND	ND	0.14 J	ND	0.24 J	0.28 J	ND
09/15/09		0.80	1.00	0.22 J	0.08 J	ND	inactive	0.03 J	ND	0.22 J	0.37 J	0.03 J
12/14/09		0.67	0.65	0.10 J	not sampled	not sampled	inactive	ND J	not sampled	0.21 J	0.30 J	0.11 J
03/22/10		0.67	0.79	ND	ND	inactive	ND	ND	inactive	0.20 J	0.11 J	0.13 J
06/21/10		0.67	0.53	0.14 J	ND	inactive	ND	ND	inactive	0.20 J	0.23 J	ND
9/20/10		0.66	0.46 J	ND	ND	discontinued	ND	ND	inactive	0.23 J	not sampled	ND
12/16/10	0.55	0.66	0.35 J	ND J	ND	discontinued	ND	ND	inactive	0.27 J	0.28 J	ND
3/7/11	0.37 J	0.52	0.28 J	0.11 J	ND	discontinued	ND	ND	inactive	0.23 J	0.30 J	ND
6/7/11	0.35 J	0.55	0.29 J	ND	ND	discontinued	ND	ND	inactive	0.18 J	0.31 J	0.15 J
9/20/11	0.25 J	0.46 J	0.21 J	ND	ND	discontinued	ND	ND	inactive	0.17 J	0.19 J	0.30 J
12/7/11	0.27 J	0.48 J	0.19 J	not sampled		discontinued	inactive	ND	inactive	0.16 J	0.17 J	0.23 J
3/15/12	0.15 J	0.40 J	0.22 J	0.15 J	ND	discontinued	inactive	ND	inactive	ND	0.24 J	ND
9/25/12	--	0.39 J	0.23 J	--	--	discontinued	inactive	ND	inactive	ND	0.24 J	ND
1/8/13	--	0.35 J	--	--	--	discontinued	ND	ND	inactive	0.12	--	--
3/27/13	--	0.34 J	--	--	--	discontinued	ND	ND	inactive	0.12	--	--
6/26/13	--	0.31 J	--	--	--	discontinued	--	--	inactive	0.27	--	--
9/18/13	--	ND	ND	--	--	discontinued	ND	ND	inactive	ND	--	ND
12/17/13	ND	0.19 J	--	--	--	discontinued	--	--	inactive	0.23	--	--
3/27/14	--	0.16 J/A	--	--	--	discontinued	ND A	ND A	inactive	0.21	ND A	ND A
6/27/14	--	ND	--	--	--	discontinued	--	--	inactive	ND	0.43 J	0.17 J

Notes:

Italics (if used) indicate data not yet validated

Bold font indicates concentration > ACL

ACL - aquifer cleanup level

-- - Not sampled

µg/L - micrograms per liter

J - Data qualified as estimated

ND - nondetect

TCE - trichloroethene

NWTS - Northwest Treatment System

FONR - Fort Ord Natural Reserve

Blue font indicates the concentration is calculated using the weighted average of the active pumping wells.

Table 2
OU-1 Sampling Schedule for September 2014

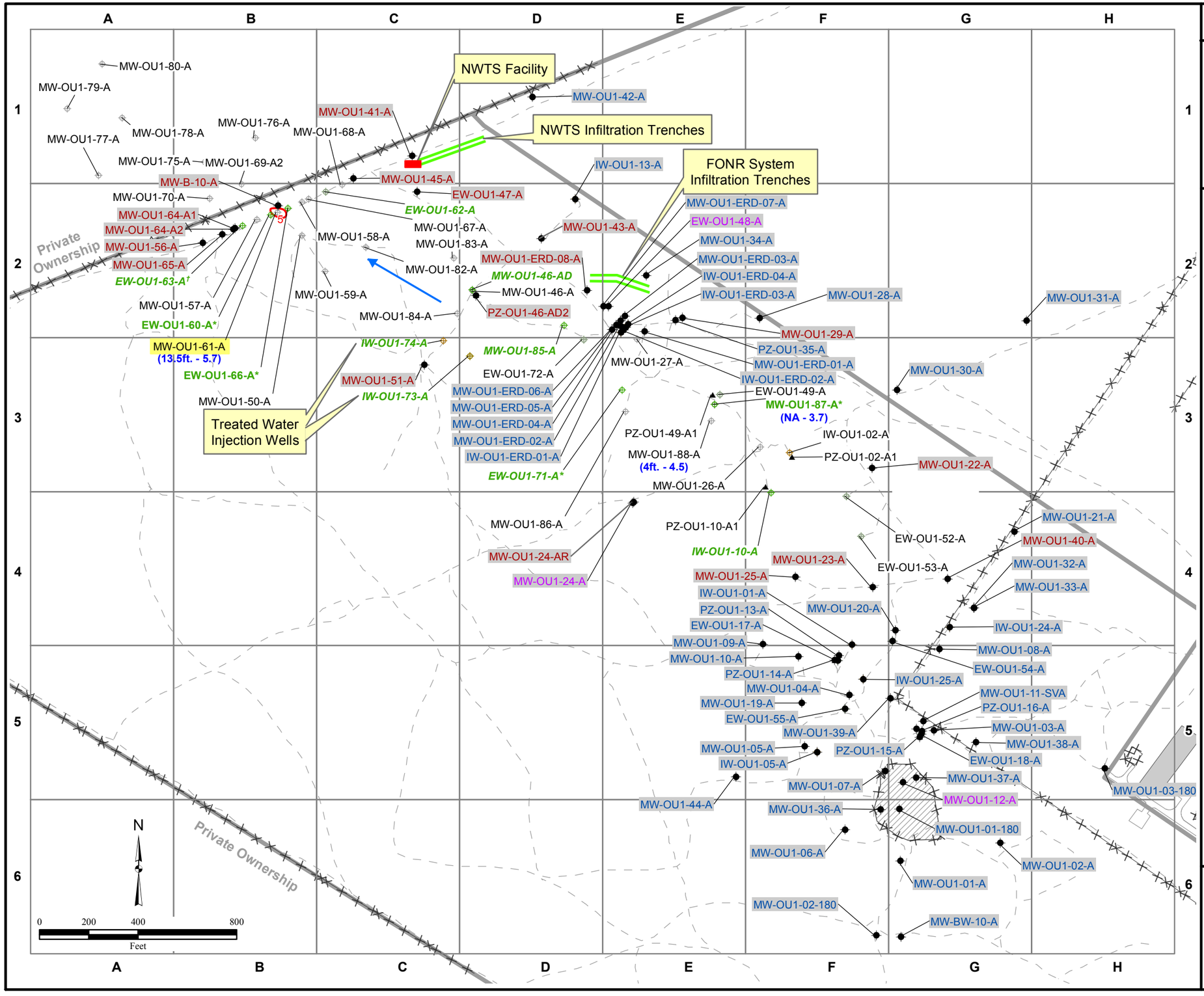
Sample Point	Location	Notes
Treatment plant		
NWTS-Influent	Treatment Plant	
NWTS-Midpoint	Treatment Plant	
NWTS-Effluent	Treatment Plant	
Extraction wells		
EW-OU1-60-A*	NW Boundary	
EW-OU1-66-A*	NW Boundary	
EW-OU1-71-A*	Central FONR	Temporarily restarted for sample collection
MW-OU1-87-A*	Central FONR	
IW-OU1-10-A*	Central FONR	
Monitoring wells		
MW-OU1-58-A	NW Boundary	
MW-OU1-57-A	NW Boundary	
MW-OU1-61-A	NW Boundary	Duplicate collected
EW-OU1-72-A	Central FONR	
MW-OU1-86-A	Central FONR	
PZ-OU1-49-A1	Central FONR	
MW-OU1-88-A	Central FONR	
MW-OU1-26-A	Central FONR	
PZ-OU1-10-A1	Central FONR	
EW-OU1-52-A	Central FONR	
EW-OU1-53-A	Central FONR	

* Operating extraction well - samples collected from port on discharge pipe.

Table 3
Current Deliverable Schedule
Former Fort Ord, Marina, California – 22 August 2014

Deliverable Title	Submittal	Review Comments Due	Status/Remarks
Primary Deliverables			
Final UFP-QAPP	May 2014	Received	Submitted 29 May 2014
Secondary Deliverables			
Final 2014 Semiannual Groundwater Monitoring Report	June 2014	August 2014	Submitted 25 June 2014
Draft Well Destruction and Treatment Plant Demolition Completion Report	August 2014	September 2014	Submitted 11 August 2014.
Draft Health & Safety Plan – OU-1 O&M/LTM	May 2014	Received	Draft accepted as Final.
Completed Recent Submittals			
Final Memorandum for Record for Optimizing Remediation Pumping	March 2012	February 2012	Accepted as final during July 2012 BCT meeting.
Final 2012 Annual and 3rd Quarter Groundwater Monitoring Report	March 2013	NA	Submitted 21 March 2013.
2013 First Quarter Groundwater Monitoring Report	June 2013	August 2013	Submitted 1 July 2013.
Preliminary Draft Work Plan for Well Destruction and Treatment Plant Demolition	5 November 2013	19 November 2013	Army comments addressed.
Preliminary Draft Health & Safety Plan – Well Destruction and Treatment Plant Demolition	5 November 2013	19 November 2013	Army comments addressed.
Preliminary Draft Health & Safety Plan – OU-1 O&M / LTM	5 November 2013	19 November 2013	Army comments addressed
Draft 2013 Annual and 3rd Quarter Groundwater Monitoring Report	January 2014	March 2014	Submitted 17 January 2014.
Preliminary Draft UFP-QAPP	26 November 2013	10 December 2013	Army comments addressed.
Draft UFP-QAPP	March 2014	May 2014	Submitted 04 March 2014
Final 2013 Annual and 3rd Quarter Groundwater Monitoring Report	April 2014	NA	Submitted 04 April 2014
Final Work Plan for Well Destruction and Treatment Plant Demolition	April 2014	NA	Submitted 04 April 2014

Figure 1.2
OU-1 FONR A-Aquifer
TCE Concentration in Groundwater
June 2014



Legend

- Well
- Extraction Well
- Injection Well
- Well Destroyed
- Piezometer or 2-Inch Well
- Groundwater Flow Direction
- MW-OU1-12-A — Well Destroyed Before 2006
- MW-OU1-21-A — Well Destroyed September 2011
- MW-OU1-40-A — Well Destroyed 2014
- MW-OU1-61-A — Location with TCE Concentrations at or above ACL (5 µg/L)
- (13.5ft. - 13) — June 2014 TCE Result (µg/L) / Sample Elevation (feet above mean sea level)
- 5 — TCE contour based on June 2014 Data
- Trail/Unimproved Road
- Fence
- Treated Water Infiltration Trench
- Property Boundary
- Building
- Former Fire Drill Area

Notes:
Units of TCE concentration are in micrograms per liter.
Wells shown with an asterisk were not used to develop contour boundaries.
Wells for which no data are posted were not sampled.
Green font indicates extraction or injection well.
Italicized font shows pumping suspended.
µg/L=micrograms per liter
†=Disconnected extraction well. No longer operable.
ACL=Aquifer Cleanup Level
FONR=Fort Ord Natural Reserve
NA=Depth is not applicable - sample is from pumping well
NWTS=Northwest Treatment System
TCE=trichlorethene
OU-1=Operable Unit 1

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8/8/2014 PDB
Source: HGL

HydroGeoLogic, Inc

Draft Basewide Remedial Investigation/Feasibility Study (RI/FS) Addendum at Sites 2/12 Report Summary, August 2014

1.0 Schedule

RI/FS Addendum issued August 11, 2014. Comments requested by October 8, 2014.

2.0 RI/FS Addendum Field Work Sample Results Summary Table

Sample Location Type	Total Number of Sample Locations	Number of Samples above Screening Levels or Aquifer Cleanup Levels (ACLs)	
		tetrachloroethene (PCE)	trichloroethene (TCE)
Sub-Slab Soil Gas	25	16	1
Indoor Air	25	2	1
Groundwater	17 new wells in addition to existing Site 12 wells	5	2
Soil	20 borings	0	0
Outdoor Soil Gas	24 nested probe locations (167 total probes)	77	33

Notes:

1. Screening levels, ACLs and their sources are described in Table 1 of the RI/FS Addendum.
2. Indoor Air sample screening level exceedances appear to be from indoor sources and not sub-slab sources.
3. COCs in groundwater results are above respective ACLs, but below screening levels.
4. During the second quarter sampling event in June 2014, there were no groundwater wells with TCE above the ACL.
5. Outdoor soil gas screening levels are intended for comparison to concentrations of chemicals in soil gas at 5 feet below ground surface (bgs); however, samples collected during the RI/FS Addendum were from 10 to 70 feet bgs and the PCE and TCE concentrations were compared to the 5-foot screening levels for evaluation purposes.

3.0 Risk Assessment Summary

Risk characterization of Site 12 indoor air conditions utilizing Retail Worker and Shopper exposure scenarios concluded non-cancer and cancer risks are at levels well below regulatory risk targets; therefore, there was no identifiable human health risk from VOCs via the vapor intrusion pathway and soil gas remediation for risk management is not warranted at Site 12 in the retail store footprints under current conditions.

4.0 Pilot Test Summary

The Soil Vapor Extraction/Air Sparge (SVE/AS) Pilot Study was performed May to June 2014 over 38 days in the southern TCE plume area and successfully removed 5 pounds of VOCs. Groundwater and soil gas TCE concentrations were reduced by one and two orders of magnitude, respectively. The Pilot Study showed that this technology is a viable option at Site 12 for a full scale remedy in the northern portion of the site, with a recommended design radius of influence (ROI) of 15 feet for AS wells and ROI of 150 ft for SVE wells with 100% overlap to ensure plume coverage.

5.0 Remedial Alternatives Summary

Since there is no unacceptable risk to indoor air and soil is not contaminated at Site 12, the remedial alternatives were developed to remediate soil gas for protection of groundwater and to continue to remediate groundwater. Recommended remedial goals include revising the PCE groundwater ACL to meet the Federal and State maximum contaminant level (MCL; 5 µg/L) and develop PCE and TCE soil gas

cleanup levels using Henry's Law calculations (TCE 1,000 µg/m^3 and PCE 1,800 µg/m^3 based on groundwater ACLs). Remedial alternatives are summarized below, with Alternatives 3 and 4 satisfactorily meeting the nine criteria identified by the USEPA RI/FS Guidance under CERCLA.

Alternative	Soil Gas Actions	Groundwater Actions	Cost (millions)
1	None	Extract and treat	$ 5.87
2	Monitored Natural Attenuation	Extract and treat	$ 4.46
3	Extract and treat	Extract and treat, air injection in the upper aquifer zone	$ 3.55
4	Extract and treat	Extract and treat, additional extraction wells in the upper aquifer zone	$ 3.60

6.0 Decision Document

An appropriate CERCLA decision document prepared in accordance with applicable guidance will identify the selected remedy. The CERCLA decision document will also affirm that the selected remedy is expected to fulfill statutory and regulatory requirements along with regulatory and community acceptance of the selected remedy.

The Army proposed to the regulatory agencies that an Explanation of Significant Differences (ESD) to the 1997 Basewide ROD (instead of a ROD Amendment) would be appropriate since the remedial alternatives are associated with the existing groundwater remedy. USEPA indicated it would seek legal counsel on this.

Former Fort Ord Groundwater Treatment Systems
Operational Data and Status

BRAC Cleanup Team Meeting, August 22, 2014

Table 1: OU2 and Sites 2/12 GWTP Treatment Statistics as of July 31, 2014

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
OU2				
July 2014	24,753,960	555	95.7	1.7
Total since October 1995	6.306 Billion			763
Sites 2/12				
July 2014	7,500,800	168	100.0	0.42
Total since April 1999	1.758 Billion			465

Table 2: July 2014 – OU2 Analytical Results at TS-OU2-INJ

COC	Discharge Limit (µg/L)	Sample Date/ Analytical Results
		7/21/2014
1,1-DCA	5.0*	0.2
1,2-DCA	0.50	ND
1,2-DCP	0.50	ND
Benzene	0.50	ND
CT	0.50	ND
Chloroform	2.0*	0.11
cis-1,2-DCE	6.0*	ND
Methylene Chloride	0.50	ND
PCE	0.50	ND
TCE	0.50	ND
VC	0.10	ND

NOTES:

* Discharge limits for low carbon affinity compounds were increased to the Aquifer Cleanup Level (ACL).

ND The analyte was not detected above the limit of quantitation.

Table 3: July 2014 – Sites 2/12 Analytical Results at TS-212-INJ

COC	Discharge Limit (µg/L)‡	Sample Date / Analytical Results
		7/1/2014
1,1-DCE	6.0	ND
1,2-DCA	0.50	ND
1,3-DCP†	0.50	ND
Chloroform	2.0	ND
cis-1,2 DCE	6.0	0.11
PCE	3.0	ND
TCE	5.0	ND
VC	0.10	ND

NOTES:

ND The analyte was not detected above the limit of quantitation.

NS not sampled.

† The reported value is the sum of both cis- and trans-isomers.

‡ Discharge limits are the ACLs for injection over the plume.

Table 4: July 2014 Key Events for OU2 and Sites 2/12 GWTS						
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
		1	**2**	**3** OU2 GWTP shutdown for 3 hours due to a fault in OU2 XS Pump #1 (pump P410) VFD, drive reset and switched to operation of pump P420.	**4**	**5**
6	**7**	**8** Replaced SW INJ Pump #2 (Pump P520 pump) and put into operation.	**9**	**10** OU2 GWTP shut down for 16 hours due to bad switching module in SCADA wiring. Faulty wiring replaced.	**11**	**12**
13	**14** Started operation of EW-OU2-14-A due to unexpected TCE concentration above the ACL from 2Q14 GWM.	**15**	**16**	**17**	**18**	**19**
20	**21** Confirmation sample of EW-OU2-14-A, TCE below ACL, continue to operate well based on QAPP decision rules.	**22**	**23**	**24**	**25**	**26** OU2 GWTP shut down for 7 hours due to operator error.
27	**28** OU2 GWTP shut down for 6 hours due to communication problems. Switching module in the GWTP radio repaired.	**29** Prep meeting for the three EW pump replacements.	**30** Vehicle accident damaged high point influent line vault lid (#4E) corner of Imjin Pkwy and Abrams Dr in Marina Heights fence.	**31**		

August 2014 Scheduled Events for OU2 and Sites 2/12 GWTS

- August 4-5: Replaced failed pumps at EW-OU2-05-A, EW-OU2-12-A, and EW-OU2-16-A. EW-OU2-16-A still not operational due to suspected electrical issue with above ground starter mechanism, assessment in progress.
- GWTP sampling.

Table 5: AES Document Submittals - Status Summary

No documents were submitted during the reporting period.

Table 6: July 2014 OU2 Extraction Well Status (as of July 31)

Well Identification	Comments	Select COC Concentrations (µg/L) 2Q 2014†				
		TCE	PCE	1,2-DCA	VC	CT
Western Network						
EW-OU2-01-A	Offline due to low concentrations, sampled with PDBs^	Not Sampled				
EW-OU2-02-A	Online to capture western TCE plume	0.50	ND	ND	ND	ND
EW-OU2-03-A	Offline due to low concentrations, sampled with PDBs‡	Not Sampled				
EW-OU2-04-A	Online to capture western TCE plume	1.6	ND	ND	ND	ND
EW-OU2-05-A	Adjacent to MW-OU2-40-A*, offline due to pump failure on 11/5/13, replaced 8/4/14 & online	Not Sampled				
EW-OU2-06-A	Adjacent to MW-OU2-40-A*	4.3	0.31	ND	ND	ND
EW-OU2-01-180	No pump in well, sampled with PDBs	**6.9**	ND	ND	ND	ND
Total gallons extracted: 5,895,170						
Eastern Network						
EW-OU2-07-A	Offline due to low concentrations‡	Not Sampled				
EW-OU2-08-A	Offline due to low concentrations^‡	Not Sampled				
EW-OU2-09-A		1.3	0.55	**0.54**	0.050	ND
EW-OU2-10-A		2.4	1.2	**0.91**	0.083	ND
EW-OU2-11-A	Offline due to biofouling, screen damaged, sampled with PDBs.	1.1	0.65	0.18	ND	ND
EW-OU2-12-A	Offline due to pump failure 3/15/14, replaced 8/4/14 & online	Not Sampled				
EW-OU2-13-A		**9.3**	2.6	**2.2**	ND	ND
EW-OU2-02-180	Offline due to breach in well casing identified in August 2012	Not Sampled				
Total gallons extracted: *2,710,390*						
Shoppette						
EW-OU2-05-180		**5.9**	0.50	ND	ND	ND
EW-OU2-06-180	Offline due to pump failure in February 2012	Not Sampled				
EW-OU2-16-A	Offline due to pump failure 5/17/14, replaced 8/5/14 with remaining suspected electrical issue, still offline	Not Sampled				
Total gallons extracted: 6,654,900						
CSUMB						
EW-OU2-14-A**	Previously offline due to low concentrations, online 7/14/14 due to 2Q 2014 TCE results	**11.5**	0.49	ND	ND	0.17
	Confirmation sample collected 7/21/2014	1.6	0.48	ND	ND	ND
EW-OU2-15-A	Offline due to low concentrations, pump failure	Not Sampled				
Total gallons extracted: 433,500						
Landfill						
EW-OU2-03-180		**11.9**	0.61	ND	ND	0.21
EW-OU2-04-180	Offline due to low concentrations‡	Not Sampled				
Total gallons extracted: 6,903,000						
Bunker Hill						
EW-OU2-07-180	No pump in well, sampled with PDBs	2.1	1.2	ND	ND	ND
EW-OU2-08-180	Offline due to low concentrations	0.86	0.22	ND	ND	ND
EW-OU2-09-180	OUCTP Upper 180-Foot Aquifer remedy§	ND	0.25	ND	ND	ND
Total gallons extracted: *2,157,000*						
Total OU2 gallons treated: 24,753,960						

NOTES:

ND The analyte was not detected above the limit of quantitation.

