



Former  
Fort Ord,  
Monterey  
County,  
California

## Groundwater Cleanup Update


Community Involvement Mobile Workshop, February 21, 2015

Technical Review Committee Meeting, February 24, 2015

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Ahtna Environmental Inc.



# Fort Ord Groundwater: Definitions



**ACL** – Aquifer Cleanup Level, the cleanup goal for a COC in groundwater identified in a Record of Decision (typically the same as the MCL or lower).

**Aquifer** – a body of rock or soil that is sufficiently permeable for groundwater to flow and serve as a water source.

**Aquitard** – a body of less permeable rock or soil between aquifers that retards the flow of water between the aquifers.

**COCs** – chemicals of concern (present in groundwater).

**CT** – carbon tetrachloride, primary COC at OUCTP.

**Groundwater** – all water under the ground, not water on the surface (rivers, lakes, etc.)

**MCL** – Maximum Contaminant Level, the maximum allowable concentration of a COC in drinking water.

**OU** – Operable Unit, discrete portion of remedial response that manages migration, or eliminates or mitigates a pathway of exposure.

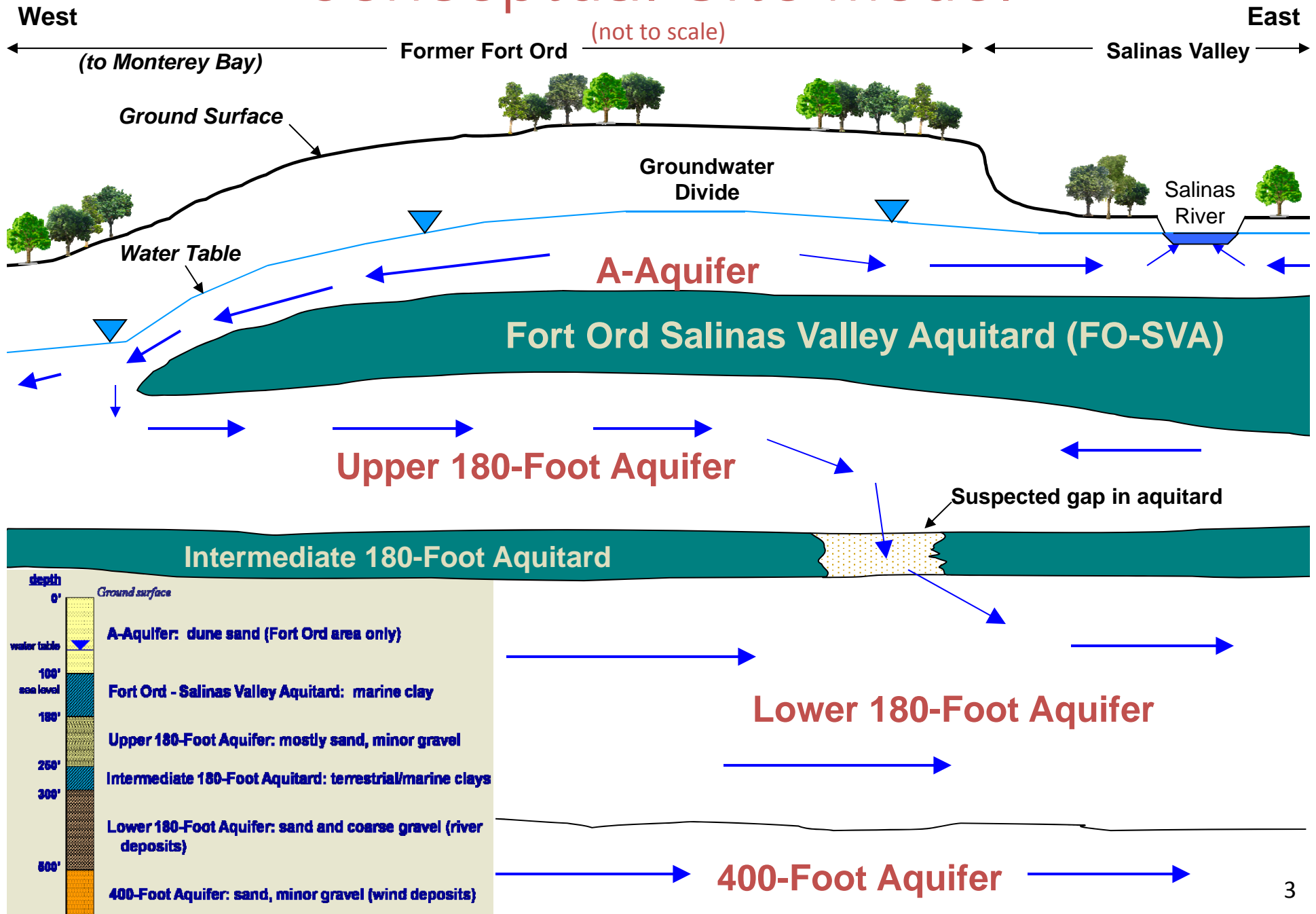
**PCE** – tetrachloroethene, primary COC at Sites 2/12.

