

Former Fort Ord Operable Unit 2 Data and Status

HTW BCT, April 11, 2018

Table 1: OU2 GWTP Statistics as of March 31, 2018

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
March 2018	18,632,656	417	86.7	1.2
Total since October 1995	7.296 Billion			832

Table 2: March 2018 – OU2 Analytical Results at TS-OU2-INJ

COC	Discharge Limit (µg/L)	Analytical Results (µg/L)
		3/13/2018
1,1-dichloroethane (1,1-DCA)	5.0*	0.55
1,2-dichloroethane (1,2-DCA)	0.5	0.23 J
1,2-dichloropropane (1,2-DCP)	0.5	ND (0.25)
Benzene	0.5	ND (0.25)
Carbon tetrachloride (CT)	0.5	ND (0.25)
Chloroform	2.0*	0.33 J
Cis-1,2-dichloroethene (cis-1,2-DCE)	6.0*	0.53
Methylene Chloride	0.5	ND (0.50)
Tetrachloroethene (PCE)	0.5	ND (0.25)
Trichloroethene (TCE)	0.5	ND (0.25)
Vinyl chloride (VC)	0.1	ND (0.05)

Notes:

COC: chemical of concern

µg/L: micrograms per liter

ND: The analyte was not detected above the limit of detection (LOD).

NS: not sampled.

J: Estimated results below the limit of quantitation (LOQ).

TS-OU2-INJ: Injection point of compliance, the OU2 effluent pipeline.

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

Results in **bold** and shaded are concentrations above the ACL

Results in *gray* are ND

March 2018 Key Events for OU2

- Burleson using treated water for irrigation project.
- March 1: OU2 GWTP shutdown for 16 hours due to power outage. EW-OU2-03-180 offline until March 5 due to VFD issue. EW-OU2-06-180 and EW-OU2-16-A offline until March 6 due to PLC/VFD issue.
- March 5-8: First Quarter 2018 Groundwater Monitoring Program.
- March 13: OU2 GWTP shutdown for five hours due to power outage. Western network issues: EW-OU2-02-A pump failure, communications issue at EW-OU2-04-A repaired on March 20, EW-OU2-05-A starter motor failed (replaced and online April 3).
- March 26-29: OU2 GWTP shut down for 78 hours due to JV construction.

April 2018 Key Events for OU2

- Coordinate with JV and Burleson for treated water use.
- Continue to prepare for GWTP decommissioning.
- Coordinate with Sea Haven developer for extraction well surface adjustments at EW-OU2-09-A and EW-OU2-10-A and decommissioning of EW-OU2-08-A.
- Prepare for 2018 well decommissioning of four OU2 A-Aquifer monitoring wells.
- Prepare for 2018 well installation of one new OU2 A-Aquifer monitoring well.