† Concentrations in **bold** type equal or exceed the ACL.

‡ Meets QAPP decision rules to be removed from the GWMP.

^ Sampled annually per QAPP decision rules.

* MW-OU2-40-A concentration of TCE = 16.2 µg/L (1Q2014).

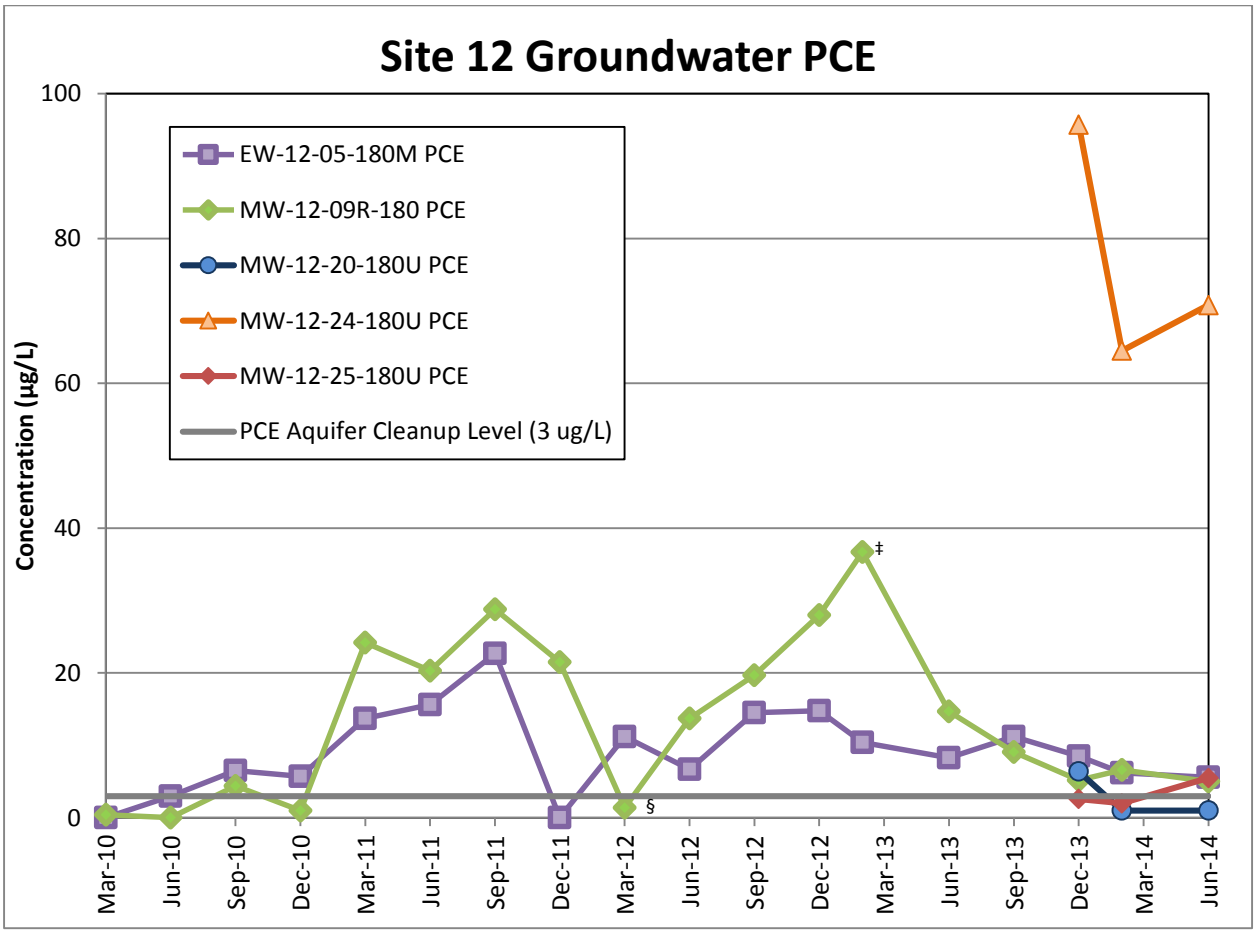
** Adjacent well MW-OU2-45-A concentration of TCE = 0.18 µg/L.

§ cis-1,2-DCE also detected at 2.2 µg/L.

Table 7: July 2014 Sites 2/12 Extraction Well and Select Monitoring Well Status (as of July 31)

Well Identification	Comments	Select COC Concentrations (µg/L) 2Q 2014†			
		TCE	PCE	cis-1,2-DCE	VC
EW-12-05-180M		4.7	**5.6**	1.2	ND
EW-12-06-180M		2.7	0.50	0.92	ND
EW-12-07-180M	Offline due to low concentrations	2.7	0.58	0.82	ND
EW-12-03-180U	Offline due to low concentrations, sampled with PDBs‡	Not Sampled			
EW-12-03-180M	Offline due to low concentrations, sampled with PDBs	2.6	0.62	1.3	ND
EW-12-04-180U	Offline due to low concentrations, sample with PDBs‡	Not Sampled			
EW-12-04-180M	Offline due to low concentrations, sampled with PDBs*	Not Sampled			
MW-12-09R-180	MW east of and upgradient from EW-12-05-180M	0.42	**5.0**	ND	ND
MW-12-14-180M	MW north of and upgradient from EW-12-05-180M	2.1	0.39	0.13	ND
MW-12-17-180U	New MW east of EW-12-06-180M	2.2	0.52	ND	ND
MW-12-24-180U	New MW adjacent to MW-12-09R-180	4.3	**70.8**	ND	ND
MW-12-25-180U	New MW east of MW-12-09R-180	ND	**5.5**	ND	ND
MW-12-20-180U	New MW northeast of MW-12-09R-180	0.20	1.0	ND	ND
Total 2/12 Extraction Well gallons treated: 7,500,800					

NOTES:
ND The analyte was not detected above the limit of quantitation.
† Concentrations in **bold** type equal or exceed the ACL.
‡ Sampled annually per QAPP decision rules.
* Meets QAPP decision rules to be removed from the GWMP.



§ The PCE detection from MW-12-09R-180 in March 2012 was flagged with a J- qualifier which indicates a low bias.
‡ The PCE detection from MW-12-09R-180 in March 2013 was flagged with a J+ qualifier which indicates a high bias.

SheaHomes
Caring since 1881

August 14, 2014

William K. Collins
Fort Ord BRAC Environmental Coordinator
P.O. Box 5008, Building #4463 Gigling Road
Monterey, CA 93944-5008

Mr. Collins,

We are in receipt of your letter dated July 16, 2014 (attachment 1), which details the Requirements for using the Army's Operable Unit 2 (OU2) treated groundwater for construction purposes. As you are aware, Shea Homes is currently underway with the Residential 1C project and we are anticipating the start of several other construction projects within the former Fort Ord (Figure 1). These projects will involve significant grading and underground utility operations that will require construction water. Following review of the *Explanation of Significant Differences, No Further Actions for Munitions and Explosives of Concern, Landfill Gas Control, Reuse of Treated Groundwater, Designation of Corrective Action Management Unit (CAMU) Requirements as Applicable or Relevant and Appropriate Requirements (ARAR's) Operable Unit 2, Fort Ord Landfills, Former Fort Ord, California* (Attachment 2), it is clear that the Army intended that this treated water be used for dust control, soil compaction and other construction activities requiring non-potable water.

MCP & Shea Homes, on behalf of our contractors and sub-contractors, hereby submits the following letter work plan for the access, transport, store and reuse of treated water from the OU2 discharge pipeline point of connection (See Figure 2 for approximate location of the existing 2" ball valve at Army Corp. water line)

1. ***Access:*** We will erect a transportable 12,000 gallon portable water tower (Figure3) adjacent to the 2" ball valve (Figure 2) east of the brick building and connect to this valve to supply the tower's storage tank. At that point, 4,000 gallon water truck will maneuver directly beneath the tower to fill for use during construction activities.

2. ***Transport:*** Loaded water trucks will travel on & off-site to transport treated OU2 water to the various projects requiring water for dust control, soil compaction and other non-potable construction activities (See Figure 1).

3. ***Store:*** The water tower will draw & store water from the Army designated point of connection for standard, 4,000 gallon on-road water trucks to fill from (See Figure 3).

2630 Shea Center Drive
PO Box 5064
Livermore, CA 94551

925.245.3600 T

Shea Homes Limited Partnership, an independent member of the Shea family of companies.

www.SheaHomes.com

4. *Reuse:* The treated water will be distributed via water truck onto the soil within building pad, pavement subgrade and underground utility trenches for dust control and soil compaction for the projects listed within Figure 1.

To satisfy additional requirements detailed in the Army's letter dated 7-16-14, Shea Homes and our contractors agree to abide by the following directives listed in your letter:

a. Each water truck used to access, transport and distribute the treated water shall clearly display signage indicating that the water is non-potable and not for human consumption.
b. The point of connection shall include a backflow prevention device to prevent water flowing back into the OU2 discharge pipeline.
c. The pipeline and water tank shall be inspected daily by myself (the on-site project manager for Shea Homes) and by the contractors accessing and distributing the treated water to the various construction activities of the individual projects.
d. Shea Home will take measures to ensure the point of connection is secured from tampering and vandalism. Mainly, this will be achieved through maintaining a fenced jobsite and constant vigilance.

Marina Community Partners, LLC ("MCP") is the owner of the property where the OU2 treated water connection is located. Shea Homes, as MCP's general contractor is undertaking the following residential and commercial projects currently underway and/or tentatively scheduled for construction in the next 12-24 months (See Figure 1 for locations):

A.	The Dunes Residential 1C Project:	Start: 6/23/14	Finish: 1/31/16
B.	The Dunes Retail 1B – Ph 1 Project:	Start: 8/25/14	Finish 11/1/15
C.	9th Street Multi-Modal Corridor:	Start: 10/1/14	Finish: 5/31/15
D.	The Dunes Retail 1B – Ph 2 Project:	Start: 7/1/15	Finish: 8/30/17 *
E.	The Dunes restaurant Project:	Start: 4/1/15	Finish: 6/15/16 *

*(* - Tentative Start and Finish Dates)*

Based on our schedules for the aforementioned projects (attachments A-C) and the anticipated work operations within each project, we expect that at the height of demand we will consume 96,000 gallons per day per project (See Figure 4). This heavy demand will occur only during initial earthwork operations and will eventually decrease during underground utility installation, concrete flatwork and parking lot construction.

MCP/Shea Homes recognizes the importance of maintaining the stability of the Army's OU2 treated groundwater system and that this proposed diversion cannot create any adverse effects on the system. The diversion of treated water will not:

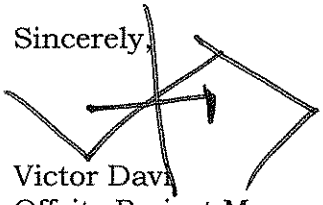
1. Change the rate at which groundwater is extracted and treated at OU2 or Sites 2/12.
2. Change the volatile organic compound (VOC) removal efficiency of the GWTP.
3. Add or change the Sources and concentrations of chemical in the aquifer.
4. Change the hydraulic control of the groundwater plumes.

Should we be informed by the Army that the volume of water diverted by our workplan changes the effectiveness and/or competence, or causes an adverse impact to the OU2 water system, we will discontinue our diversion process immediately. It should be noted that it is our plan to use the treated OU2 water as much as is allowable and feasible. We intend to draw water from nearby potable sources and that the use of the treated water source will supplement that source.

In summary, MCP/Shea Homes believes this is a mutually beneficial arrangement, where the developer/contractor is able to utilize a precious resource that was clearly designated by the Army for utilization in the execution of the aforementioned construction operations.

If you have any questions or need additional information, do not hesitate to contact me. We appreciate your consideration in this matter and look forward to working with you.

Sincerely,



Victor Davi
Offsite Project Manager
Shea Homes
victor.davi@sheahomes.com
831.901.0072

CC: Wendy Elliott, MCP
Rick Kraushar, Shea Homes
Chris Stump, Shea Homes

ATTACHMENT 1

DEPARTMENT OF THE ARMY
FORT ORD OFFICE, ARMY BASE REALIGNMENT AND CLOSURE
P.O. BOX 5008, BUILDING #4463 GIGLING ROAD
MONTEREY, CALIFORNIA 93944-5008

REPLY TO
ATTENTION OF

July 16, 2014

Fort Ord BRAC Field Office

Victor Davi
Offsite Project Manager
Shea Homes
100 12th Street
Marina CA 93923

Mr. Davi:

The Army understands you are interested in using the Army's Operable Unit 2 treated groundwater. The Army's ability to allow use of the treated water is conditional on the provisions described below and in the *Explanation of Significant Differences, No Further Action for Munitions and Explosives of Concern, Landfill Gas Control, Reuse of Treated Groundwater, Designation of Corrective Action Management Unit (CAMU) Requirements as Applicable or Relevant and Appropriate Requirements (ARARs), Operable Unit 2, Fort Ord Landfills, Former Fort Ord, California* (ESD), Administrative Record No. OU2-656. The ESD allows for reuse of treated water at no cost to the Army from the Operable Unit 2 (OU2) groundwater treatment plant (GWTP) for non-potable construction purposes such as dust control and soil compaction.

The water user shall comply with all of the requirements of the above referenced ESD (AR OU2-656). The treated OU2 water shall be taken from only two locations: (1) the discharge pipeline that conveys the treated water from the OU2 GWTP to the Sites 2 and 12 GWTP or (2) from the discharge pipeline that conveys the treated OU2 water from the OU2 GWTP to injection well IW-OU2-03-180.

Before any treated water can be taken for reuse or before connecting to the OU2 pipeline, the water user shall submit a workplan to the Army. This workplan shall describe in detail the methods to be used to access, transport, store, and reuse treated water from the OU2 discharge pipeline and shall clearly indicate the end use of the treated OU2 water. The Army will coordinate the work plan with the regulatory agencies. The water user shall address all comments provided by the Army and property owner(s) and will obtain final written approval from the Army and property owner(s) before connection to the OU2 discharge pipeline.

The water user shall acquire approval in writing from the property owners who may be affected by diversion or transport of the treated OU2 water. The Army will not allow reuse of the treated OU2 water without approval from affected property owners. The water user shall also be responsible for reporting OU2 water leaks or spills to the Army and state and local authorities and for cleaning up any water leak or spill due to diverting or transporting of the treated OU2 water. In addition, the Army shall not be liable for any property damage on the affected property owners' property related to reuse of the treated water by the user.

The use of treated OU2 water shall not interfere with remediation operations occurring at the former Fort Ord, including OU2 and Sites 2 and 12. The following are prohibited:

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1) using the water for potable use;
2) changing the rate at which groundwater is extracted and treated at OU2 or Sites 2 and 12;
3) changing the volatile organic carbons (VOC) removal efficiency of the GWTPs;
4) adding or changing the sources and concentrations of chemicals in the aquifers; and
5) changing the hydraulic control of the groundwater plumes.

If the water user decides to install a pipeline to divert OU2 water from the OU2 discharge pipeline, additional requirements will be applied including but not limited to the following:

1) A backflow prevention device shall be installed to prevent water flowing back into the OU2 discharge pipeline.
2) The water user shall ensure the pipeline is secured from all tampering and vandalism.
3) The pipeline and water tank shall be inspected daily during operation to ensure there is no leak or spill. Installing an automatic water shut off and alert system is recommended.
4) The water user shall receive approval from all property owners that may be affected by the installation of the pipeline. All approval must be in writing and shall be submitted to the Army for verification before installing a pipeline.

The treated OU2 water shall only be used for non-potable purposes and the water user shall comply with all applicable laws and regulation regarding use of non-potable water. All associated infrastructure and conveyances shall have sufficient signage and labeling to indicate the water is non-potable and not for human consumption. It is the water user's responsibility to check with state and local agencies for laws and regulations governing the use of non-potable water. The Army shall not be held liable if the water user fails to comply with state or local regulations regarding reuse of the treated OU2 water.

The water user shall not use the treated OU2 water other than for the end use indicated in the approved workplan. The Army may request or impose additional and stricter requirements during the use of the OU2 water. All restrictions and requirements shall be followed at all times unless the Army notifies the water user otherwise in writing. The water user shall be responsible for all costs associated with diverting or transporting treated OU2 water. The Army will not be liable for any costs associated with diverting or transporting treated OU2 water.

The Army can terminate the use of OU2 water immediately at any time without any reason or advance notice. The water user shall compensate the Army if the OU2 discharge pipeline is damaged or if remediation operations at OU2 and/or Sites 2 and 12 are compromised due to use, diversion, or transport of the treated OU2 water.

By using the treated OU2 water, the water user understands that treated OU2 water is contaminated with VOCs; however, it has been treated to meet regulatory requirements allowing subsurface injection or other authorized reuse. Concentrations of VOCs below the regulatory requirements are likely still present in the OU2 water after treatment, and no treatment has been conducted for bacteria or other microorganisms. The water user shall also accept all of the risks and responsibilities associated with use of the treated OU2 water. The water user shall not hold the Army liable for any present or future damages caused by use, diversion, or transport of treated OU2 water.

There are two additional requirements which must be met if the water user is executing a project that is directly or indirectly funded by any agency of the United States government:

1. The federal agency Contracting Officer must submit a written statement to the Army that states that the water user has not been paid in any form for materiel procurement of the water at market or other cost rates that are higher than the costs of using the OU2 GWTP water.

2. The federal agency Contracting Officer must submit a written statement to the Army that he or she concurs with the utilization of the treated water in the execution of the project.

We look forward to working with you to ensure the conditions discussed above are implemented in order to provide you with OU2 treated water for non-potable construction purposes such as dust control and soil compaction. A copy of this letter has been provided to Martin Hausladen, U.S. Environmental Protection Agency, Min Wu, California Department of Toxic Substances Control, and to Grant Himebaugh, California Regional Water Quality Control Board. If you have any questions please contact Teresa Rodgers at (916) 557-6624.

Sincerely,

William K. Collins

William K. Collins
Fort Ord BRAC Environmental Coordinator

ATTTACHMENT 2

CONSTRUCTION WATER DECLARATION

RECEIVED APR 01 2014

EXPLANATION OF SIGNIFICANT DIFFERENCES NO FURTHER ACTION FOR MUNITIONS AND EXPLOSIVES OF CONCERN, LANDFILL GAS CONTROL, REUSE OF TREATED GROUNDWATER, DESIGNATION OF CORRECTIVE ACTION MANAGEMENT UNIT (CAMU) REQUIREMENTS AS APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs), OPERABLE UNIT 2, FORT ORD LANDFILLS, FORMER FORT ORD, CALIFORNIA

United States Department of the Army *June 16, 2006*

INTRODUCTION AND STATEMENT OF PURPOSE

Site Name and Location

The former Fort Ord is located near Monterey Bay in northwestern Monterey County, California, approximately 80 miles south of San Francisco. The former military installation comprises approximately 28,000 acres adjacent to the cities of Seaside, Sand City, Monterey, and Del Rey Oaks to the south and Marina to the north. The Union Pacific Railroad and California State Route 1 pass through the western portion of the former Fort Ord, separating the beachfront from the rest of the base. Laguna Seca Recreation Area and Toro Regional Park border former Fort Ord to the south and southeast, respectively, as well as several small communities such as Toro Park Estates and San Benancio (Figure 1). Operable Unit 2 (OU2) comprises approximately 150 acres at the surface (the Fort Ord Landfills) and associated groundwater contamination plumes in the northwest portion of the former Fort Ord. The Fort Ord Landfills consisted of Areas A through F. Area A (the north landfill), located north of Imjin Parkway, has been clean closed (i.e., all refuse material has been physically removed) and is no longer considered to be part of the Fort Ord Landfills. Areas B through F (the main landfill) encompass approximately 120 acres and are located south of Imjin Parkway (Figures 1 and 2).