**Plume** – area of aquifer in which COCs are present at concentrations greater than the ACL.

**TCE** – trichloroethene, primary COC at OU1 and OU2.

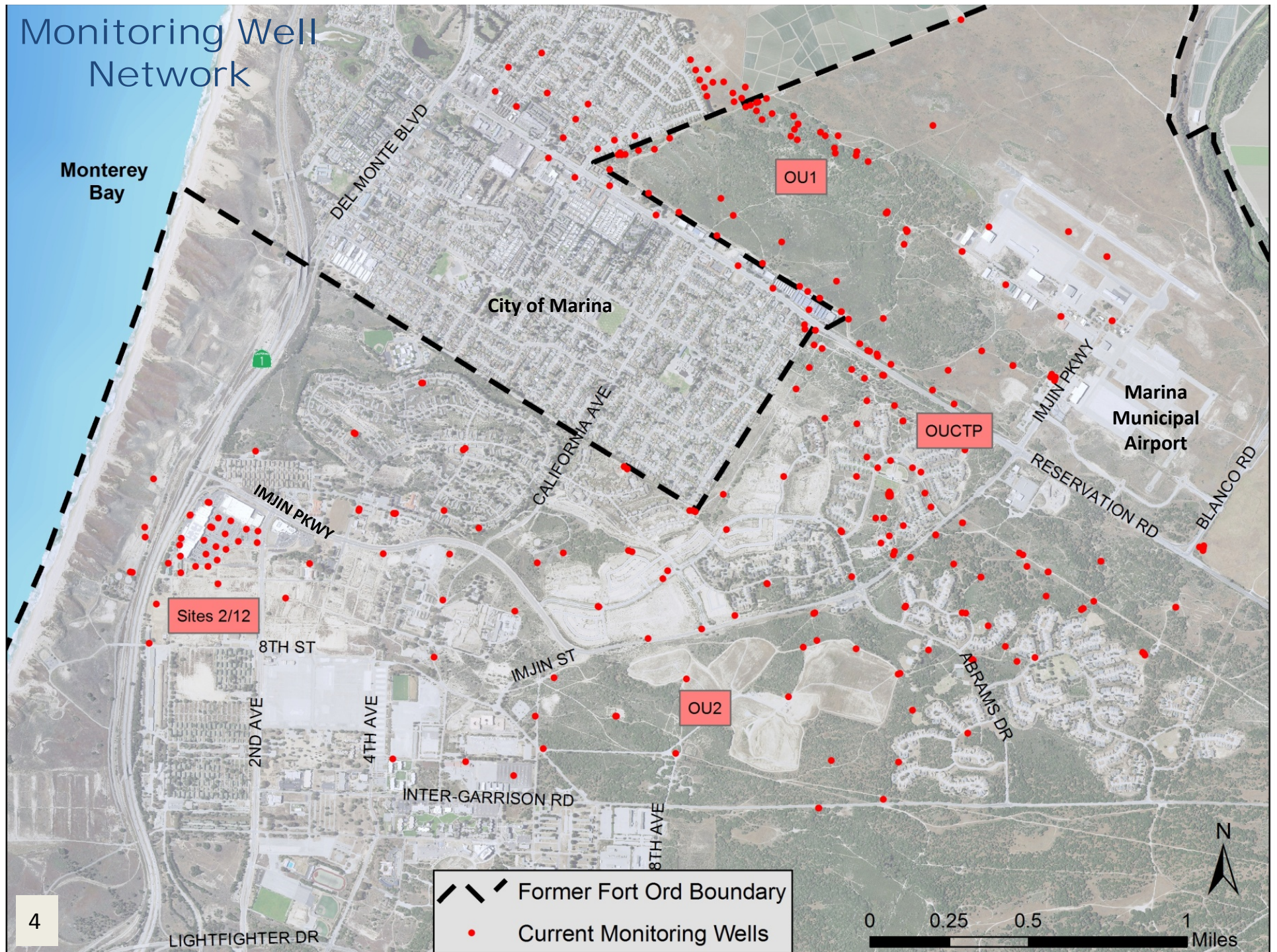
**Water Table** – depth below ground surface at which groundwater is found (at the top of the saturated zone).