Table 3. OU2 A-Aquifer Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	Select COC Concentrations (µg/L)									
		4Q 2017					1Q 2018*				
		TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC
ACL:		5.0	3.0	5.0	0.5	0.1	5.0	3.0	5.0	0.5	0.1
1	EW-OU2-16-A	4.1	3.0	9.0	3.3	1.1	3.0	2.9	7.5	2.3	0.88
1	MW-OU2-02-A	0.33 J	2.0	6.8	1.7	8.3	0.18 J	2.4	7.0	1.4	10.5
1	MW-OU2-73-A	ND (0.25)	0.87	8.5	1.5	11.6	ND (0.25)	1.2	5.8	1.0	11.4
1	MW-OU2-44-A	8.3	10.3	19.9	6.0	1.2	5.9	7.8	17.1	4.5	0.94
2	EW-OU2-15-A	NS	NS	NS	NS	NS	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)
2	MW-OU2-27-A	ND (0.25)	2.8	0.23 J	ND (0.25)	ND (0.05)	ND (0.25)	2.9	0.22 J	ND (0.25)	ND (0.05)
3	EW-OU2-09-A	0.28 J	0.30 J	0.14 J	0.32 J	ND (0.05)	0.25 J	0.27 J	0.10 J	0.24 J	ND (0.05)
3	EW-OU2-10-A	2.2	1.2	0.92	0.96	ND (0.05)	1.9	1.1	0.75	0.87	ND (0.05)
3	EW-OU2-12-A	7.4	4.2	7.4	1.3	0.14	7.3	3.8	6.2	1.5	0.13
3	EW-OU2-13-A	7.9	2.5	2.1	4.0	ND (0.05)	7.4	2.4	1.8	3.6	ND (0.05)
3	MW-OU2-25-A	1.1	0.47 J	0.52	0.58	ND (0.05)	1.0	0.37 J	0.44 J	0.44 J	ND (0.05)
3	MW-OU2-75-A	2.7	4.8	5.1	ND (0.25)	ND (0.05)	2.7	5.3	6.2	ND (0.25)	ND (0.05)
3	MW-OU2-81-A	8.5	13.4	4.8	0.15 J	ND (0.05)	10.1	12.2	4.3	0.16 J	ND (0.05)
4	EW-OU2-02-A	0.42 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)	0.41 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)
4	EW-OU2-04-A	1.6	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)	1.6	ND (0.25)	0.10 J	ND (0.25)	ND (0.05)
4	EW-OU2-05-A	4.6	0.24 J	0.25 J	ND (0.25)	ND (0.05)	4.3	0.24 J	0.24 J	ND (0.25)	ND (0.05)
4	EW-OU2-06-A	3.3	0.32 J	0.18 J	ND (0.25)	ND (0.05)	3.0	0.29 J	0.15 J	ND (0.25)	ND (0.05)
4	MW-OU2-04-A	4.2	0.70	0.34 J	0.13 J	ND (0.05)	4.2	0.62	0.32 J	0.13 J	ND (0.05)
4	MW-OU2-06AR	1.6	0.46 J	0.15 J	0.18 J	ND (0.05)	1.4	0.65	0.18 J	0.23 J	ND (0.05)
4	MW-OU2-40-A	6.1	0.45 J	0.42 J	0.11 J	ND (0.05)	4.6	0.46 J	0.32 J	ND (0.25)	ND (0.05)
N/A	MW-OU2-08-A	7.2	6.3	24.6	0.59	0.41	6.1	5.0	21.9	0.69 J	0.46

Table 4. OU2 Upper 180-Foot Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	TCE Concentration (µg/L)	
		4Q 2017	1Q 2018*
ACL:		5.0	
5	EW-OU2-01-180	11.3	11.8
5	MW-OU2-43-180	3.4	4.7
6	EW-OU2-03-180	9.8	8.8
6	MW-OU2-50-180	11.1	10.0
7	EW-OU2-06-180	6.5	5.3
7	MW-OU2-81-180	8.0	7.1
7	MW-OU2-44-180	18.5	15.5
9	MW-OU2-06-180R2	3.2	2.8

Notes:

ACL: Aquifer Cleanup Level

COC: chemical of concern

1,2-DCA: 1,2-dichloroethane

TCE: trichloroethene

PCE: tetrachloroethene

1,1-DCA: 1,1-dichloroethane

µg/L: micrograms per liter

NS: not sampled

ND: The analyte was not detected above the detection limit.

J: Estimated result with a high (+) or low (-) bias.

¹ Hydraulic zones are identified in the Groundwater QAPP.

² Extraction wells not listed have met the QAPP decision rules to no longer operate.

Results in **bold** and shaded are concentrations above the ACL

Results in gray are ND

Results in brackets from a second deeper passive diffusion bag

* Preliminary results



Table 5: OU2 Well Decommissioning 2018*

Well ID	Aquifer	Notes
MW-OU2-33-A	A	Well installed in 1992. Last sampled in 2002, TCE always ND, currently used for DTW but not needed.
MW-OU2-36-A	A	Well installed in 1993. Last sampled in 2002, TCE always below ACL, currently used for DTW but not needed.
MW-OU2-59-A	A	Well installed in 1997. Not in sensitive habitat area (near southern FONR). Last sampled in 2012, TCE always below ACL, currently used for DTW but not needed.
MW-OU2-60-A	A	Well installed in 1997. Last sampled in 2011, TCE always below ACL, currently used for DTW but not needed.

Notes:

* Sampling no longer conducted and water levels unnecessary as listed in the OU2 Annual Report.