Identification of Lead and Support Agencies

Environmental investigations began at Fort Ord in 1984 at Fritzsche Army Airfield (now the Marina Municipal Airport) under California Regional Water Quality Control Board (RWQCB) cleanup or abatement orders 84-92, 86-86, and 86-135. In 1986, further investigations began at the Fort Ord Landfills, and the preliminary site characterization was completed in 1988. In 1990, Fort Ord was placed on the United States Environmental Protection Agency's (USEPA's) National Priorities List (NPL), primarily because of volatile organic compounds (VOCs) found in groundwater beneath the Fort Ord Landfills. Since that time, environmental investigations and remedial actions at the former Fort Ord have been conducted under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, and the Fort Ord Landfills area was designated as OU2. A Federal Facility Agreement (FFA) was signed in 1990 by the U.S. Department of the Army (Army) as lead agency, the USEPA, the Department of Toxic Substances Control (DTSC, a part of the

SITE HISTORY, CONTAMINATION AND SELECTED REMEDY

Site History and Contamination Problems

From its opening in 1917, Fort Ord primarily served as a training and staging facility for infantry troops. In the 1940s, major construction of the Main Garrison was performed. From 1947 to 1975 Fort Ord was a basic training center. After 1975, the 7th Infantry Division was assigned to Fort Ord. In 1991 Fort Ord was selected for closure and the post was officially closed in 1994. Since then the former Fort Ord has been going through a property transfer process for public benefit and economic development uses. Remedial investigations and cleanup actions at the former Fort Ord have been performed and documented since 1986.

The Fort Ord Landfills were comprised of two adjacent landfill areas of approximately 150 acres total in the northwest portion of former Ford Ord (Figure 1). Both were used for residential and commercial disposal of waste generated at the former Fort Ord. No waste from outside of the former Fort Ord was placed in the Fort Ord Landfills. The north landfill (Area A, approximately 30 acres) was used from 1956 to 1966. The main landfill (Areas B through F, approximately 120 acres) was operated from 1960 to 1987 and may have received a small amount of chemical waste (such as paint, oil, pesticides, electrical equipment, ink, and epoxy adhesive) along with household and commercial refuse. The main landfill facility stopped accepting waste for disposal in May 1987 as interim closure of the facility began (Shaw, 2005a). From that time to closure of the installation in 1994, waste was transported to and disposed at the Monterey Peninsula Landfill, located in Marina, California.

The Fort Ord Landfills area was designated as Operable Unit 2 (OU2) when a remedial investigation identified the presence of volatile organic compounds (VOCs) associated with landfilled materials in groundwater beneath the site. Based on frequency of detection and measured concentrations, trichloroethene (TCE) was the most significant groundwater contaminant detected during the remedial investigation. Remedial actions have been implemented to address contaminated groundwater and ongoing remediation of groundwater associated with OU2 is being conducted in accordance with the OU2 ROD (Army, 1994) and the Explanation of Significant Differences, Operable Unit 2, Fort Ord Landfills (OU2 ESD; Army, 1995).

In accordance with the OU2 ROD (Army, 1994) and the Explanation of Significant Differences, Area A, Operable Unit 2, Fort Ord Landfills (Area A ESD; Army, 1996), the Army completed removal and consolidation of refuse from the north landfill into the main landfill in October 1998 and installation of an engineered cover system for the main landfill in December 2002 as part of the closure process for the Fort Ord Landfills.

At the Fort Ord Landfills, the perimeter fence line (Figure 2) was initially designated as the boundary for landfill gas (LFG) compliance monitoring in accordance with ARARs[2] and LFG monitoring probes were installed inside the fence line. Monitoring of these probes commenced in June 2000. Fixed-based laboratory results and field measurements showed methane

[2] California Integrated Waste Management Board (CIWMB) Regulations for Solid Waste Landfills, Title 14 California Code of Regulations (CCR), Chapter 3, Article 7.8 (this Article was repealed and replaced by Title 27 CCR, Chapter 3, Subchapter 4, Article 6 [Sections 20920 – 20937]).

concentration exceeding the 5% regulatory standard in most probes. The Army performed an additional investigation in August 2000 and sampling results showed that methane was detectable extending out about 70 feet from the fence line on the east side of Area F. All probes were monitored again in September and December 2000, with the results again showing methane concentrations exceeding the 5% standard. In response the Army installed additional probes at locations around the outer parts of the OU2 property beyond the fence line in April and May 2001. Analytical results for these probes indicated that methane concentrations at the property boundary were less than the 5% standard, with the exception of the east side of Area F.

The Army also performed ambient air monitoring in October 2000, November 2000, September 2001 and September 2002 to determine landfill gas dispersion in ambient air on the east side of Area F. The results showed trace concentrations of volatile organic compounds (VOCs) in air between the Fort Ord Landfills and the nearest housing (IT, 2002a; IT, 2002c; Shaw, 2004). These data were used to complete a screening level human health risk assessment (HHRA) for nearby residences[3]. The HHRA was updated after each monitoring event and attached as an appendix to each ambient air monitoring report. The HHRA concluded that there is a health risk[4] for long-term exposure[5] to VOCs in ambient air; however, the Army determined the data evaluated in the HHRA were limited and additional monitoring would be appropriate. Additional ambient air monitoring was conducted on a quarterly basis in 2003 and the HHRA updated to include these data and evaluate specifically landfill-related risk. The updated HHRA indicated the Fort Ord Landfills are not a significant contributor of VOCs in ambient air or risk to downwind receptors (Shaw, 2005b).

Selected Remedy

The following remedies for the Fort Ord Landfills were selected in the OU2 ROD:

- A cover system to (1) prevent rainwater from percolating through the landfilled areas into the underlying aquifers; (2) collect and remove methane offgas (if necessary); and (3) prevent exposure of sanitary waste in the landfills to the surrounding environment.

- Institutional controls (i.e., deed restrictions) to be placed on the property to ensure that the integrity of the cover system is maintained and prevent potential direct exposures of VOCs to the environment or people associated with future use of the site.

- Institutional controls (i.e., deed restrictions) that prevent the use of groundwater within the contaminant plume.

- Groundwater extraction and treatment, to be monitored on a regular basis and adjusted as warranted by the performance data collected during operation. Additionally, treated groundwater will be discharged to the A-aquifer and Upper 180-foot aquifer by means of recharge systems or reused at the surface.

[3] California State University Monterey Bay (CSUMB) housing to the east of Area F.
[4] Health risk was determined by comparison to regulatory thresholds for cancer risk and non-cancer hazards.
[5] Risk was evaluated under two long-term exposure scenarios: reasonable maximum exposure (30 years) and average exposure (6 years).

Three previous ESDs to the OU2 ROD have been completed:

- *Explanation of Significant Differences, Operable Unit 2, Fort Ord Landfills* (OU2 ESD, Army 1995). The OU2 ESD finalized the cleanup standard for the Upper 180-foot Aquifer to be consistent with those of the A-aquifer to facilitate the coordinated cleanup strategy for both aquifers.

- *Explanation of Significant Differences, Area A, Operable Unit 2, Fort Ord Landfills* (Area A ESD, Army 1996). The Area A ESD addressed excavation and consolidation of refuse from the north landfill (Area A) into the main landfill (Areas B through F).

- *Explanation of Significant Differences, Consolidation of Remediation Waste in a Corrective Action Management Unit, Operable Unit 2, Fort Ord Landfills* (CAMU ESD, Army 1997). The CAMU ESD addressed using remediation waste as foundation layer material instead of "clean" (uncontaminated) soil as described in the OU2 ROD.

BASIS FOR THE EXPLANATION OF SIGNIFICANT DIFFERENCES

The Army has prepared this ESD to address:

- The potential presence of munitions and explosives of concern (MEC) within the Landfill Parcels (Figure 2)[6];

- Implementation of landfill gas control measures;

- Alternative reuse of treated groundwater; and

- Clarification that the CAMU ESD is intended to designate CAMU regulations as ARARs for the Fort Ord Landfills, but not to designate the Fort Ord Landfills as a CAMU.

No Further Action for Munitions and Explosives of Concern

A review of existing records and available information, including the Archives Search Report (ASR), ASR Supplement No. 1 and the draft Revised ASR (*December 1993, November 1994 and December 1997*, respectively), the Literature Review Report (*January 2000*), working maps, Fort Ord Training Facilities Maps, and associated interviews from various ordnance-related community relations activities, indicates the area of the Landfill Parcels was not used for military munitions training. Because the Army does not believe there is significant risk associated with MEC at the Landfill Parcels, no change is proposed for the selected remedy. This ESD affirms that the consideration of the potential for MEC does not change the prior determination that the remedy is protective of human health and the environment. The Army has evaluated the potential presence of MEC within the Landfill Parcels herein.

[6] The Landfill Parcels consist of covered landfill Areas B through F, the land between these Areas and a buffer zone around the outer perimeter of the Areas (Figure 2).

Munitions Related Information

The reuse of the former Fort Ord following transfer of property increases the possibility of the public being exposed to explosive hazards. In November 1998, the Army agreed to evaluate military munitions at the former Fort Ord in an Ordnance and Explosives Remedial Investigation/Feasibility Study (OE RI/FS)—now termed the Munitions Response RI/FS (MR RI/FS)—consistent with CERCLA. In April 2000, an agreement was signed between the Army, the USEPA, and the DTSC to evaluate MEC at the former Fort Ord subject to the provisions of the Fort Ord FFA.

The Department of Defense has adopted the term MEC in place of two different terms used by the Army in past Military Munitions Response Program documents to indicate explosive munitions items: ordnance and explosives (OE) and unexploded ordnance (UXO). MEC, which distinguishes specific categories of military munitions that may pose unique explosives safety risks, means: (A) Unexploded ordnance (UXO), as defined in 10 U.S.C. 101(e)(5)(A) through (C); (B) Discarded military munitions (DMM), as defined in 10 U.S.C. 2710 (e)(2); or (C) Munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. 2710 (e)(3), present in high enough concentrations to pose an explosive hazard. For the purposes of the basewide Military Munitions Response Program being conducted for the former Fort Ord and this ESD, MEC does not include small arms ammunition .50 caliber and below.[7] The Department of Defense has also adopted the term "munitions debris" in place of "OE scrap." Munitions debris consists of remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, fins) remaining after munitions use, demilitarization, or disposal. Munitions debris do not pose an explosives safety risk.

Landfill Cover Construction Summary

Area A was excavated between July 1996 and January 1997. Approximately 585,000 cubic yards (cy) of refuse was excavated from Area A and was placed and compacted as part of the general fill in Areas B, C, D, and F of the Fort Ord Landfills. An additional 376,000 cy of "clean" (uncontaminated) material was excavated and used as backfill at other former Fort Ord remedial action sites, as well as for the vegetative layer and foundation layer of the Fort Ord Landfills. A number of military munitions-related items were found during excavation at Area A; however, they were removed before excavated materials were consolidated into the main landfill (IT, 2001a). Excavation of perimeters of the main landfill (Areas B through F) began in 1996 and continued intermittently through 2002 during construction of the engineered cover of the main landfill. Additionally, remediation waste placed in the main landfill in accordance with the CAMU ESD was screened for MEC. When excavation and filling was conducted as part of landfill closure operations, a UXO safety specialist provided ordnance avoidance support as specified in work plans and required under U.S. Army Corps of Engineers specifications.

[7] In accordance with U.S. Army Engineering and Support Center, Huntsville, Ordinance and Explosives Center of Expertise guidance on small arms determinations, small arms ammunition (i.e., caliber .50 and smaller) present a very low risk to the public because: 1) caliber .50 and smaller rarely contain explosive projectiles, and 2) a deliberate effort must be applied (using a tool resembling a firing pin) to a very specific and small point (the primer) to make the round function.

The engineered cover system at the Fort Ord Landfills consists of a foundation layer, a geomembrane and a vegetative layer. The foundation layer covering the refuse is a minimum of two feet thick and is comprised of soil from Area A, material generated from clearing and grubbing, soil stripped from the existing cover and landfill perimeter, and soil from other former Fort Ord remediation sites. A low hydraulic conductivity geomembrane made of linear low-density polyethylene (LLDPE) was installed over the foundation layer. A two-foot thick vegetative cover was installed over the LLDPE membrane that consists of clean dune sand, clean soil excavated from the site, and grubbed soil from the former landfill covers. The final grade was planted with native plants. The final cover was graded to provide for drainage over the vegetative cover. The cover system will be maintained in perpetuity to prevent exposure of waste material in the landfills to the surrounding environment.

Investigations and Construction Activities Outside of the Landfill Cells

Several invasive studies and construction activities were performed along the perimeter and outside of the landfill cells within the Landfill Parcels. About 306 test pits were advanced in 1994 to determine refuse limits of the Fort Ord Landfills (HLA, 1995). Munitions debris, described as "2-inch by 6-inch inert ordnance debris," was encountered at about two feet below ground surface in test pit TR-OU2-081, located along the northeastern boundary of Area D.

Extensive trenching was conducted between 1995 and 2000 to install about 5,000 linear feet of conveyance piping within the Landfill Parcels. A UXO safety specialist was present during all trenching activities and munitions debris and MEC were not reported to have been found during trenching activities that occurred in the Landfill Parcels (IT, 2001c; IT, 2002b). Groundwater conveyance piping passes between Areas B and C and extends along the northwest and northern boundary of Area D and exits the Landfill Parcels along the northeast boundary of Area F.

Incidental Munitions

Incidental military munitions were found at four locations within the Landfill Parcels as shown on Figure 2. One MEC item and three munitions debris items were found by IT/Shaw while working within the Fort Ord Landfills.

- Mine, antitank, practice, M20 (munitions debris), October 3, 2005.
- Detonating cord, PETN (MEC), July 23, 2003.
- Grenade, hand, practice, MKII (munitions debris), February 3, 2000.
- Rocket, 3.5 inch, praotice, M29 series (munitions debris), May 6, 1996.

The low number and type of items found and their distribution over a large area does not indicate military training involving military munitions occurred in the Landfill Parcels. Additionally, reviews of historical records, including Archives Search Reports (USAEDH, 1993, 1994, 1997) and the OE RI/FS Literature Review (HLA, 2000) indicate the Landfill Parcels area was not used for military munitions related training.

Because of Fort Ord's history as a military base, the Army acknowledges the possibility that military munitions could be encountered anywhere at the former Fort Ord. Because there is no evidence of MEC which would pose a threat to human health and the environment at the Landfill Parcels and the landfill cover system will be maintained in perpetuity, no remedial action is necessary regarding MEC. In the future, should any ordnance-related item be found within the Landfill Parcels, the Army will take an appropriate immediate action (i.e., removing the found item, recording the incident), and within 90 days of the discovery, submit a plan for appropriate follow-on action to the USEPA and the DTSC for consultation, pursuant to Section 7.7(b) of the Fort Ord FFA.

LANDFILL GAS CONTROL

The OU2 ROD states one of the primary remedial objectives for shallow soil and buried waste at the Fort Ord Landfills is to prevent methane offgas generated by decomposition of waste in the landfill (if necessary), through collection and treatment. The OU2 ROD also cites the following regulations as ARARs for the selected remedy as relevant to control of landfill gas (LFG):

- California Integrated Waste Management Board (CIWMB) Regulations for Solid Waste Landfills, Title 14 California Code of Regulations (CCR), Chapter 3, Article 7.8.[8] The CIWMB Regulations set forth the performance standards and the minimum substantive requirements for LFG monitoring and control as it relates to proper closure, postclosure maintenance and ultimate reuse of solid waste disposal sites to assure that public health and safety and the environment are protected from pollution due to the disposal of solid waste.

- Monterey Bay Unified Air Pollution Control District (MBUAPCD) Regulation II (New Sources) Rule 207 – Review of New or Modified Sources, and Regulation X (Toxic Air Contaminants) Rule 1000 – Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants. The MBUAPCD Regulations set forth the standards and requirements for sources emitting or having the potential to emit toxic air contaminants (TACs) and/or carcinogenic toxic air contaminants (CTACs) to assure that public health and welfare are protected.

The LFG monitoring program at the Fort Ord Landfills was established in accordance with the CIWMB Regulations, which state specifically that:

- The concentration of methane gas migrating from the landfill must not exceed five percent by volume in air at the facility property boundary or an alternative boundary.

- Trace gases shall be controlled to prevent adverse acute and chronic exposure to toxic and/or carcinogenic compounds.

After consultation with the MBUAPCD, the Army determined Rule 207 and Rule 1000 apply to LFG mitigation, but not to the existing landfill. Under Rule 207, Best Available Control Technology (BACT) is required for any new or modified permit unit with a potential to emit specific VOCs or combustion by-products over the levels specified in Table 4.1.1 of Rule 207.

[8] This Article was repealed and replaced by Title 27 CCR, Chapter 3, Subchapter 4, Article 6 (Sections 20920 – 20937).

Data collected at the Fort Ord Landfills indicate a low generation rate for LFG and low VOC concentrations; therefore, the Fort Ord Landfills are not anticipated to emit pollutants in quantities exceeding the maximum emission thresholds listed in Table 4.1.1 of Rule 207. Because of the anticipated low emissions of the Fort Ord Landfills and small size of the associated treatment facilities, the permitting is primarily controlled by Rule 1000. The LFG treatment system is a source that has the potential to release very low levels of TACs or CTACs.

Landfill Gas Pilot Test

Based on the results from perimeter probe and ambient air monitoring through May 2001, a LFG extraction and treatment system was implemented as a pilot test on the east side of Area F for three purposes:

- To reduce methane to less than five percent along the landfill perimeter.
- To reduce VOCs in ambient air east of Area F adjacent to residential areas.
- To determine the design requirements for a permanent LFG mitigation system.

Installation and operation of the pilot test system was done in accordance with the *Draft Landfill Gas Pilot Test Work Plan, Contractor Quality Control Plan, Sampling and Analysis Plan, Operable Unit 2 Landfill, Former Fort Ord, California* (IT, 2001b). The pilot test system was started up in June 2001 and has successfully maintained methane concentrations in compliance probes on the east side of Area F at below the five percent standard. Results of the pilot test are presented in the *Draft Final Evaluation Report, Landfill Gas Pilot Test, Operable Unit 2 Landfills, Former Fort Ord, California, Revision 0* (Shaw, 2005d).

The LFG Pilot Test Evaluation Report determined the system could continue to be operated effectively and maintain compliance with Title 27 CCR; however, the report recommended 1) expanding the system to further reduce the risk of VOCs (vinyl chloride, in particular) migrating to groundwater and 2) converting from treatment with granular activated carbon (GAC) and potassium permanganate ($KMnO_4$) to a thermal treatment unit (TTU) because the TTU would be more effective for treating LFG and may be more cost effective over an extended period of LFG extraction and treatment. This ESD documents the decision to implement these recommendations and to expand or modify the OU2 LFG extraction and treatment system to include other areas of the Fort Ord Landfills, if warranted by future conditions and ARARs.

Alternative Reuse of Treated Groundwater

Portions of the former Fort Ord will be redeveloped for residential, commercial, and educational uses by property recipients. The construction of these developments will require water for dust control, soil compaction, and other construction activities. This ESD documents the decision to reuse treated groundwater from the OU2 groundwater treatment plant (GWTP) for non-potable construction purposes including, but not limited to, dust control and soil compaction.

DESIGNATION OF CAMU REQUIREMENTS AS ARARS

The CAMU ESD addressed placing excavated soil from remedial investigation sites at the former Fort Ord in the Fort Ord Landfills. The CAMU ESD used the term "designate" to describe the action of the Army, the USEPA, the DTSC and the RWQCB regarding compliance with the CAMU regulations. The intention of the CAMU ESD was to describe the manner in which the disposal component of the remedial action previously selected was being modified, including compliance with the substantive requirements of the CAMU regulations. This ESD clarifies that the Army, upon consultation with the USEPA, the DTSC and the RWQCB, designated California Code of Regulations and Resource Conservation and Recovery Act (RCRA) regulations regarding CAMUs as ARARs for the management of contaminated soil to be placed in the Fort Ord Landfills. The incorporation of the soil into the landfill cover complied with the substantive requirements of the CAMU regulations, but the Fort Ord Landfill was not formally designated as a CAMU.

DESCRIPTION OF SIGNIFICANT DIFFERENCES

NO FURTHER ACTION FOR MUNITIONS AND EXPLOSIVES OF CONCERN

Detailed disposal records are not available for the Fort Ord Landfills; however, information gathered during field activities and from other sources indicates that household and on-base commercial refuse, dried sewage sludge, construction debris, and small amounts of chemical wastes (such as paint, oil, pesticides, electrical equipment, ink, and epoxy adhesive) were placed in the landfill. Although MEC was not reportedly disposed of at the Fort Ord Landfills, military munitions items were found during removal actions at the north landfill (Area A) and Installation Restoration Program (IRP) Sites 3, 16, 17, and Site 39 Ranges 24 and 25, which were not part of the Fort Ord Landfills. These military munitions items were removed before excavated materials from these sites were consolidated into the main landfill (Areas B through F). Military munitions were not discovered during soil placement in the landfill and activities associated with the construction of the landfill cover system and OU2 groundwater pipelines, and other surface and intrusive activities, did not result in any evidence of past training activities involving military munitions. Additionally, reviews of historical records, including Archives Search Reports (USAEDH, 1993, 1994, 1997) and the OE RI/FS Literature Review (HLA, 2000) indicate the Landfill Parcels area was not used for military munitions related training.

The OU2 ROD stated that a prime remedial action objective for shallow soil and buried waste at the Fort Ord Landfills was to prevent human and environmental exposure to buried waste through engineering controls that included construction of the landfill cover system. The OU2 ROD also stated that "Institutional controls (i.e., deed restrictions) will be placed on the property to ensure that the integrity of the cover system is maintained and prevent potential direct exposures of VOCs to the environment or people associated with future use of the site." Institutional controls will be implemented when the land transfers outside of the Army's control. Although the engineered cover system and institutional controls implemented under the OU2 ROD remedy are intended to address the presence of VOCs, potential exposure to MEC is also mitigated by the remedy.

Because of Fort Ord's history as a military base, the Army acknowledges the possibility that MEC could be present in the Fort Ord Landfills; however, the Army has determined that the potential presence of MEC within the Landfills does not pose a significant risk to human and ecological receptors because the landfill refuse is covered by an engineered cover system (cap) consisting of a foundation layer (two feet of compacted soil), a low-hydraulic-conductivity layer (LLDPE geomembrane liner), and a vegetated surface layer (minimum two feet thick). The Army will also place Institutional Controls on the Fort Ord Landfills to maintain the integrity of the landfill cap and warn future owners of the property of the potential presence of MEC by placing a deed restriction on the property. The engineered cap and institutional controls will also prevent potential human exposure to MEC that may be present within the landfill.

LANDFILL GAS CONTROL

Based on the recommendations of the LFG Pilot Test Evaluation Report, the Army proposed expanding the OU2 LFG extraction and treatment system, which included installation of extraction wells around the entire perimeter and in the interior of Area F, and converting from treatment with GAC and $KMnO_4$ to a TTU. The Army's proposal was based on available data from OU2. The Army may expand or modify the OU2 LFG extraction and treatment system to include other areas of the Fort Ord Landfills, if warranted by future conditions and ARARs. Design, installation and regulatory requirements of the expanded system is described in the *Draft Final Work Plan, Landfill Gas System Expansion, Operable Unit 2 Landfills, Former Fort Ord, California, Revision 0* (Shaw, 2005c). The expanded system with the TTU began operations in April 2006.

The existing LFG extraction and treatment system on the eastern perimeter of Area F is sufficient to maintain compliance with the regulatory standards for VOC emissions and methane concentrations at the landfill boundary; however, expansion of the system will have the following additional benefits:

- LFG extraction removes VOCs generated in the Fort Ord Landfills, which may otherwise migrate to the underlying groundwater. Removing VOCs via the LFG extraction and treatment system will likely shorten the time required to achieve aquifer cleanup levels (ACLs) for OU2 and reduce long term groundwater treatment costs.

- Increased extraction of LFG will accelerate the depletion of the source and may result in shortened duration of LFG extraction and treatment.

- Replacement of GAC and $KMnO_4$ treatment with a TTU will increase the destruction efficiency for VOCs.

- Replacement of GAC and $KMnO_4$ treatment with a TTU will eliminate venting of untreated methane.

The estimated cost for the installation of the expanded system, including installation of the TTU, is $560,000, and the operations and maintenance (O&M) costs for the TTU are estimated to be

$65,000 per year[9]. The projected O&M costs for the existing LFG extraction and treatment system are $92,000 per year, which includes GAC and $KMnO_4$ changeouts, sample collection and sample analysis every 300 operating hours. The existing system is relatively O&M intensive because the small GAC and $KMnO_4$ units require frequent changeouts. The TTU requires no changeouts and can accommodate higher concentrations of VOCs in the influent with no increase in O&M costs.

A cost benefit analysis of the alternatives for LFG extraction and treatment made the following conclusions:

- It is necessary to maintain at least the existing system for regulatory compliance.
- Compared with the existing system, the expanded system using a TTU would pay for itself over ten years because of reduced O&M costs.
- The expanded system with a TTU will remove a significantly higher mass of VOCs and could shorten the duration of OU2 groundwater treatment.
- Extraction and treatment of LFG removes VOCs, including vinyl chloride, before they could potentially migrate to groundwater.
- The cost of removing VOCs from LFG with the expanded system and TTU may be significantly less than removing the same VOCs from groundwater.
- The TTU destroys methane in addition to VOCs.

After completion of start up operations, as described in the LFG System Expansion Work Plan (Shaw, 2005c), the Army will demonstrate to the USEPA that the LFG extraction and treatment system is "operating properly and successfully" in accordance with the USEPA's Guidance for Evaluation of Federal Agency Demonstrations that Remedial Actions are Operating Properly and Successfully Under CERCLA Section 120(h)(3).

ALTERNATIVE REUSE OF TREATED GROUNDWATER

The OU2 groundwater extraction and treatment system extracts groundwater contaminated with VOCs and conveys it to the OU2 GWTP where it is treated with GAC to remove the VOCs to below the permitted discharge limits.[10] The treated water is being sampled and analyzed in accordance with the Final Sampling and Analysis Plan for Operable Unit 1, Operable Unit 2 and Sites 2 and 12, dated March 3, 2004. The treated water discharge limits are less than or equal to the Maximum Contaminant Levels for drinking water and, if the concentrations of VOCs approach these discharge limits, the GAC is removed and replaced.

Treated groundwater from the OU2 GWTP will be taken from the pipeline that conveys the treated groundwater from the OU2 GWTP to the Sites 2 and 12 (2/12) GWTP, where the treated

[9] Costs for replacement of major system components are not included in this analysis.
[10] The extracted groundwater is only treated for removal of VOCs. There is no treatment for bacteria or other microorganisms.

OU2 water is mixed with treated water from Sites 2/12 prior to being piped to the Sites 2/12 infiltration gallery. Construction water trucks will be filled with treated water and will transfer it to locations of construction activities and needs as described previously. The treated groundwater will only be used for non-potable purposes and the water users shall comply with all applicable laws and regulation regarding use of non-potable water. Appropriate and sufficient signage, labeling and coloring to indicate the water is non-potable and not for human consumption will be placed on all associated infrastructure and conveyances. Use of this non-potable water will eliminate the need for potable water to be used for these purposes; however, at such time remediation of contaminated groundwater associated with OU2 is complete, treated groundwater will no longer be available for these purposes.

The cost of diverting and transporting the treated groundwater to its end use and all signage, labeling and coloring of such diversion and transport mechanisms will be borne by the water user, not the Army; therefore, there is no anticipated increase in cost for the remedy.

It is anticipated these uses of treated groundwater will not require a continuous supply of water and diversion of a portion of treated groundwater from the OU2 GWTP is expected to have negligible impact on the groundwater extraction and treatment systems at the former Fort Ord; however, to ensure this impact remains negligible, the volume of and flow rates at which treated groundwater that may be diverted for these uses will be determined by the Army, in consultation with the USEPA, DTSC and RWQCB, as specific agreements for use of the water are developed. The diversion of treated water will not:

- Change the rate at which groundwater is extracted and treated at OU2 or Sites 2/12;
- Change the VOC removal efficiency of the GWTP;
- Add or change the sources and concentrations of chemicals in the aquifers; or
- Change the hydraulic control of the groundwater plumes.

DESIGNATION OF CAMU REQUIREMENTS AS ARARS

The substantive requirements of the regulations for CAMUs are ARARs for the remediation of many CERCLA sites, especially those sites where CERCLA remediation involves the management of RCRA hazardous wastes. In the CERCLA context, CAMU requirements designated to be ARARs would be incorporated into CERCLA decision documents, rather than RCRA permits or orders. This flexibility allows for expeditious implementation of protective and cost-effective remedies at CERCLA sites. This includes remediation under CERCLA of RCRA hazardous wastes at Federal facilities on the National Priorities List, such as the former Fort Ord.

This ESD clarifies it is the intent and purpose of the CAMU ESD to designate the substantive requirements for CAMUs, as defined in CCR Title 22 and RCRA, as ARARs for the Fort Ord Landfills. Further, this ESD clarifies it was not the intent of the Army, the USEPA, the DTSC and the RWQCB to designate the Fort Ord Landfills as a CAMU, as suggested by the CAMU

ESD. There is no cost associated with this clarification and it will not result in any substantive change to the remedy.

AFFIRMATION OF STATUTORY DETERMINATIONS

With this ESD, the remedy continues to satisfy the requirements of CERCLA Section 121.

No Further Action for Munitions and Explosives of Concern

The potential presence of MEC is not considered to pose a significant risk at the closed Fort Ord Landfills. Institutional controls (deed restrictions) and engineering controls (the landfill cover) will ensure that any potential exposure pathway to human and ecological receptors is eliminated. The Army, the USEPA, and the DTSC believe that the landfill cover and associated institutional controls remain protective of human health and the environment and comply with federal and State ARARs for this remedial action.

Landfill Gas Control

Expansion of the landfill gas extraction and treatment system will maintain compliance with ARARs and potentially accelerate depletion of the sources of VOCs in Area F of the Fort Ord Landfills, which will likely shorten the duration of treatment for both LFG and groundwater at OU2. The Army may expand or modify the OU2 LFG extraction and treatment system to include other areas of the Fort Ord Landfills, if warranted by future conditions and ARARs. Additionally, installation of the TTU will result in more efficient removal of VOCs and methane. The Army, the USEPA, the RWQCB, and the DTSC believe that this approach remains protective of human health and the environment, complies with federal and State ARARs for this remedial action, and is able to be achieved in a cost effective manner.

Alternative Reuse of Treated Groundwater

Reuse of treated groundwater from the OU2 GWTP for non-potable construction purposes will be of significant benefit to the redevelopment and reuse of the former Fort Ord. Such reuse will have negligible impact on the groundwater extraction and treatment systems at the former Fort Ord. The Army, the USEPA, the RWQCB, and the DTSC believe that this approach remains protective of human health and the environment, complies with federal and State ARARs for this remedial action, and is able to be achieved in a cost effective manner.

DESIGNATION OF CAMU REQUIREMENTS AS ARARS

The Fort Ord Landfills will continue to be in compliance with ARARs for CAMUs, as described in the CAMU ESD, but are not designated a CAMU as suggested by the wording of the CAMU ESD. The Army will continue to manage the Fort Ord Landfills in compliance with all applicable regulatory requirements. The Army, the USEPA, the RWQCB, and the DTSC believe that this approach remains protective of human health and the environment, complies with federal and State ARARs for this remedial action, and is able to be achieved in a cost effective manner.

PUBLIC PARTICIPATION

A notification to the public concerning this ESD will be made in a local newspaper after signature. The OU2 ROD and this ESD are available to the public at the following locations:

- Seaside Branch Library, 550 Harcourt Avenue, Seaside, California
- California State University, Monterey Bay (CSUMB) Library Learning Complex, 100 Campus Center, Building 12, Seaside, California
- Former Fort Ord Administrative Record, Building 4463, Gigling Road, Ord Military Community, California.
- Online at www.fortordcleanup.com.

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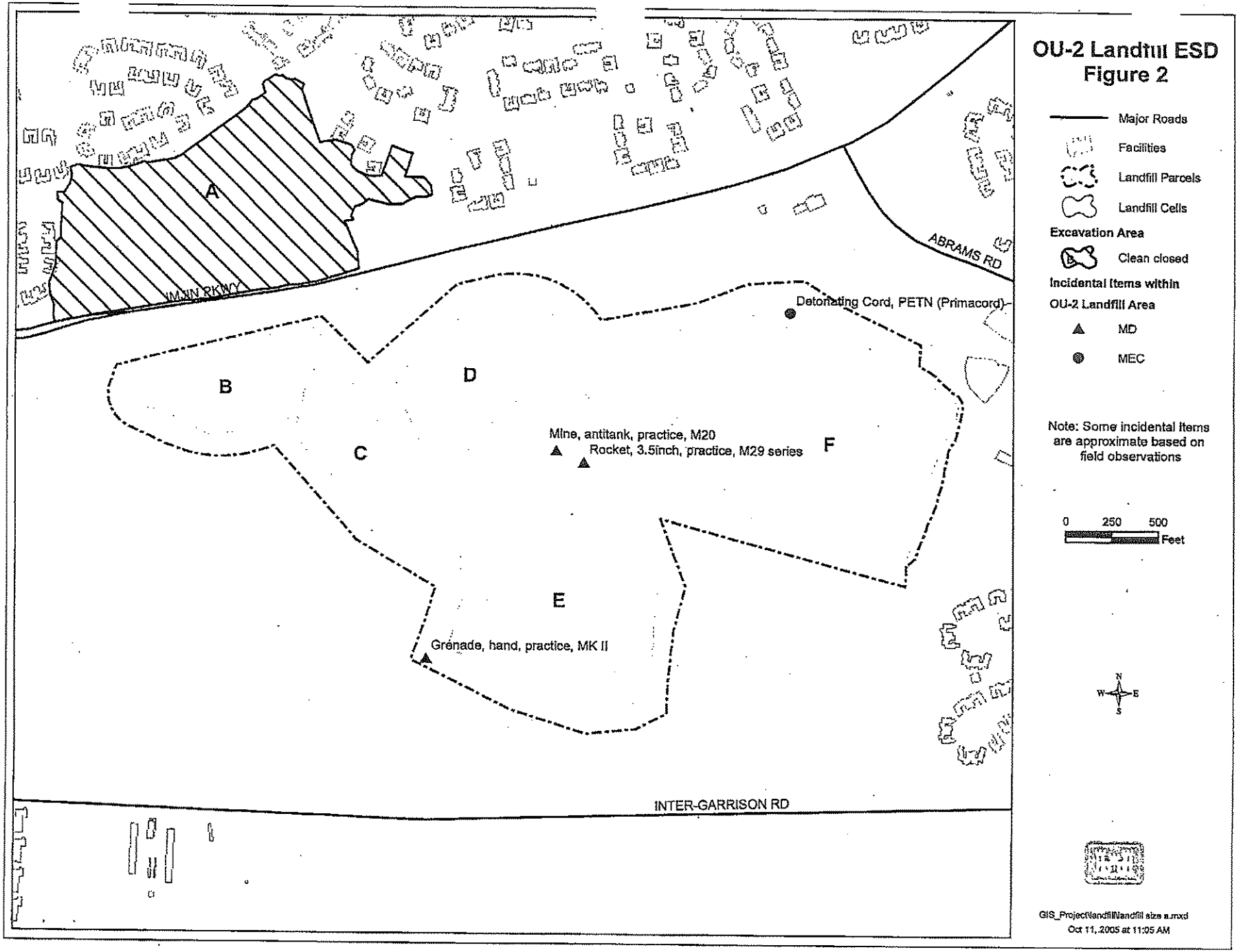
OU-2 Landfill ESD
Figure 2
Major Roads
Facilities
Landfill Parcels
Landfill Cells
Excavation Area
Clean closed
Incidental Items within
OU-2 Landfill Area
MD
MEC
Note: Some incidental items are approximate based on field observations
0
250
500
Feet
A
B
C
D
E
F
MAIN PKWY
ABRAMS RD
INTER-GARRISON RD
Detonating Cord, PETN (Primacord)
Mine, antitank, practice, M20
Rocket, 3.5inch, practice, M29 series
Grenade, hand, practice, MK II
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ATTACHMENT A - THE DUNES 1C RESIDENTIAL