ACL: aquifer cleanup level

DTW: depth to water

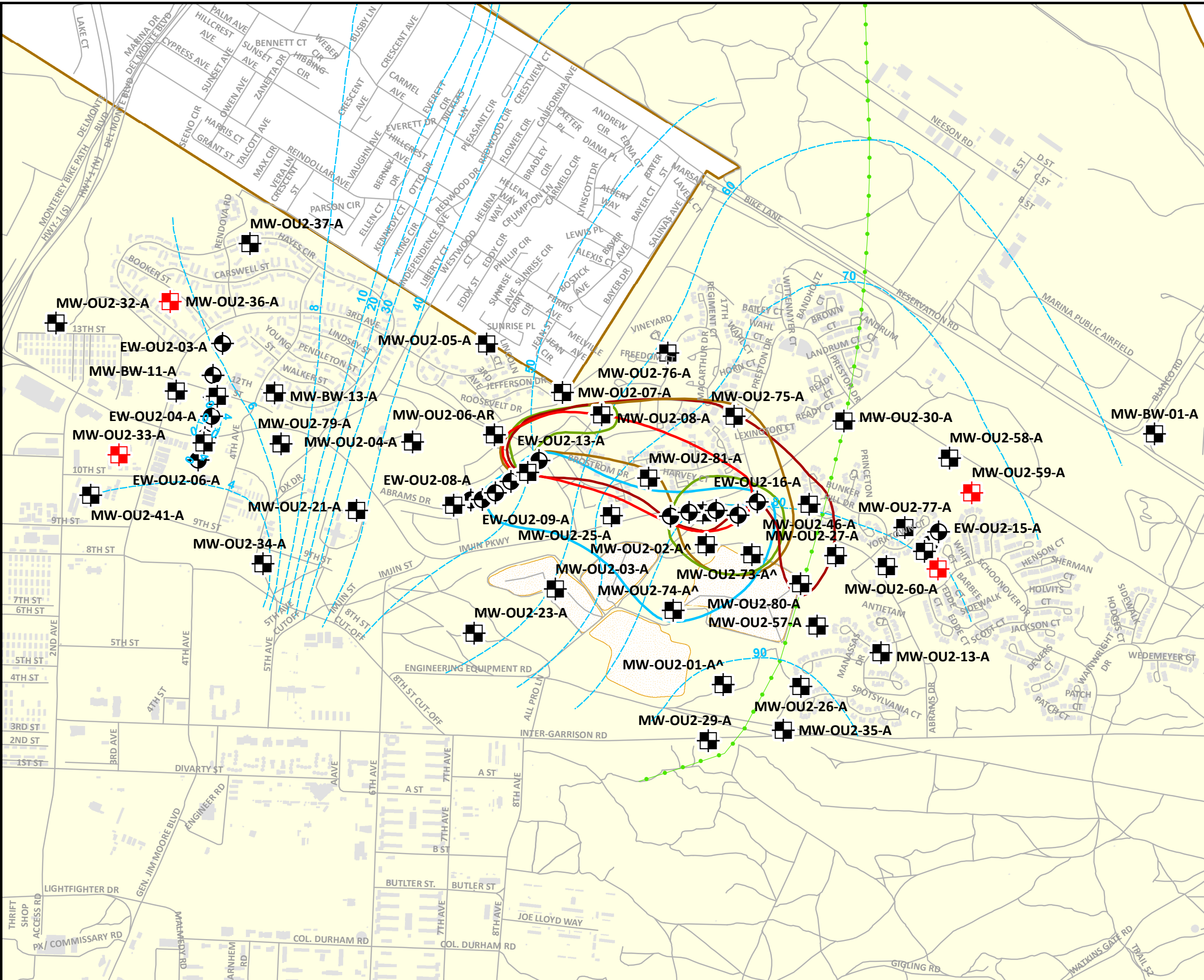
FONR: Fort Ord Natural Reserve

ND: not detected

TCE: trichloroethene

Table 6: OU2 Well Installation 2018

Tentative Well ID	Aquifer	Notes
MW-OU2-83-A	A	



Legend

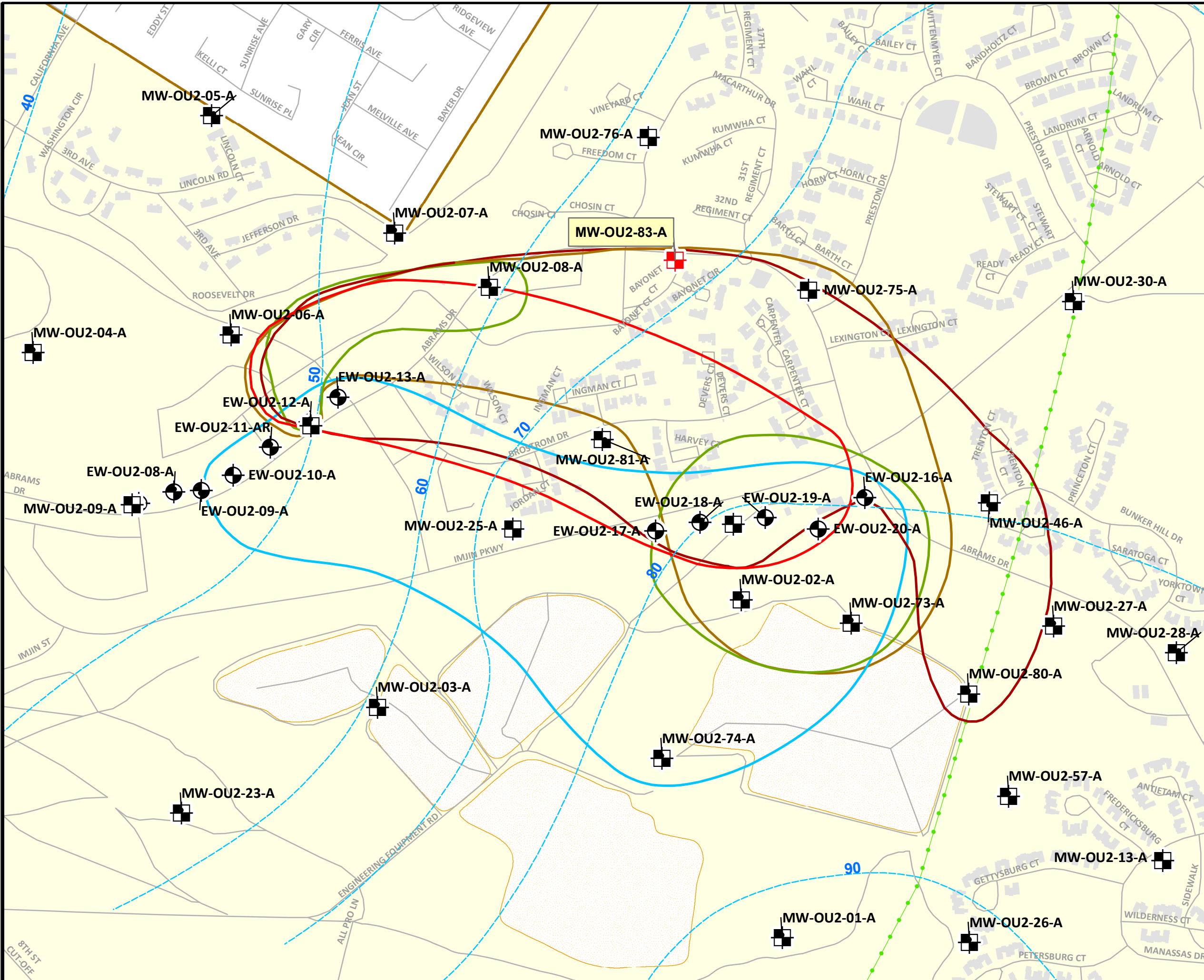
- Groundwater Divide
- COC ACL Exceedance 2017-4Q**
- 1,1-DCA (5 ug/L)
- 1,2-DCA (0.5 ug/L)
- PCE (3 ug/L)
- TCE (5 ug/L)
- VC (0.1 ug/L)
- - - Groundwater Elevation (ft MSL) 2017-4Q
- Roads
- Buildings
- Former Fort Ord Boundary
- OU2 Landfills
- OU2 A-Aquifer Well Type**
- Extraction Well
- Monitoring Well
- Monitoring Well - To Decommission

0 750 1,500 3,000 Feet

**OU2 A-Aquifer
Monitoring Well
Decommissioning Locations**

Well Decommissioning
Work Plan
Former Fort Ord, California





Legend

- Proposed Well Location
- ⊕ Existing Extraction Well
- Existing Monitoring Well

OU2 A-Aquifer Well Type

- ⊕ Existing Extraction Well
- Existing Monitoring Well

COC ACL Exceedance 2017-4Q

- 1,1-DCA (5 ug/L)
- 1,2-DCA (0.5 ug/L)
- PCE (3 ug/L)
- TCE (5 ug/L)
- VC (0.1 ug/L)
- - - Groundwater Elevation (ft MSL) 2017-4Q
- - - Groundwater Divide
- Roads
- Buildings
- OU2 Landfills
- Former Fort Ord Boundary

0 300 600 1,200 Feet

N

**OU2 A-Aquifer
New Monitoring Well Location**

Well Installation
Work Plan
Former Fort Ord, California