1C%20-%20Residential%20Master%20Schedule

ID	O	Task Mode	Task Name	Duration	Start	Finish	Predec	Succ	Actual Start	Actual Finish	Resource Names	Notes
1			PHASE 1C RESIDENTIAL	808 days?	Tue 3/20/12	Thu 4/23/15			Tue 3/20/12	NA		
2			LAND ACQUISITION	21 days	Tue 5/27/14	Tue 6/24/14			Tue 5/27/14	NA		
6			IMPROVEMENT PLANS	155 days	Mon 3/3/14	Fri 10/3/14			Mon 3/3/14	NA		
32			Final Map	108 days	Thu 3/20/14	Mon 8/18/14			Thu 3/20/14	NA	Chris Stump	
41			Conform to Conditions of Approval	56 days	Thu 6/12/14	Thu 8/28/14			NA	NA	Chris Stump	
55			HORIZONTAL BUY OUT	111 days	Mon 4/21/14	Mon 9/22/14			Mon 4/21/14	NA	Chris Stump	
73			IMPROVEMENT CONSTRUCTION PHASE 1 & 2	27 days	Wed 4/30/14	Thu 6/5/14			Wed 4/30/14	NA		
74	✓		Pre-Bid Meeting	1 day	Wed 4/30/14	Wed 4/30/14			Wed 4/30/14	Wed 4/30/14	Rick K	
75	✓		Bid Opening	1 day	Thu 5/15/14	Thu 5/15/14			Thu 5/15/14	Thu 5/15/14	Rick K	
76	✓		Notice of Award	16 days	Fri 5/30/14	Fri 6/20/14			Fri 5/30/14	Fri 6/20/14	Brady Stephenson	
77	✓		Pre-Construction Meeting	1 day	Tue 6/17/14	Tue 6/17/14		79	Tue 6/17/14	Tue 6/17/14	Victor Davi	
78	✓		Construction Start	1 day	Wed 6/25/14	Wed 6/25/14	5,14		Wed 6/25/14	Wed 6/25/14	Victor Davi	
79	✓		Revise SWPPP	12 days	Tue 5/27/14	Wed 6/11/14	77		Tue 5/27/14	Wed 6/11/14	Victor Davi	
80	✓		Site Mobilization	1 day	Mon 6/23/14	Mon 6/23/14			Mon 6/23/14	Mon 6/23/14	Victor Davi	
81			Earthwork	20 days	Mon 6/23/14	Fri 7/18/14			Mon 6/23/14	NA		
82	✓		Clear and Grub	3 days	Mon 6/23/14	Wed 6/25/14			Mon 6/23/14	Wed 6/25/14	Victor Davi	
83	✓		Finish Pad Staking	3 days	Thu 6/26/14	Mon 6/30/14			Thu 6/26/14	Mon 6/30/14	Victor Davi	
84	✓		Earthwork / Rough Grading	4 days	Mon 6/30/14	Thu 7/3/14			Mon 6/30/14	Thu 7/3/14	Victor Davi	
85	✓		Finish Model Pads	3 days	Tue 7/1/14	Thu 7/3/14		173	Tue 7/1/14	Thu 7/3/14	Victor Davi	
86	✓		Finish Remaining Pads	9 days	Thu 7/3/14	Tue 7/15/14		89	Thu 7/3/14	Tue 7/15/14		
87	✓		Implement SWPPP	2 days	Wed 7/16/14	Thu 7/17/14			Wed 7/16/14	Thu 7/17/14		
88	✓		Site Garbage Removal (CCO)	2 days	Tue 7/15/14	Wed 7/16/14			Tue 7/15/14	Wed 7/16/14		
89			Remove 55-Gallon Barrels (CCO)	1 day	Wed 7/16/14	Wed 7/16/14	86		NA	NA		
90			De-Mob	1 day	Fri 7/18/14	Fri 7/18/14			Fri 7/18/14	NA		
91	✓		Sanco Move-In	5 days	Mon 7/14/14	Fri 7/18/14			Mon 7/14/14	Fri 7/18/14		
92	✓		Mobilization	3 days	Mon 7/14/14	Wed 7/16/14			Mon 7/14/14	Wed 7/16/14		
93	✓		Inventory Existing Materials	2 days	Tue 7/15/14	Wed 7/16/14		94	Tue 7/15/14	Wed 7/16/14		
94	✓		Layout Existing Utilities	2 days	Thu 7/17/14	Fri 7/18/14	93		Thu 7/17/14	Fri 7/18/14	Victor Davi	
95			Storm Drain	34 days	Wed 7/16/14	Mon 9/1/14			Wed 7/16/14	NA		
96	✓		Stake Storm Drain Galleries	1 day	Wed 7/16/14	Wed 7/16/14		98	Wed 7/16/14	Wed 7/16/14	Victor Davi	
97	✓		Import Rock	3 days	Wed 7/16/14	Fri 7/18/14			Wed 7/16/14	Fri 7/18/14		
98			Storm Drain Gallery CB	5 days	Mon 7/21/14	Fri 7/25/14	96	99	Mon 7/21/14	NA	Victor Davi	
99			Storm Drain Pipe - Telegraph Blvd	2 days	Mon 7/28/14	Tue 7/29/14	98	100	NA	NA		
100			Storm Drain Gallery CG	5 days	Wed 7/30/14	Tue 8/5/14	99	101	NA	NA		
101			Storm Drain Gallery CH/CD	5 days	Wed 8/6/14	Tue 8/12/14	100	102	NA	NA		
102			Storm Drain Gallery CN	10 days	Wed 8/13/14	Tue 8/26/14	101	103	NA	NA		
103			Finish Storm Drain Structures	2 days	Wed 8/27/14	Thu 8/28/14	102	104	NA	NA	Victor Davi	
104			Remove Existing Storm Drain	2 days	Fri 8/29/14	Mon 9/1/14	103		NA	NA	Victor Davi	
105			Sewer	20 days	Mon 7/28/14	Fri 8/22/14			NA	NA		
106			Video Existing Sewer	10 days	Mon 7/28/14	Fri 8/8/14			NA	NA		
107			MOWD Precon	1 day	Wed 8/6/14	Wed 8/6/14			NA	NA		
108			Sewer / Storm Demo	5 days	Mon 8/4/14	Fri 8/8/14		109	NA	NA		
109			New Main / New Laterals	10 days	Mon 8/11/14	Fri 8/22/14	108		NA	NA		
110			Water	41 days	Mon 8/25/14	Mon 10/20/14			NA	NA		
111			Stake for water	2 days	Mon 8/25/14	Tue 8/26/14			NA	NA	Victor Davi	
112			9th Street D/W & R/W	5 days	Mon 8/25/14	Fri 8/29/14		113	NA	NA	Victor Davi	
113			Ph 1 Domestic Water	10 days	Mon 9/1/14	Fri 9/12/14	112	114	NA	NA		
114			Ph 2 Domestic Water	10 days	Tue 9/30/14	Mon 10/13/14	113	115	NA	NA		
115			9th Street Test & Chlorinate	5 days	Tue 10/14/14	Mon 10/20/14	114		NA	NA		
116			Dry Utilities	30 days	Mon 10/13/14	Fri 11/21/14			NA	NA		
117			stake for joint trench	3 days	Mon 10/13/14	Wed 10/15/14		118	NA	NA	Victor Davi	
118			joint trench	21 days	Thu 10/16/14	Thu 11/13/14	117	119	NA	NA	Victor Davi	
119			test utilities	6 days	Fri 11/14/14	Fri 11/21/14	118		NA	NA	Victor Davi	
120			Street Work	109 days	Mon 11/24/14	Thu 4/23/15			NA	NA		
121			Mobilization	2 days	Mon 11/24/14	Tue 11/25/14			NA	NA		
122			Staking	2 days	Mon 11/24/14	Tue 11/25/14			NA	NA		
123			Street Subgrade	3 days	Tue 11/25/14	Thu 11/27/14		124	NA	NA	Victor Davi	
124			Finish Pads	1 day	Fri 11/28/14	Fri 11/28/14	123	125	NA	NA	Victor Davi	
125			Place Stringline @ Alleyway C&G	2 days	Mon 12/1/14	Tue 12/2/14	124	126	NA	NA		
126			Finish Alleyway Subgrade	2 days	Wed 12/3/14	Thu 12/4/14	125	127	NA	NA	Victor Davi	
127			Place Alleyway AB	2 days	Fri 12/5/14	Mon 12/8/14	126	128	NA	NA		
128			Finish Alleyway C&G Grade	3 days	Tue 12/9/14	Thu 12/11/14	127	129	NA	NA		
129			Machine Pour Alleyway C&G	3 days	Fri 12/12/14	Tue 12/16/14	128	130	NA	NA	Victor Davi	
130			Place Stringline @ Separated Walk	2 days	Wed 12/17/14	Thu 12/18/14	129	131	NA	NA		
131			Pour Alleyway Vertical Curb	2 days	Fri 12/19/14	Mon 12/22/14	130	132	NA	NA		
132			Finish Grade SW Area	3 days	Tue 12/23/14	Thu 12/25/14	131	133	NA	NA		
133			Finish Roadway SG / C&G	3 days	Fri 12/26/14	Tue 12/30/14	132	134	NA	NA		
134			Place Roadway AB	3 days	Wed 12/31/14	Fri 1/2/15	133	135	NA	NA		
135			Machine Pour Sidewalk	2 days	Mon 1/5/15	Tue 1/6/15	134	136	NA	NA		
136			Place Stringline @ Mainline C&G	3 days	Wed 1/7/15	Fri 1/9/15	135	137	NA	NA		
137			Finish C&G Grade	2 days	Mon 1/12/15	Tue 1/13/15	136	138	NA	NA		
138			Machine Pour Mainline C&G	2 days	Wed 1/14/15	Thu 1/15/15	137	139	NA	NA		
139			C&G Closure Pours	5 days	Fri 1/16/15	Thu 1/22/15	138	140	NA	NA		
140			Finish / Place AB Alleway & D/W Conc Grade	2 days	Fri 1/23/15	Mon 1/26/15	139	141	NA	NA	Victor Davi	
141			Pour Concrete Hammerhead Approaches	2 days	Tue 1/27/15	Wed 1/28/15	140	142	NA	NA		
142			Pour Inlet Tops	4 days	Thu 1/29/15	Tue 2/3/15	141	143	NA	NA		
143			Place Alleyway Driveways	3 days	Wed 2/4/15	Fri 2/6/15	142	144	NA	NA		
144			Pour Handicap Ramps	5 days	Mon 2/9/15	Fri 2/13/15	143	145	NA	NA		
145			Finish Roadway AB	3 days	Mon 2/16/15	Wed 2/18/15	144	146	NA	NA		
146			Finish Alleyway AB	1 day?	Thu 2/19/15	Thu 2/19/15	145	147	NA	NA		
147			AC Paving	2 days	Fri 2/20/15	Mon 2/23/15	146	148	NA	NA	Victor Davi	
148			Hand Pour OffSite Sidewalk	3 days	Tue 2/24/15	Thu 2/26/15	147	149	NA	NA		
149			Finish Landscape Grading	5 days	Fri 2/27/15	Thu 3/5/15	148	150	NA	NA		
150			Place Alleyway WWF / Concrete	12 days	Fri 3/6/15	Mon 3/23/15	149	151	NA	NA		
151			Raise Iron / Punchlist	6 days	Tue 3/24/15	Tue 3/31/15	150	152	NA	NA	Victor Davi	
152			Street lights	5 days	Wed 4/1/15	Tue 4/7/15	151	153	NA	NA	Victor Davi	
153			Energize Electrical System Phase 1 & 2	1 day	Wed 4/8/15	Wed 4/8/15	152	154	NA	NA	Chris Stump	
154			Pressurize Gas Phase 1 & 2	2 days	Thu 4/9/15	Fri 4/10/15	153	155	NA	NA	Victor Davi	
155			Signing and striping	2 days	Mon 4/13/15	Tue 4/14/15	154	156	NA	NA	Victor Davi	
156			Punch List Walk and Corrections	5 days	Wed 4/15/15	Tue 4/21/15	155	157	NA	NA	Victor Davi	
157			Final Acceptance of Improvements	2 days	Wed 4/22/15	Thu 4/23/15	156		NA	NA	Victor Davi	
158			ARCHITECTURAL PRODUCT/PLAN DEVELOPMENT	139 days	Mon 1/6/14	Thu 7/17/14			Mon 1/6/14	NA		
159	✓		Prepare Initial Architecture Plans	1 day	Mon 1/6/14	Mon 1/6/14		160	Mon 1/6/14	Mon 1/6/14	Dave Kay	
160	✓		White Set Plans Available	1 day	Tue 3/18/14	Tue 3/18/14	159	161	Tue 3/18/14	Tue 3/18/14	Dave Kay	
161	✓		Red Set Plans Available	43 days	Wed 3/19/14	Fri 5/16/14	160	162	Wed 3/19/14	Fri 5/16/14	Dave Kay	Have plan check com
162			Building Permits/Plans Available	17 days	Mon 5/19/14	Tue 6/10/14	161		NA	NA	Dave Kay	
163			Sales Office	22 days	Wed 6/18/14	Thu 7/17/14			NA	NA		
164			Sales Office- Prepare Submittal	9 days	Wed 6/18/14	Mon 6/30/14		165	NA	NA	Chris Stump	
165			Sales Office- Submit	1 day	Tue 7/1/14	Tue 7/1/14	164	166	NA	NA	Chris Stump	
166			Sales Office- Staff Review	11 days	Wed 7/2/14	Wed 7/16/14	165	167	NA	NA	Chris Stump	
167			Sales Office- Staff Approval	1 day	Thu 7/17/14	Thu 7/17/14	166	173	NA	NA	Chris Stump	
168			PURCHASING BUY-OUT	67.5 days	Mon 5/19/14	Wed 8/20/14			Mon 5/19/14	NA		
169	✓		Bid Prep	5 days	Mon 5/19/14	Fri 5/23/14	161	170	Mon 5/19/14	Fri 5/23/14	Chris La Rocca	
170			Out To Bid	6 wks	Thu 5/22/14	Fri 7/4/14	169	171	Thu 5/22/14	NA	Chris La Rocca	Bids back in 6/2/14
171			Award Contract	6.5 wks	Mon 7/7/14	Wed 8/20/14	170	173	NA	NA	Chris La Rocca	Delaying awarding co
172			HOME CONSTRUCTION STARTS	7 days	Thu 8/21/14	Fri 8/29/14			NA	NA		
173			Models	1 day	Thu 8/21/14	Thu 8/21/14	171,8S		NA	NA	Rick Glaviano	Will submit for perm
174			Phase 1	1 day	Fri 8/29/14	Fri 8/29/14	54		NA	NA	Rick Glaviano	
175				1 day?	Tue 3/20/12	Tue 3/20/12			NA	NA		

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(B) - The Dunes Retail 1B Project

1B%20-%20Retail%20Master%20Schedule

ID	Task Mode	Task Name	Duration	Start	Finish	Predecess	Actual Start	Actual Finish	Resource Names
1		**1B RETAIL (CINEMARK AND RELATED IMPROVEMENTS)**	**965 days?**	**Tue 3/20/12**	**Mon 11/30/15**		**Tue 3/20/12**	**NA**	
2		**CINEMARK CONTRACT**	**918 days**	**Thu 5/24/12**	**Mon 11/30/15**		**Thu 5/24/12**	**NA**	
15		**IMPROVEMENT PLANS**	**620 days**	**Tue 3/20/12**	**Mon 8/4/14**		**Tue 3/20/12**	**NA**	
53		IMPROVEMENT AGREEMENTS AND PERMITS					NA	NA	
54		**HORIZONTAL BUYOUT**	**43 days**	**Mon 4/28/14**	**Wed 6/25/14**		**Mon 4/28/14**	**NA**	
65		**SWPPP**	**135 days**	**Mon 1/6/14**	**Fri 7/11/14**		**Mon 1/6/14**	**Fri 7/11/14**	
69		**IMPROVEMENT CONSTRUCTION**	**189 days**	**Thu 8/7/14**	**Tue 4/28/15**		**Thu 8/7/14**	**NA**	
70		Pre-Construction Meeting	1 day	Thu 8/7/14	Thu 8/7/14		Thu 8/7/14	Thu 8/7/14	
71		Rough Grade Staking	1 day	Thu 8/21/14	Thu 8/21/14		NA	NA	
72		Site Mobilization	2 days	Fri 8/22/14	Mon 8/25/14	71	NA	NA	Victor Davi
73		Install SWPPP	2 days	Mon 8/25/14	Tue 8/26/14	72	NA	NA	Victor Davi
74		Clear and Grub	3 days	Wed 8/27/14	Fri 8/29/14	73	NA	NA	Victor Davi
75		Rough Grade	8 days	Mon 9/1/14	Wed 9/10/14	74	NA	NA	Victor Davi
76		Pad Finish	2 days	Thu 9/11/14	Fri 9/12/14	75	NA	NA	Victor Davi
77		Pad Certification	1 day	Mon 9/15/14	Mon 9/15/14	76	NA	NA	Victor Davi
78		Theater Construction Start- Cinemark	1 day	Tue 9/16/14	Tue 9/16/14	77	NA	NA	
79		Stake Storm	1 day	Tue 9/16/14	Tue 9/16/14	77	NA	NA	Victor Davi
80		Pot Hole Existing Utilities	1 day	Wed 9/17/14	Wed 9/17/14	79	NA	NA	Victor Davi
81		Install Storm Drain System	7 days	Wed 9/17/14	Thu 9/25/14	79	NA	NA	Victor Davi
82		Stake for Sewer	1 day	Fri 9/26/14	Fri 9/26/14	81	NA	NA	Victor Davi
83		Install Sanitary Sewer	5 days	Mon 9/29/14	Fri 10/3/14	82	NA	NA	Victor Davi
84		MCWD Water Precon	1 day	Fri 9/26/14	Fri 9/26/14		NA	NA	Rick K,Victor D
85		Stake for water	1 day	Mon 9/29/14	Mon 9/29/14	84	NA	NA	Victor Davi
86		Install Water / Fire System	9 days	Tue 9/30/14	Fri 10/10/14	85	NA	NA	Victor Davi
87		Joint Trench Precon	1 day	Mon 10/13/14	Mon 10/13/14	86	NA	NA	Victor Davi
88		Stake for Joint Trench	1 day	Tue 10/14/14	Tue 10/14/14	87	NA	NA	Victor Davi
89		Install Joint Trench	7 days	Wed 10/15/14	Thu 10/23/14	88	NA	NA	Victor Davi
90		Test Utilities	3 days	Fri 10/24/14	Tue 10/28/14	89	NA	NA	Victor Davi
91		Staking for Curbs	1 day	Wed 10/29/14	Wed 10/29/14	90	NA	NA	Victor Davi
92		Site work Move-In & Layout	1 day	Thu 10/30/14	Thu 10/30/14	91	NA	NA	Victor Davi
93		Parking Lot Subgrade	10 days	Fri 10/31/14	Thu 11/13/14	92	NA	NA	Victor Davi
94		Irrigation Sleeves	2 days	Fri 11/14/14	Mon 11/17/14	93	NA	NA	Victor Davi
95		Subgrade for Concrete Flatwork	11 days	Mon 11/17/14	Mon 12/1/14		NA	NA	
96		Import & Place A/B for Concrete	8 days	Tue 11/18/14	Thu 11/27/14	94	NA	NA	Victor Davi
97		Concrete Curbs / Gutters	30 days	Mon 11/24/14	Fri 1/2/15		NA	NA	Victor Davi
98		Finish AB	9 days	Mon 12/29/14	Thu 1/8/15		NA	NA	Victor Davi
99		AC Paving	5 days	Fri 1/9/15	Thu 1/15/15	98	NA	NA	Victor Davi
100		Striping, Signs & Bumpers	12 days	Mon 1/19/15	Tue 2/3/15		NA	NA	
101		Landscaping	29 days	Mon 2/9/15	Thu 3/19/15		NA	NA	

(Attachment B)

ID	Task Mode	Task Name	Duration	Start	Finish	Predecess	Actual Start	Actual Finish	Resource Names
102		Site Lighting	2 wks	Fri 3/20/15	Thu 4/2/15	101	NA	NA	Victor Davi
103		Energize Electrical System	5 days	Fri 4/3/15	Mon 4/13/15	102	NA	NA	Victor Davi
104		Pressurize Gas System	5 days	Tue 4/14/15	Mon 4/20/15	103	NA	NA	Victor Davi
105		Punch List Walk and Corrections	5 days	Tue 4/21/15	Mon 4/27/15	104	NA	NA	Victor Davi
106		Final Acceptance of Improvements	1 day	Tue 4/28/15	Tue 4/28/15	105,103I	NA	NA	Victor Davi

(ATTACHMENT C)

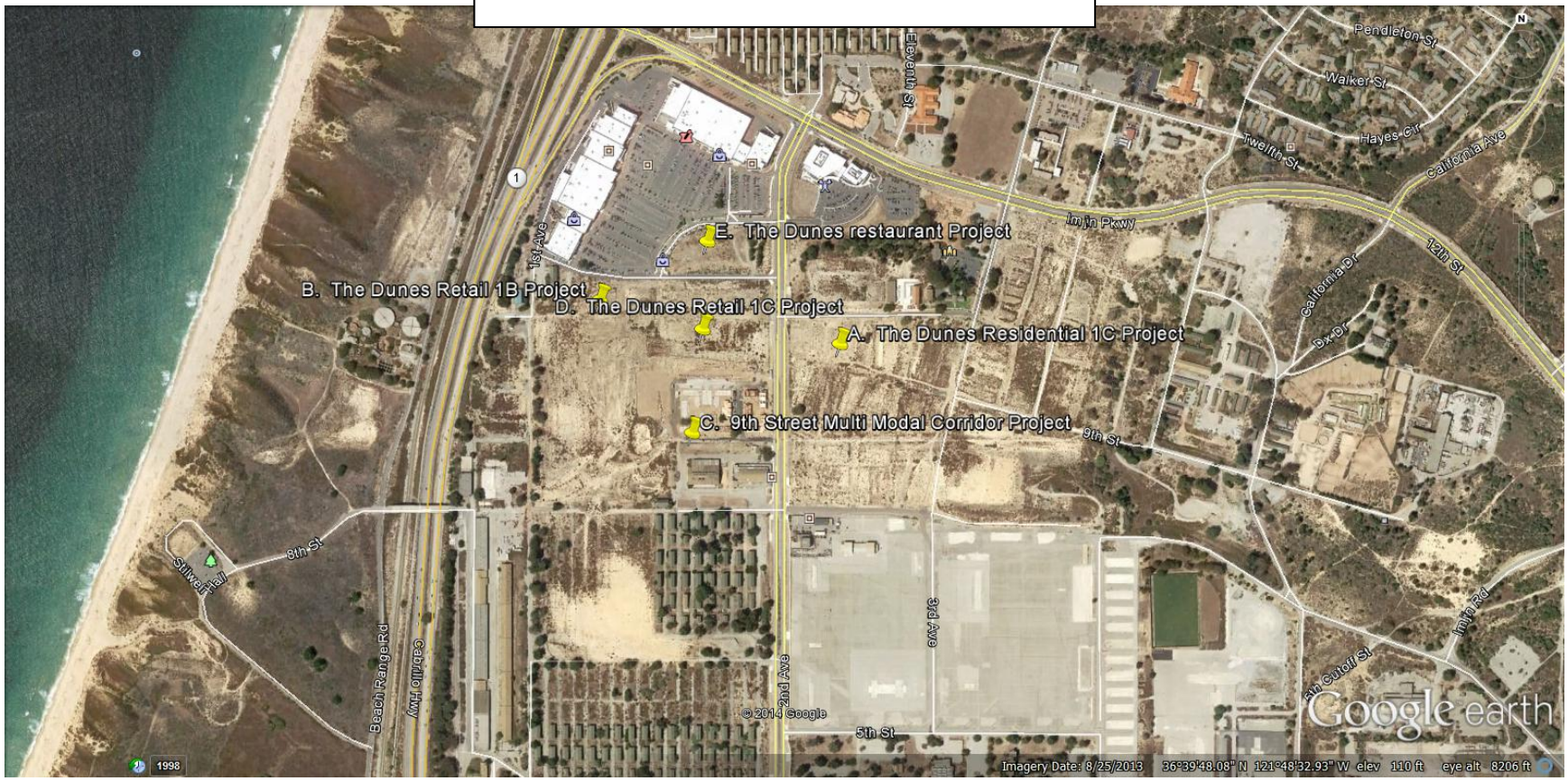
1B%20-%20VA%20Master%20Schedule

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Actual Start
1		**MARINA VA MASTER SCHEDULE**	**357 days**	**Thu 1/16/14**	**Fri 5/29/15**		**Thu 1/16/14**
2		**8th & 9th STREET IMPROVEMENTS**	**330 days**	**Mon 2/24/14**	**Fri 5/29/15**		**Mon 2/24/14**
3		**Improvement Plans - 8th/9th Street**	**44 days**	**Fri 5/9/14**	**Wed 7/9/14**		**Fri 5/9/14**
10		**8th/9th Street Permits**	**35 days**	**Thu 6/5/14**	**Wed 7/23/14**		**Thu 6/5/14**
14		**Joint Trench Plans - 8th/9th Street (MMC)**	**109 days**	**Mon 5/26/14**	**Thu 10/23/14**		**Mon 5/26/14**
25		Landscape Plans	1 day	Mon 2/24/14	Mon 2/24/14		NA
26		**Horizontal Buyout**	**89 days**	**Mon 5/12/14**	**Thu 9/11/14**		**Mon 5/12/14**
42		**Construction of Improvements (8th and 9th St.)**	**173 days**	**Wed 10/1/14**	**Fri 5/29/15**		**NA**
43		Mobilization	5 days	Wed 10/1/14	Tue 10/7/14	34	NA
44		Rough Grade	10 days	Wed 10/8/14	Tue 10/21/14	43	NA
45		Storm	20 days	Wed 10/22/14	Tue 11/18/14	44	NA
46		Water	15 days	Wed 11/19/14	Tue 12/9/14	45	NA
47		Joint Trench	2 wks	Wed 12/10/14	Tue 12/23/14	46	NA
48		Establish Street Subgrade	1 wk	Wed 12/24/14	Tue 12/30/14	47	NA
49		Drop Rock	5 days	Wed 12/31/14	Tue 1/6/15	48	NA
50		Concrete Curb, Gutter and Sidewalk	5 wks	Wed 1/7/15	Tue 2/10/15	49	NA
51		Paving	1 wk	Wed 2/11/15	Tue 2/17/15	50	NA
52		Boardwalk	12 days	Wed 2/18/15	Thu 3/5/15	51	NA
53		Signage and Striping	4 days	Fri 3/6/15	Wed 3/11/15	52	NA
54		Set Street Lights	25 days	Thu 3/12/15	Wed 4/15/15	53	NA
55		Install Landscaping	32 days	Thu 4/16/15	Fri 5/29/15	54	NA

Critical	Finish-only	Manual Summary
Critical Split	Duration-only	Project Summary
Critical Progress	Baseline	External Tasks
Task	Baseline Split	External Milestone
Split	Baseline Milestone	Inactive Task
Task Progress	Milestone	Inactive Milestone
Manual Task	Summary Progress	Inactive Summary
Start-only	Summary	Deadline

9th Street Multi-Modal Corridor

FIGURE 1 – SITE MAP OF PROJECT LOCATIONS



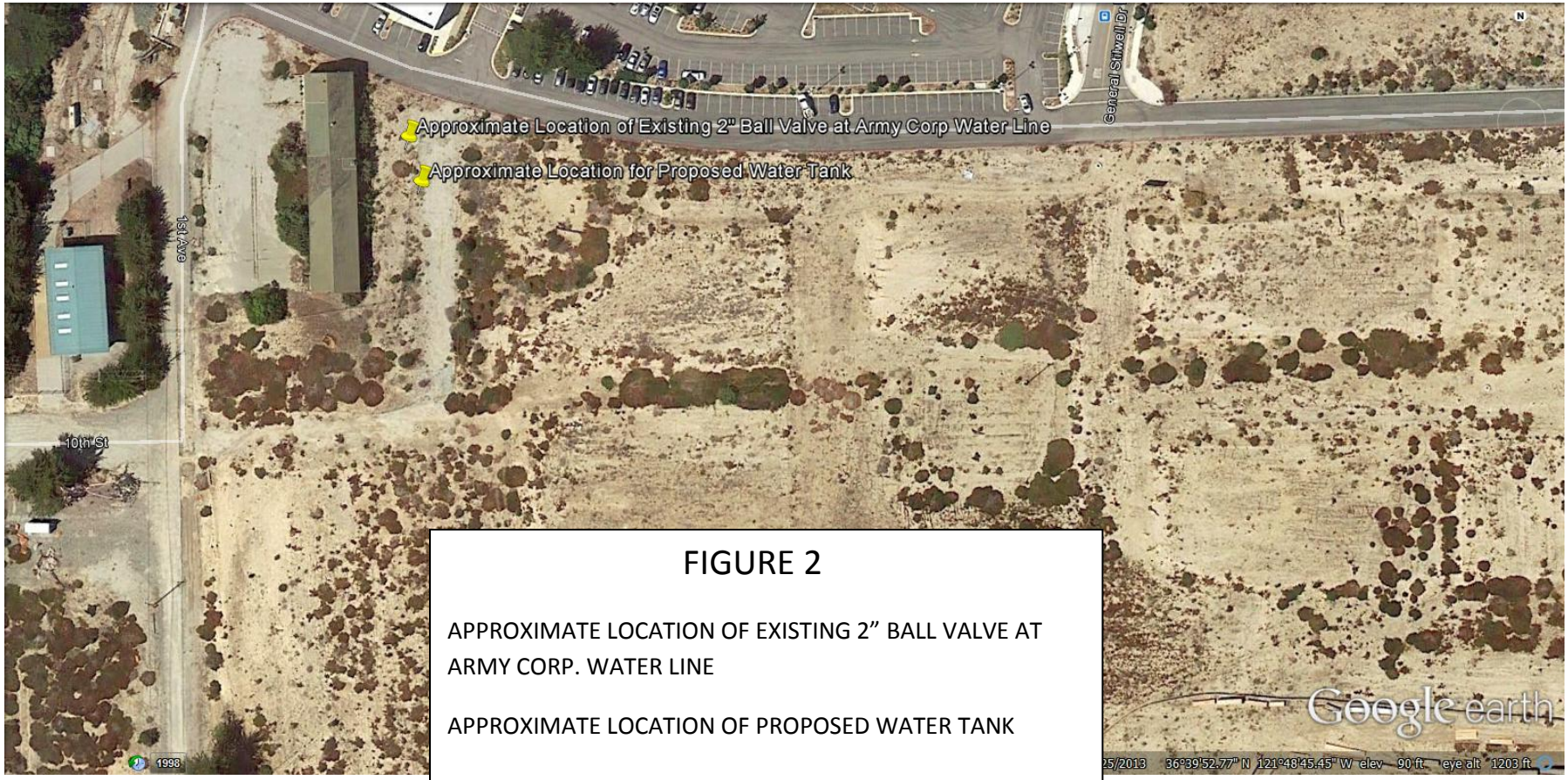


FIGURE 2

APPROXIMATE LOCATION OF EXISTING 2” BALL VALVE AT ARMY CORP. WATER LINE

APPROXIMATE LOCATION OF PROPOSED WATER TANK

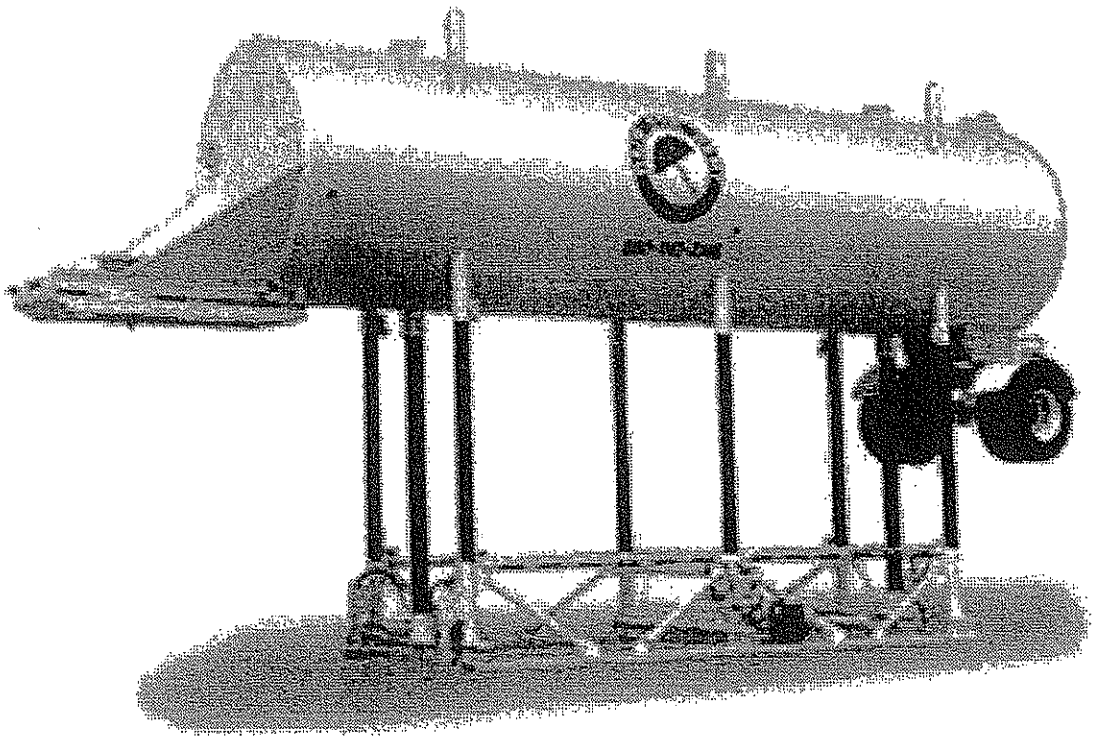
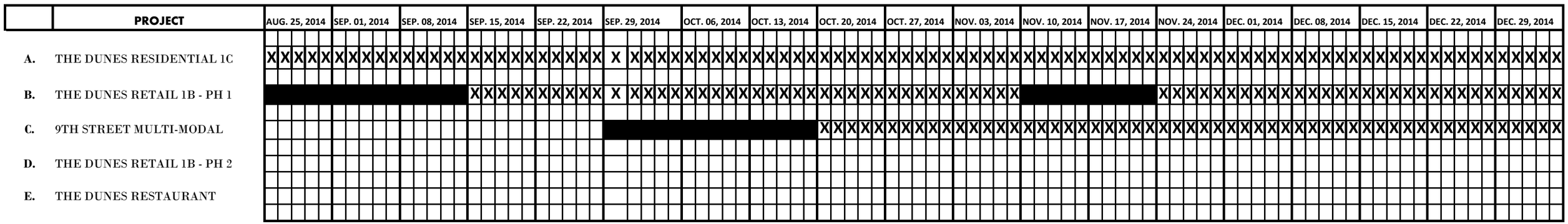


FIGURE 3

FIGURE 4

THE DUNES - MARINA, CA.
CONSTRUCTION WATER USAGE CHART
USACE OU2 WATER SOURCE
DATE: 8/14/14



UP TO 96,000 GALLONS PER DAY (MAXIMUM DAILY DRAW)

X UP TO 32,000 GALLONS PER DAY (MAXIMUM DAILY DRAW)

NOTES:

1.) **MAXIMUM DAILY DRAW WILL NOT EXCEED 160,000 GALLONS DURING ANY THREE PROJECTS BEING PERFORMED CONCURRENTLY.**
2.) **OU2 WATER SOURCE WILL BE USED TO SUPPLEMENT THE POTABLE WATER SOURCE CURRENTLY SLATED FOR USE DURING CONSTRUCTION OF THESE PROJECTS.**
3.) **PROJECTS STARTING AND/OR CARRYING OVER INTO 2015 WILL HAVE SIMILAR DEMAND REQUIREMENTS DUE TO REPETITIVE TASK ORDER FOR SITE DEVELOPMENT.**
4.) **PROJECT START AND FINISH DATES (PER ATTACHMENTS A, B & C)**
   A. THE DUNES RESIDENTIAL 1C: START - 6/23/14 FINISH - 4/23/15
   B. THE DUNES RETAIL 1B - PHASE 1: START - 8/25/14 FINISH - 11/01/15
   C. 9TH STREET MULTI-MODAL CORRIDOR: START - 10/01/14 FINISH - 5/31/15
   D. THE DUNES RETAIL 1B - PHASE 2: START - 7/01/15 FINISH - 8/30/17 (TENTATIVE)
   E. THE DUNES RESTAURANT PROJECT: START - 4/01/15 FINISH - 6/15/16 (TENTATIVE)

Other Groundwater Issues
Fort Ord BCT Meeting
August 22, 2014

Second Quarter (Q2) Groundwater Data

- Validation of the Q2 groundwater data is complete.
- The validated data has been uploaded to FODIS and to GEOTRACKER.

Deliverables

- The First Quarter 2014 groundwater report was issued on July 25 and uploaded to GEOTRACKER on August 13.

OU2 Landfills and TTU
Operation and Maintenance
Status Update
August 22, 2014

Landfill Maintenance

- Monterey County inspection 4/15 – no issues.
- Routine landfill maintenance ongoing – minor erosion repairs, brush and weed removal, mowing.

TTU Operations/Landfill Gas Monitoring

- Operating every other week since 2/6/12 (approx. 90 hrs in each 2 week cycle).
- Methane concentration at TTU approx. 38%
- No operational problems.
- TTU source testing completed 6/5/14 by Best Environmental
- Annual VOCs monitoring completed 6/5/14
- Quarterly perimeter probe monitoring completed 6/12/14 – see attached
    - All compliance probes non detect for methane
    - Probes at edge of landfill around Area E show seasonal fluctuations but overall decline (attachment)
- Replacement ring for top of TTU stack has been procured and installation is scheduled for week of 8/25/14

OU2 Landfill Closure

- Draft Final Construction QC/QA Report, Area E, Phase I, OU2 Landfills issued 7/31/14 Comments requested by 9/5/14.

Thermal Treatment Unit
Operation Summary
2006 - 2014

TREATMENT SYSTEM OPERATION SUMMARY	
Treatment System Start Date:	**6/4/2001**
TTU Start Date:	**4/4/2006**
Last Reading Date/Time:	**8/14/2014 16:45**
Historical through 2013 (TTU only):	
Total TTU Hours:	**67,872**
Total TTU Hours Operated:	**23,903**
% TTU Operation:	**35.2%**
Total Pounds of Methane Removed:	**2,638,229**
Current Year 2014:	
Total Hours:	**5,424**
Total Hours Operated:	**1379**
% TTU Operation:	**25%**
Total Pounds of Methane Removed:	**122,432**
Cumulative (since TTU startup in 2006):	
% TTU Operation:	**34.5%**
Total Pounds of Methane Removed:	**2,760,661**

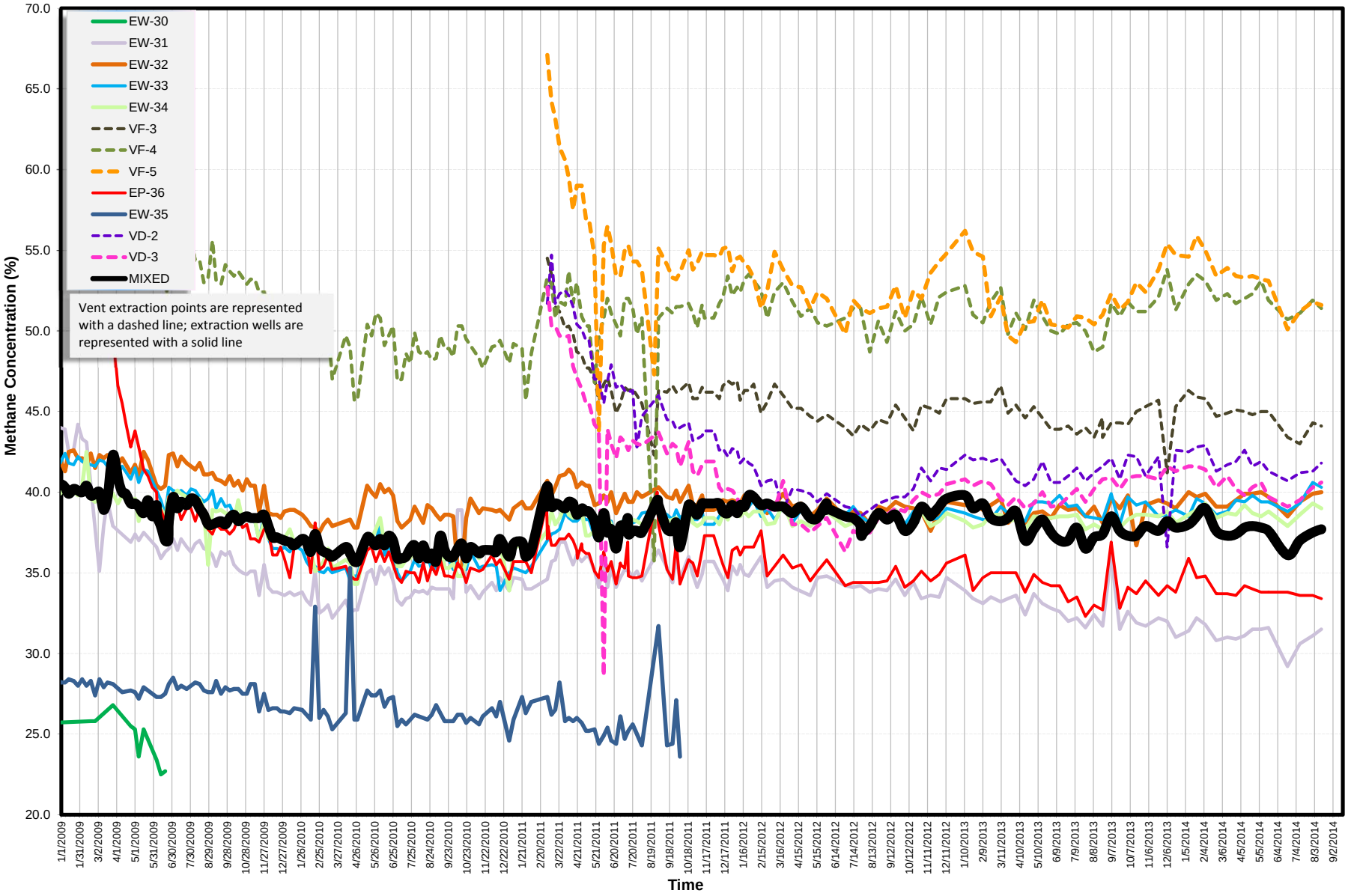
	Total Pounds Removed	Pounds/week
Pounds of Methane Removed (2007)	**532,181**	**10,206**
Pounds of Methane Removed (2008)	**288,433**	**5,532**
Pounds of Methane Removed (2009)	**448,148**	**8,595**
Pounds of Methane Removed (2010)	**212,684**	**4,079**
Pounds of Methane Removed (2011)	**228,085**	**4,374**
Pounds of Methane Removed (2012)	**229,400**	**4,399**
Pounds of Methane Removed (2013)	**187,782**	**3,601**
Pounds of Methane Removed (2014)	**122,432**	**3,792**

	Total Pounds COCs Removed
2007	**6.2**
2008	**3.1**
2009	**3.4**
2010	**1.4**
2011	**1.4**
2012	**1.2**
2013	**1.1**
2014	**0.5**

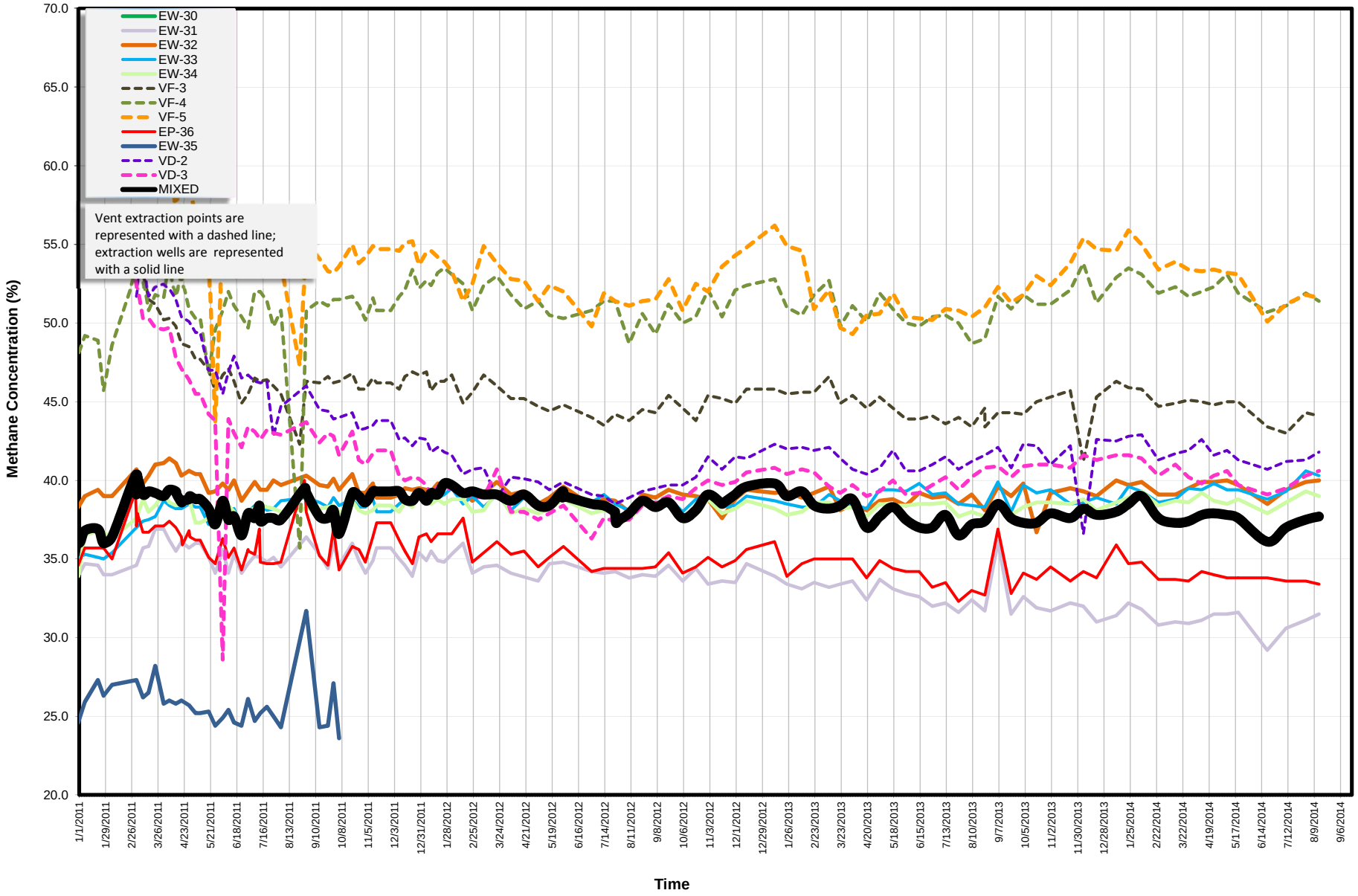
EXTRACTION SYSTEM (2014)

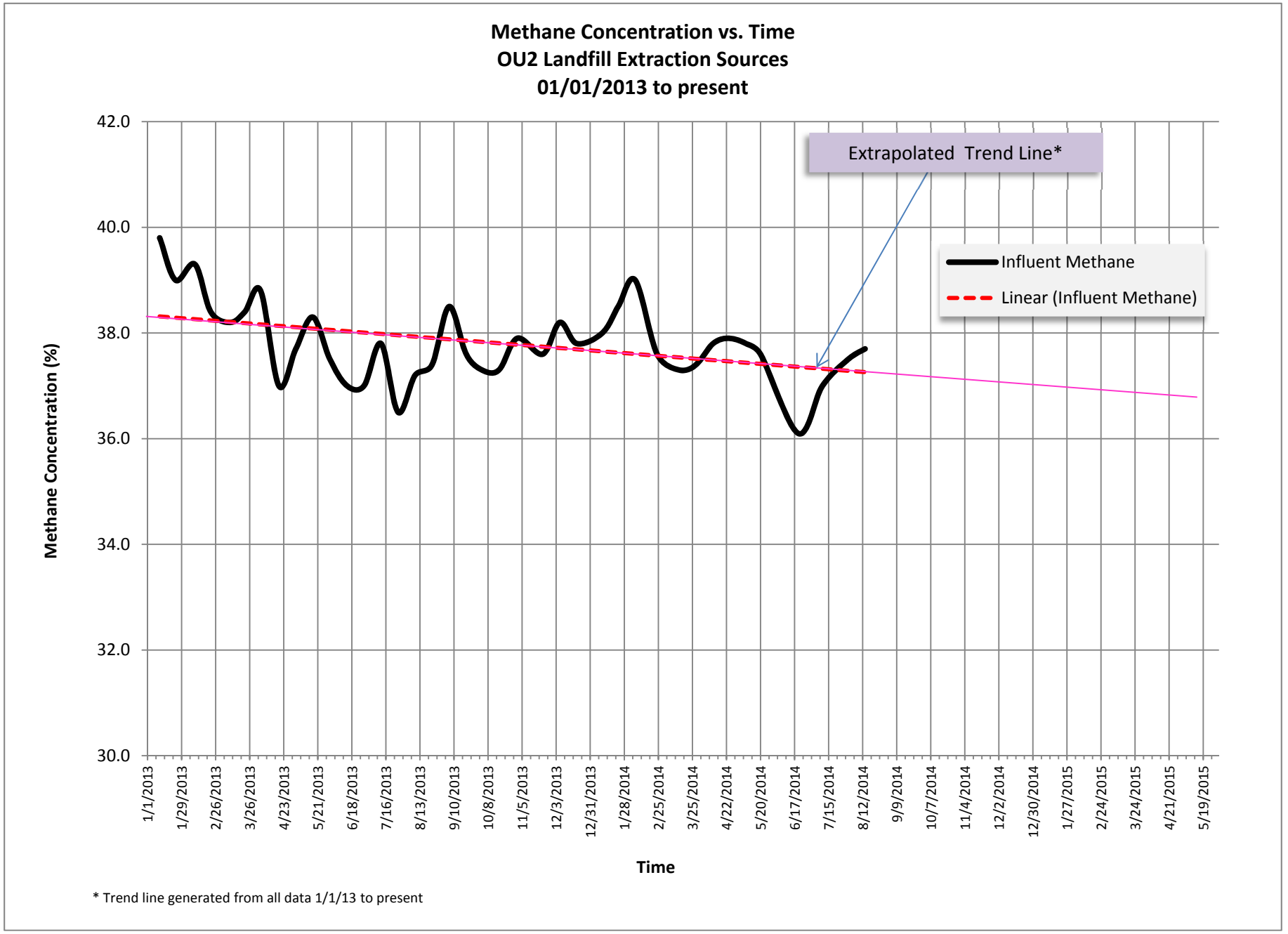
Location	Last Instantaneous Methane Reading (%)	Last Instantaneous Flow Rate Reading (scfm)	Current Methane Removal Rate (lbs/day)	2014 % Operation	2014 Methane Removed (Lbs)	% Contribution of Each Extraction Source
Area E						
EP-36	33.4	25.0	493	25	28785	22%
Area F						
EW-31	31.5	15.0	279	25	16145	12%
EW-32	40.0	15.0	354	27	20812	16%
EW-33	40.3	13.0	309	25	16050	12%
EW-34	39.0	22.0	506	25	29336	22%
VF-3	44.1	4.0	104	25	5744	4%
VF-4	51.4	3.0	91	25	4817	4%
VF-5	51.6	2.0	61	25	5514	4%
Area D						
EW-35	32.6	0.0	0	0	0	0%
VD-2	41.8	1.0	25	25	2014	2%
VD-3	40.6	1.0	24	25	1835	1%
MIXED						
MIXED	37.7	96.0	2135	25	122432	100%

TTU Extraction Sources
OU2 Landfill
From 01/01/2009 to Present



Methane Concentration vs. Time
OU2 Landfill Extraction Sources
1/1/2011 to present




Methane Concentration vs. Time
OU2 Landfill Extraction Sources
01/01/2013 to present
Extrapolated Trend Line*
Influent Methane
Linear (Influent Methane)
Methane Concentration (%)
42.0
40.0
38.0
36.0
34.0
32.0
30.0
1/1/2013
1/29/2013
2/26/2013
3/26/2013
4/23/2013
5/21/2013
6/18/2013
7/16/2013
8/13/2013
9/10/2013
10/8/2013
11/5/2013
12/3/2013
12/31/2013
1/28/2014
2/25/2014
3/25/2014
4/22/2014
5/20/2014
6/17/2014
7/15/2014
8/12/2014
9/9/2014
10/7/2014
11/4/2014
12/2/2014
12/30/2014
1/27/2015
2/24/2015
3/24/2015
4/21/2015
5/19/2015
Time
* Trend line generated from all data 1/1/13 to present

N

FORMER AREA A

AREA B

AREA C

AREA D

AREA E

AREA F

SGP-5B-12' depth Methane - **0%v**

SGP-3C-12' depth Methane - **0%v**

SGP-2D-12' depth Methane - **0%v** SGP-2D-22' depth Methane - **0%v**

SGP-3B-12' depth Methane - **0%v**

SGP-2B-12' depth Methane - **2.1%v**

SGP-1B-12' depth Methane - **0%v**

SGP-4B-12' depth Methane - **0%v**

SGP-2C-12' depth Methane - **0%v**

SGP-1C-12' depth Methane - **0%v**

SGP-4D-12' depth Methane - **0%v** SGP-4D-22' depth Methane - **0%v**

SGP-3D-12' depth Methane - **0%v** SGP-3D-22' depth Methane - **0%v**

SGP-5D-4' depth Methane - **0%v**

SGP-6D-12' depth Methane - **0%v** SGP-6D-22' depth Methane - **0%v**

SGP-1D-12' depth Methane - **0.4%v** SGP-1D-22' depth Methane - **0.1%v**

SGP-18F-12' depth Methane - **0%v** SGP-18F-32' depth Methane - **0%v**

SGP-20F-12' depth Methane - **0%v** SGP-20F-32' depth Methane - **0%v**

SGP-5F-12' depth Methane - **0%v** SGP-5F-32' depth Methane - **0%v**

SGP-17F-12' depth Methane - **0%v** SGP-17F-32' depth Methane - **0%v**

SGP-21F-12' depth Methane - **0%v** SGP-21F-32' depth Methane - **0%v**

SGP-4F-12' depth Methane - **1.1%v** SGP-4F-32' depth Methane - **0%v**

SGP-15F-12' depth Methane - **0%v** SGP-15F-32' depth Methane - **0%v**

SGP-3F-12' depth Methane - **0%v** SGP-3F-32' depth Methane - **0%v**

SGP-16F-4' depth Methane - **0%v**

SGP-6F-12' depth Methane - **0%v** SGP-6F-32' depth Methane - **0%v**

SGP-14F-12' depth Methane - **0%v** SGP-14F-32' depth Methane - **0%v**

SGP-13F-12' depth Methane - **0%v** SGP-13F-32' depth Methane - **0%v**

SGP-2F-12' depth Methane - **0%v** SGP-2F-32' depth Methane - **0.2%v**

SGP-12F-32' depth Methane - **0%v**

SGP-11F-12' depth Methane - **0%v** SGP-11F-32' depth Methane - **0%v**

SGP-7F-12' depth Methane - **0%v** SGP-7F-32' depth Methane - **0%v**

SGP-22F-12' depth Methane - **0%v** SGP-22F-32' depth Methane - **0%v**

SGP-10F-12' depth Methane - **0%v** SGP-10F-22' depth Methane - **0%v**

SGP-8F-12' depth Methane - **0%v** SGP-8F-22' depth Methane - **0%v**

SGP-9F-22' depth Methane - **0%v**

SGP-1F-12' depth Methane - **0%v** SGP-1F-22' depth Methane - **0%v**

SGP-19F-12' depth Methane - **0%v** SGP-19F-22' depth Methane - **0%v**

SGP-4E-12' depth Methane - **27.3%v**

SGP-7E-12' depth Methane - **0%v**

SGP-3E-12' depth Methane - **0%v**

SGP-1E-12' depth Methane - **2.3%v**

SGP-8E-12' depth Methane - **0%v**

SGP-2E-12' depth Methane - **0%v**

SGP-9E-12' depth Methane - **0%v**

SGP-5E-12' depth Methane - **0%v**

SGP-6E-12' depth Methane - **0%v**

VB1 VB2 VB3

VC1 VC2 VC3

VD1 VD2 VD3 VD4

VE1 VE7 VE8

VF1 VF2 VF3 VF4 VF5 VF6

Legend

- LFG Perimeter Probe used for Quarterly Compliance Monitoring
- Additional LFG Monitoring Probe
- Utility Trench Monitoring
- LFG Vent
- LFG Extraction Vent
- Access Road

0 400 800 FEET

U.S. ARMY CORPS OF ENGINEERS
SACRAMENTO DISTRICT

FORMER FORT ORD

FIGURE NUMBER 2-4

FIELD MEASUREMENTS FOR METHANE FROM PERIMETER PROBES FIRST QUARTER 2014

ITSI Gilbane | CBI

DATE	PROJECT NUMBER	FILE NAME
8/5/2014	141234	SEE FOOTER

C:\GIS\Fort_Ord_GIS\LANDFILL\GIS_Documents\LF_methane_2014Q1.mxd

N

FORMER AREA A

AREA B

AREA C

AREA D

AREA E

AREA F

SGP-5B-12' depth Methane - **0%v**

SGP-3C-12' depth Methane - **0%v**

SGP-2D-12' depth Methane - **0%v** SGP-2D-22' depth Methane - **0%v**

SGP-3B-12' depth Methane - **0%v**

SGP-2B-12' depth Methane - **4.3%v**

SGP-1B-12' depth Methane - **0%v**

SGP-4B-12' depth Methane - **0%v**

SGP-2C-12' depth Methane - **0%v**

SGP-1C-12' depth Methane - **0%v**

SGP-4D-12' depth Methane - **0%v** SGP-4D-22' depth Methane - **0%v**

SGP-3D-12' depth Methane - **0%v** SGP-3D-22' depth Methane - **0%v**

SGP-5D-4' depth Methane - **0%v**

SGP-6D-12' depth Methane - **0%v** SGP-6D-22' depth Methane - **0%v**

SGP-1D-12' depth Methane - **0.1%v** SGP-1D-22' depth Methane - **1.7%v**

SGP-18F-12' depth Methane - **0%v** SGP-18F-32' depth Methane - **0%v**

SGP-20F-12' depth Methane - **0%v** SGP-20F-32' depth Methane - **0%v**

SGP-5F-12' depth Methane - **0%v** SGP-5F-32' depth Methane - **0%v**

SGP-17F-12' depth Methane - **0%v** SGP-17F-32' depth Methane - **0%v**

SGP-21F-12' depth Methane - **0%v** SGP-21F-32' depth Methane - **0%v**

SGP-4F-12' depth Methane - **0.7%v** SGP-4F-32' depth Methane - **0%v**

SGP-15F-12' depth Methane - **0%v** SGP-15F-32' depth Methane - **0%v**

SGP-16F-4' depth Methane - **0%v**

SGP-3F-12' depth Methane - **0%v** SGP-3F-32' depth Methane - **0%v**

SGP-6F-12' depth Methane - **0%v** SGP-6F-32' depth Methane - **0%v**

SGP-14F-12' depth Methane - **0%v** SGP-14F-32' depth Methane - **0%v**

SGP-13F-12' depth Methane - **0%v** SGP-13F-32' depth Methane - **0%v**

SGP-2F-12' depth Methane - **0%v** SGP-2F-32' depth Methane - **0%v**

SGP-12F-32' depth Methane - **0%v**

SGP-11F-12' depth Methane - **0%v** SGP-11F-32' depth Methane - **0%v**

SGP-7F-12' depth Methane - **0%v** SGP-7F-32' depth Methane - **0%v**

SGP-22F-12' depth Methane - **0%v** SGP-22F-32' depth Methane - **0%v**

SGP-10F-12' depth Methane - **0%v** SGP-10F-22' depth Methane - **0%v**

SGP-8F-12' depth Methane - **0%v** SGP-8F-22' depth Methane - **0%v**

SGP-9F-22' depth Methane - **0%v**

SGP-1F-12' depth Methane - **0%v** SGP-1F-22' depth Methane - **0%v**

SGP-19F-12' depth Methane - **0%v** SGP-19F-22' depth Methane - **0%v**

SGP-4E-12' depth Methane - **27.6%v**

SGP-7E-12' depth Methane - **0%v**

SGP-3E-12' depth Methane - **11.2%v**

SGP-1E-12' depth Methane - **7%v**

SGP-8E-12' depth Methane - **0%v**

SGP-2E-12' depth Methane - **10.8%v**

SGP-9E-12' depth Methane - **0%v**

SGP-5E-12' depth Methane - **0%v**

SGP-6E-12' depth Methane - **0%v**

VB1 VB2 VB3 VC1 VC2 VC3 VD1 VD2 VD3 VD4 VE1 VE7 VE8 VF1 VF2 VF3 VF4 VF5 VF6

Legend

- LFG Perimeter Probe used for Quarterly Compliance Monitoring
- Additional LFG Monitoring Probe
- Utility Trench Monitoring
- LFG Vent
- LFG Extraction Vent
- Access Road

0 400 800 FEET

U.S. ARMY CORPS OF ENGINEERS
SACRAMENTO DISTRICT

FORMER FORT ORD

FIGURE NUMBER 2-5

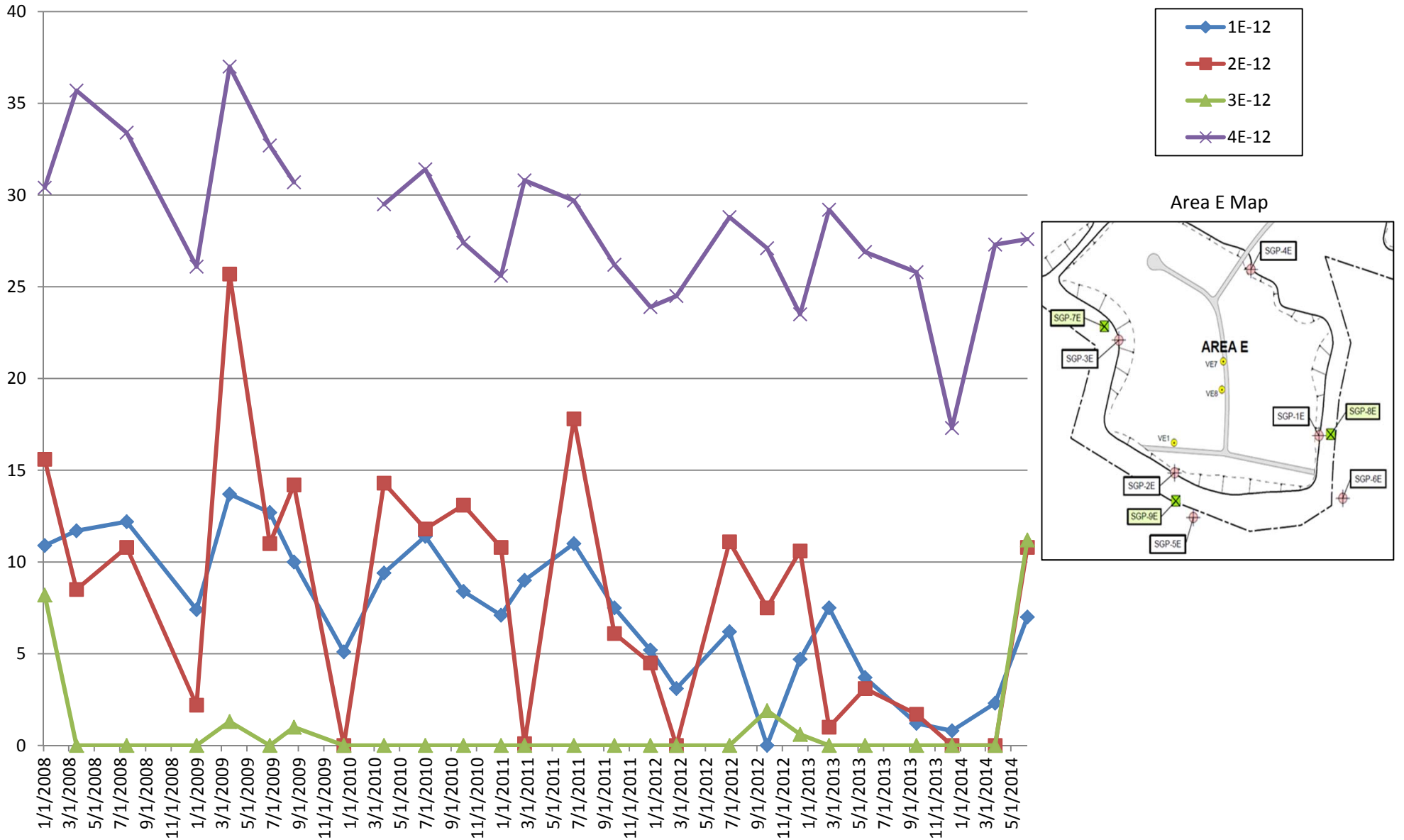
FIELD MEASUREMENTS FOR METHANE FROM PERIMETER PROBES SECOND QUARTER 2014

ITSI Gilbane | CBI

DATE	PROJECT NUMBER	FILE NAME
8/5/2014	141234	SEE FOOTER

C:\GIS\Fort_Ord_GIS\LANDFILL\GIS_Documents\LF_methane_2014Q2.mxd

Area E Monitoring Probes
2008 to Present



BRA, Lead Evaluation, and Site 39 Status
Fort Ord HTW BCT
22 August 2014

Basewide Range Assessment

- Draft TM recommending no further sampling for Unit 6 was released on July 22, 2014. No comments received to date.
- A BRA sampling plan for Units 10, 7, and 33 is being prepared following the completion of all surface MEC removal activities and site reconnaissance.

Lead Evaluation Technical Memorandum

- The Army met with DTSC and EPA toxicologists. ITSI Gilbane prepared background information for HA 18 and HA 23 and USACE prepared hazard indexes in response to comments received. Response to comments sent to EPA and DTSC on 21 July 2014.
- ITSI Gilbane prepared FOCAG RTCs for review.

Site 39 Fieldwork

- No fieldwork for Site 39 this period.

Site 39 Remedial Action Completion Report

- Final submitted on July 30, 2014.

	A	B	C	D	E	F	G	H	I	J
1	**Issue Year**	**Site**	**Document Title**	**Version**	**Issue Date**	**Comment Due Date**	**DocGroup**	**DocType**	**Author Org**	**Notes**
2	2014	Basewide	Accident Prevention Plan, Treatment Systems Operations and Maintenance, and Groundwater Monitoring at Operable Unit 2, Sites 2 and 12, and Operable Unit Carbon Tetrachloride Plume	DRAFT	3-Sep-14	3-Oct-14	Secondary	Internal	Ahtna	Submit draft version to Army for review
3	2014	Basewide	Accident Prevention Plan, Treatment Systems Operations and Maintenance, and Groundwater Monitoring at Operable Unit 2, Sites 2 and 12, and Operable Unit Carbon Tetrachloride Plume	FINAL	17-Oct-14	None	Secondary	Internal	Ahtna	When draft version is approved by the Army, submit only as Final
4	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume A-Aquifer Remedy Evaluation Work Plan	PREDRAFT	3-Sep-14	17-Sep-14	Secondary	Internal	Ahtna	
5	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume A-Aquifer Remedy Evaluation Work Plan	DRAFT	1-Oct-14	31-Oct-14	Secondary	External	Ahtna	
6	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume A-Aquifer Remedy Evaluation Work Plan	DRAFT FINAL	28-Nov-14	29-Dec-14	Secondary	External	Ahtna	
7	2015	OUCTP	Operable Unit Carbon Tetrachloride Plume A-Aquifer Remedy Evaluation Work Plan	FINAL	12-Jan-15	None	Secondary	External	Ahtna	
8	2014	RI Sites	Report, Remedial Investigation/Feasibility Study Addendum at Sites 2 and 12	PREDRAFT	*26-Jun-14*	18-Jul-14	Secondary	Internal	Ahtna	Received
9	2014	RI Sites	Report, Remedial Investigation/Feasibility Study Addendum at Sites 2 and 12	DRAFT	*11-Aug-14*	8-Oct-14	Primary	External	Ahtna	Received
10	2014	RI Sites	Report, Remedial Investigation/Feasibility Study Addendum at Sites 2 and 12	DRAFT FINAL	23-Oct-14	24-Nov-14	Primary	External	Ahtna	
11	2014	RI Sites	Report, Remedial Investigation/Feasibility Study Addendum at Sites 2 and 12	FINAL	5-Dec-14	None	Primary	External	Ahtna	
12	2014	Basewide	Superfund Proposed Plan: Remedial Investigation Sites 2 and 12	PREDRAFT	3-Sep-14	17-Sep-14	Primary	Internal	Ahtna	
13	2014	Basewide	Superfund Proposed Plan: Remedial Investigation Sites 2 and 12	DRAFT	1-Oct-14	1-Dec-14	Primary	External	Ahtna	
14	2015	Basewide	Superfund Proposed Plan: Remedial Investigation Sites 2 and 12	DRAFT FINAL	31-Dec-14	30-Jan-15	Primary	External	Ahtna	
15	2015	Basewide	Superfund Proposed Plan: Remedial Investigation Sites 2 and 12	FINAL	13-Feb-15	None	Primary	External	Ahtna	
16	2014	Basewide	Annual Groundwater Treatment Systems Operation Data Summary Report, January through December 2013, OU2 and OUCTP Upper 180-Foot Aquifer Groundwater Remedies (Volume I), and Sites 2/12 Groundwater Remedy (Volume II)	FINAL	*5-Jun-14*	None	Secondary	External	Ahtna	Received; Draft has no comment; Issuing Final directly
17	2014	Basewide	Annual Report of Quarterly Monitoring, October 2012 through September 2013, Groundwater Monitoring Program, Sites 2 and 12, OU2, OUCTP, and OU1 Off-Site	FINAL	*13-Jun-14*	None	Secondary	External	Ahtna / AMEC	Received
18	2014	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Annual Report, October 2013 through September 2014	PREDRAFT	3-Dec-14	17-Dec-14	Secondary	Internal	Ahtna / AMEC	
19	2014	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Annual Report, October 2013 through September 2014	DRAFT	31-Dec-14	30-Jan-15	Secondary	External	Ahtna / AMEC	
20	2015	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Annual Report, October 2013 through September 2014	DRAFT FINAL	1-Mar-15	31-Mar-15	Secondary	External	Ahtna / AMEC	
21	2015	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Annual Report, October 2013 through September 2014	FINAL	14-Apr-15	None	Secondary	External	Ahtna / AMEC	
22	2014	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Quarterly Report, Second Quarter 2014	FINAL	31-Oct-14	None	Secondary	External	Ahtna / AMEC	
23	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Annual Report, October 2013 through September 2014	PREDRAFT	3-Dec-14	17-Dec-14	Secondary	Internal	Ahtna / AMEC	
24	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Annual Report, October 2013 through September 2014	DRAFT	31-Dec-14	30-Jan-15	Secondary	External	Ahtna / AMEC	
25	2015	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Annual Report, October 2013 through September 2014	DRAFT FINAL	1-Mar-15	31-Mar-15	Secondary	External	Ahtna / AMEC	
26	2015	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Annual Report, October 2013 through September 2014	FINAL	14-Apr-15	None	Secondary	External	Ahtna / AMEC	
27	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Quarterly Report, Second Quarter 2014	FINAL	31-Oct-14	None	Secondary	External	Ahtna / AMEC	
28	2014	Basewide	Report of Quarterly Monitoring, First Quarter 2014, Groundwater Monitoring Program, Sites 2 and 12, OU2, and OUCTP	FINAL	*25-Jul-14*	None	Secondary	External	Ahtna / AMEC	Received
29	2014	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Annual Report, October 2013 through September 2014	PREDRAFT	3-Dec-14	17-Dec-14	Secondary	Internal	Ahtna / AMEC	
30	2014	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Annual Report, October 2013 through September 2014	DRAFT	31-Dec-14	30-Jan-15	Secondary	External	Ahtna / AMEC	
31	2015	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Annual Report, October 2013 through September 2014	DRAFT FINAL	1-Mar-15	31-Mar-15	Secondary	External	Ahtna / AMEC	

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1	**Issue Year**	**Site**	**Document Title**	**Version**	**Issue Date**	**Comment Due Date**	**DocGroup**	**DocType**	**Author Org**	**Notes**
32	2015	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Annual Report, October 2013 through September 2014	FINAL	14-Apr-15	None	Secondary	External	Ahtna / AMEC	
33	2014	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Quarterly Report, Second Quarter 2014	FINAL	31-Oct-14	None	Secondary	External	Ahtna / AMEC	
34	2014	RI Sites	Site Specific Restoration Plan, Historical Areas 26, 28, 34, 37, 38, 44, and 48, Former Fort Ord, California	FINAL	*18-Jul-14*	None	Secondary	External	Burleson Consulting, Inc.	Received
35	2014	Basewide	2013 Habitat Restoration and Monitoring Report, Non-Remediated Areas, Fort Ord Dunes State Park (Formerly Site 3), Former Fort Ord, California	FINAL	*18-Jun-14*	None	Secondary	External	California State Parks	Received
36	2014	Basewide	Analysis of the 2013 Community Survey and 2013-2014 Community Outreach Program, Fort Ord, California	DRAFT	30-Dec-14	31-Jan-14	Secondary	External	Fort Ord BRAC	
37	2014	OU1	Well Destruction and Former OU-1 Treatment Plant Decommissioning Completion Report Former Fort Ord, California	DRAFT	*11-Aug-14*	16-Sep-14	Secondary	External	HydroGeoLogic, Inc.	Received
38	2014	OU1	Well Destruction and Former OU-1 Treatment Plant Decommissioning Completion Report Former Fort Ord, California	DRAFT FINAL	25-Sep-14	22-Oct-14	Secondary	External	HydroGeoLogic, Inc.	
39	2014	OU2	Annual Report, 2013, Operations and Maintenance, Operable Unit 2 Landfills, Former Fort Ord, California	FINAL	*9-Jul-14*	None	Secondary	External	ITSI Gilbane	Received
40	2014	OU2	Construction QC and QA Report, OU2 Landfills, Area E Phase 1	DRAFT FINAL	*14-Jul-14*	14-Aug-14	Primary	External	ITSI Gilbane	Received
41	2014	OU2	Construction QC and QA Report, OU2 Landfills, Area E Phase 1	FINAL	14-Sep-14	None	Primary	External	ITSI Gilbane	
42	2014	OU2	Quality Assurance Project Plan, Superfund Response Actions, Former Fort Ord, California, Volume 2, OU2 Landfill, Appendix A	FINAL	17-Nov-14	None	Primary	External	ITSI Gilbane	
43	2014	OU2	Quality Assurance Project Plan, Superfund Response Actions, Former Fort Ord, California, Volume 2, OU2 Landfill, Appendix A	DRAFT	*16-Jun-14*	18-Aug-14	Primary	External	ITSI Gilbane	Received
44	2014	OU2	Quality Assurance Project Plan, Superfund Response Actions, Former Fort Ord, California, Volume 2, OU2 Landfill, Appendix A	DRAFT FINAL	16-Sep-14	16-Oct-14	Primary	External	ITSI Gilbane	
45	2014	RI Sites	Remedial Action Completion Report, Site 39 Inland Ranges Habitat Reserve, Former Fort Ord, California	FINAL	*31-Jul-14*	None	Primary	External	ITSI Gilbane	Received
46	2014	Basewide	Technical Memorandum Evaluation of Lead Concentrations at Selected Sites, Former Fort Ord, California	DRAFT FINAL	TBD	TBD	Secondary	External	ITSI Gilbane	
47	2014	Basewide	Technical Memorandum Evaluation of Lead Concentrations at Selected Sites, Former Fort Ord, California	FINAL	TBD	TBD	Secondary	External	ITSI Gilbane	
48	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigation, Unit 6, Former Fort Ord, California	DRAFT	*22-Jul-14*	25-Aug-14	Secondary	External	ITSI Gilbane	Received
49	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigation, Unit 6, Former Fort Ord, California	DRAFT FINAL	22-Sep-14	22-Oct-14	Secondary	External	ITSI Gilbane	
50	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigation, Unit 6, Former Fort Ord, California	FINAL	7-Nov-14	None	Secondary	External	ITSI Gilbane	
51	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Units 7, 10, 33, Former Fort Ord, California	DRAFT	30-Sep-14	30-Oct-14	Secondary	External	ITSI Gilbane	
52	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Units 7, 10, 33, Former Fort Ord, California	DRAFT FINAL	31-Dec-14	31-Jan-14	Secondary	External	ITSI Gilbane	
53	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Units 7, 10, 33, Former Fort Ord, California	FINAL	15-Feb-15	None	Secondary	External	ITSI Gilbane	
54	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Watkins Gate Burn Area, Former Fort Ord, California	DRAFT	30-Sep-14	30-Oct-14	Secondary	External	ITSI Gilbane	
55	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Watkins Gate Burn Area, Former Fort Ord, California	DRAFT FINAL	31-Dec-14	31-Jan-14	Secondary	External	ITSI Gilbane	

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1	**Issue Year**	**Site**	**Document Title**	**Version**	**Issue Date**	**Comment Due Date**	**DocGroup**	**DocType**	**Author Org**	**Notes**
2	2014	Basewide	Annual Groundwater Treatment Systems Operation Data Summary Report, January through December 2013, OU2 and OUCTP Upper 180-Foot Aquifer Groundwater Remedies (Volume I), and Sites 2/12 Groundwater Remedy (Volume II)	FINAL	*5-Jun-14*	None	Secondary	External	Ahtna	Received; Draft has no comment; Issuing Final directly
3	2014	Basewide	Annual Report of Quarterly Monitoring, October 2012 through September 2013, Groundwater Monitoring Program, Sites 2 and 12, OU2, OUCTP, and OU1 Off-Site	FINAL	*13-Jun-14*	None	Secondary	External	Ahtna / AMEC	Received
4	2014	OU2	Quality Assurance Project Plan, Superfund Response Actions, Former Fort Ord, California, Volume 2, OU2 Landfill, Appendix A	DRAFT	*16-Jun-14*	18-Aug-14	Primary	External	ITSI Gilbane	Received
5	2014	Basewide	2013 Habitat Restoration and Monitoring Report, Non-Remediated Areas, Fort Ord Dunes State Park (Formerly Site 3), Former Fort Ord, California	FINAL	*18-Jun-14*	None	Secondary	External	California State Parks	Received
6	2014	RI Sites	Report, Remedial Investigation/Feasibility Study Addendum at Sites 2 and 12	PREDRAFT	*26-Jun-14*	18-Jul-14	Secondary	Internal	Ahtna	Received
7	2014	OU2	Annual Report, 2013, Operations and Maintenance, Operable Unit 2 Landfills, Former Fort Ord, California	FINAL	*9-Jul-14*	None	Secondary	External	ITSI Gilbane	Received
8	2014	OU2	Construction QC and QA Report, OU2 Landfills, Area E Phase 1	DRAFT FINAL	*14-Jul-14*	14-Aug-14	Primary	External	ITSI Gilbane	Received
9	2014	RI Sites	Site Specific Restoration Plan, Historical Areas 26, 28, 34, 37, 38, 44, and 48, Former Fort Ord, California	FINAL	*18-Jul-14*	None	Secondary	External	Burleson Consulting, Inc.	Received
10	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigation, Unit 6, Former Fort Ord, California	DRAFT	*22-Jul-14*	25-Aug-14	Secondary	External	ITSI Gilbane	Received
11	2014	Basewide	Report of Quarterly Monitoring, First Quarter 2014, Groundwater Monitoring Program, Sites 2 and 12, OU2, and OUCTP	FINAL	*25-Jul-14*	None	Secondary	External	Ahtna / AMEC	Received
12	2014	RI Sites	Remedial Action Completion Report, Site 39 Inland Ranges Habitat Reserve, Former Fort Ord, California	FINAL	*31-Jul-14*	None	Primary	External	ITSI Gilbane	Received
13	2014	RI Sites	Report, Remedial Investigation/Feasibility Study Addendum at Sites 2 and 12	DRAFT	*11-Aug-14*	8-Oct-14	Primary	External	Ahtna	Received
14	2014	OU1	Well Destruction and Former OU-1 Treatment Plant Decommissioning Completion Report Former Fort Ord, California	DRAFT	*11-Aug-14*	16-Sep-14	Secondary	External	HydroGeoLogic, Inc.	Received
15	2014	Basewide	Accident Prevention Plan, Treatment Systems Operations and Maintenance, and Groundwater Monitoring at Operable Unit 2, Sites 2 and 12, and Operable Unit Carbon Tetrachloride Plume	DRAFT	3-Sep-14	3-Oct-14	Secondary	Internal	Ahtna	Submit draft version to Army for review
16	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume A-Aquifer Remedy Evaluation Work Plan	PREDRAFT	3-Sep-14	17-Sep-14	Secondary	Internal	Ahtna	
17	2014	Basewide	Superfund Proposed Plan: Remedial Investigation Sites 2 and 12	PREDRAFT	3-Sep-14	17-Sep-14	Primary	Internal	Ahtna	
18	2014	OU2	Construction QC and QA Report, OU2 Landfills, Area E Phase 1	FINAL	14-Sep-14	None	Primary	External	ITSI Gilbane	
19	2014	OU2	Quality Assurance Project Plan, Superfund Response Actions, Former Fort Ord, California, Volume 2, OU2 Landfill, Appendix A	DRAFT FINAL	16-Sep-14	16-Oct-14	Primary	External	ITSI Gilbane	
20	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigation, Unit 6, Former Fort Ord, California	DRAFT FINAL	22-Sep-14	22-Oct-14	Secondary	External	ITSI Gilbane	
21	2014	OU1	Well Destruction and Former OU-1 Treatment Plant Decommissioning Completion Report Former Fort Ord, California	DRAFT FINAL	25-Sep-14	22-Oct-14	Secondary	External	HydroGeoLogic, Inc.	
22	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Units 7, 10, 33, Former Fort Ord, California	DRAFT	30-Sep-14	30-Oct-14	Secondary	External	ITSI Gilbane	
23	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Watkins Gate Burn Area, Former Fort Ord, California	DRAFT	30-Sep-14	30-Oct-14	Secondary	External	ITSI Gilbane	
24	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume A-Aquifer Remedy Evaluation Work Plan	DRAFT	1-Oct-14	31-Oct-14	Secondary	External	Ahtna	
25	2014	Basewide	Superfund Proposed Plan: Remedial Investigation Sites 2 and 12	DRAFT	1-Oct-14	1-Dec-14	Primary	External	Ahtna	
26	2014	Basewide	Accident Prevention Plan, Treatment Systems Operations and Maintenance, and Groundwater Monitoring at Operable Unit 2, Sites 2 and 12, and Operable Unit Carbon	FINAL	17-Oct-14	None	Secondary	Internal	Ahtna	When draft version is approved by the Army, submit only as Final
27	2014	RI Sites	Report, Remedial Investigation/Feasibility Study Addendum at Sites 2 and 12	DRAFT FINAL	23-Oct-14	24-Nov-14	Primary	External	Ahtna	
28	2014	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Quarterly Report, Second Quarter 2014	FINAL	31-Oct-14	None	Secondary	External	Ahtna / AMEC	
29	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Quarterly Report, Second Quarter 2014	FINAL	31-Oct-14	None	Secondary	External	Ahtna / AMEC	
30	2014	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Quarterly Report, Second Quarter 2014	FINAL	31-Oct-14	None	Secondary	External	Ahtna / AMEC	

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1	**Issue Year**	**Site**	**Document Title**	**Version**	**Issue Date**	**Comment Due Date**	**DocGroup**	**DocType**	**Author Org**	**Notes**
31	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigation, Unit 6, Former Fort Ord, California	FINAL	7-Nov-14	None	Secondary	External	ITSI Gilbane	
32	2014	OU2	Quality Assurance Project Plan, Superfund Response Actions, Former Fort Ord, California, Volume 2, OU2 Landfill, Appendix A	FINAL	17-Nov-14	None	Primary	External	ITSI Gilbane	
33	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume A-Aquifer Remedy Evaluation Work Plan	DRAFT FINAL	28-Nov-14	29-Dec-14	Secondary	External	Ahtna	
34	2014	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Annual Report, October 2013 through September 2014	PREDRAFT	3-Dec-14	17-Dec-14	Secondary	Internal	Ahtna / AMEC	
35	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Annual Report, October 2013 through September 2014	PREDRAFT	3-Dec-14	17-Dec-14	Secondary	Internal	Ahtna / AMEC	
36	2014	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Annual Report, October 2013 through September 2014	PREDRAFT	3-Dec-14	17-Dec-14	Secondary	Internal	Ahtna / AMEC	
37	2014	RI Sites	Report, Remedial Investigation/Feasibility Study Addendum at Sites 2 and 12	FINAL	5-Dec-14	None	Primary	External	Ahtna	
38	2014	Basewide	Analysis of the 2013 Community Survey and 2013-2014 Community Outreach Program, Fort Ord, California	DRAFT	30-Dec-14	31-Jan-14	Secondary	External	Fort Ord BRAC	
39	2015	Basewide	Superfund Proposed Plan: Remedial Investigation Sites 2 and 12	DRAFT FINAL	31-Dec-14	30-Jan-15	Primary	External	Ahtna	
40	2014	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Annual Report, October 2013 through September 2014	DRAFT	31-Dec-14	30-Jan-15	Secondary	External	Ahtna / AMEC	
41	2014	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Annual Report, October 2013 through September 2014	DRAFT	31-Dec-14	30-Jan-15	Secondary	External	Ahtna / AMEC	
42	2014	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Annual Report, October 2013 through September 2014	DRAFT	31-Dec-14	30-Jan-15	Secondary	External	Ahtna / AMEC	
43	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Units 7, 10, 33, Former Fort Ord, California	DRAFT FINAL	31-Dec-14	31-Jan-14	Secondary	External	ITSI Gilbane	
44	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Watkins Gate Burn Area, Former Fort Ord, California	DRAFT FINAL	31-Dec-14	31-Jan-14	Secondary	External	ITSI Gilbane	
45	2015	OUCTP	Operable Unit Carbon Tetrachloride Plume A-Aquifer Remedy Evaluation Work Plan	FINAL	12-Jan-15	None	Secondary	External	Ahtna	
46	2015	Basewide	Superfund Proposed Plan: Remedial Investigation Sites 2 and 12	FINAL	13-Feb-15	None	Primary	External	Ahtna	
47	2014	RI Sites	Technical Memorandum, Basewide Range Assessment Investigations, Units 7, 10, 33, Former Fort Ord, California	FINAL	15-Feb-15	None	Secondary	External	ITSI Gilbane	
48	2015	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Annual Report, October 2013 through September 2014	DRAFT FINAL	1-Mar-15	31-Mar-15	Secondary	External	Ahtna / AMEC	
49	2015	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Annual Report, October 2013 through September 2014	DRAFT FINAL	1-Mar-15	31-Mar-15	Secondary	External	Ahtna / AMEC	
50	2015	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Annual Report, October 2013 through September 2014	DRAFT FINAL	1-Mar-15	31-Mar-15	Secondary	External	Ahtna / AMEC	
51	2015	OU2	Operable Unit 2 Groundwater Monitoring and Treatment System Annual Report, October 2013 through September 2014	FINAL	14-Apr-15	None	Secondary	External	Ahtna / AMEC	
52	2015	OUCTP	Operable Unit Carbon Tetrachloride Plume Groundwater Monitoring Annual Report, October 2013 through September 2014	FINAL	14-Apr-15	None	Secondary	External	Ahtna / AMEC	
53	2015	Basewide	Sites 2 and 12 Groundwater and Soil Vapor Monitoring and Treatment System Annual Report, October 2013 through September 2014	FINAL	14-Apr-15	None	Secondary	External	Ahtna / AMEC	
54	2014	Basewide	Technical Memorandum Evaluation of Lead Concentrations at Selected Sites, Former Fort Ord, California	DRAFT FINAL	TBD	TBD	Secondary	External	ITSI Gilbane	
55	2014	Basewide	Technical Memorandum Evaluation of Lead Concentrations at Selected Sites, Former Fort Ord, California	FINAL	TBD	TBD	Secondary	External	ITSI Gilbane	

			AUGUST			
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
					1	2
3	4	5	6	7	8	9
10	11	12 ESCA Reg Mtg (1pm)	13 MR IPM (10am) HTW IPM (1:30pm)	14	15	16
17	18	19	20	21	22 MR BCT (10:00am) HTW BCT (1:30pm)	23 CIW/ Open House/ Bus Tour
24	25	26 TRC Meeting	27	28	29	30
31						

			SEPTEMBER			
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
	1	2	3	4	5	6
7	8	9 ESCA Reg Mtg (1pm)	10	11	12	13
14	15	16	17 MR IPM (10am) HTW IPM (130pm)	18	19	20
21	22	23 HTW BCT (1:30p)	24 MR BCT (10am)	25	26	27
28	29	30				

			OCTOBER			
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
			1	2	3	4
5	6	7	8	9	10	11
12	13	14 ESCA Reg Mtg (1pm)	15 MR IPM (10am) HTW IPM (130pm)	16	17	18
19	20	21	22 MR BCT (10am) HTW BCT (130pm)	23	24	25
26	27	28	29	30	31	

			NOVEMBER			
Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
						1
2	3	4	5	6	7	8
9	10	11 ESCA Reg Mtg (1pm)	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						