# Conceptual Site Model

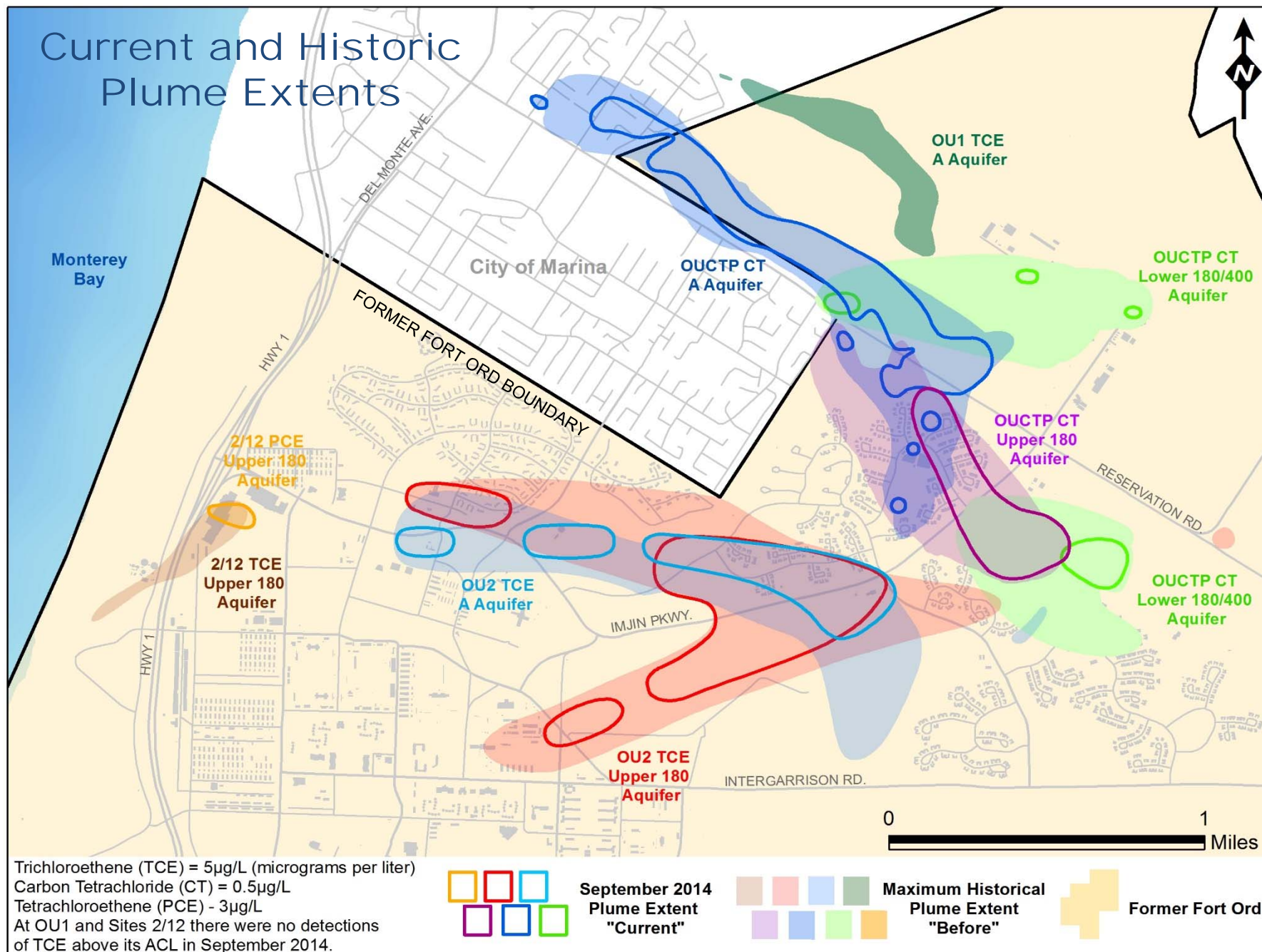




# Monitoring Well Network







# Groundwater Extraction and Treatment System Status

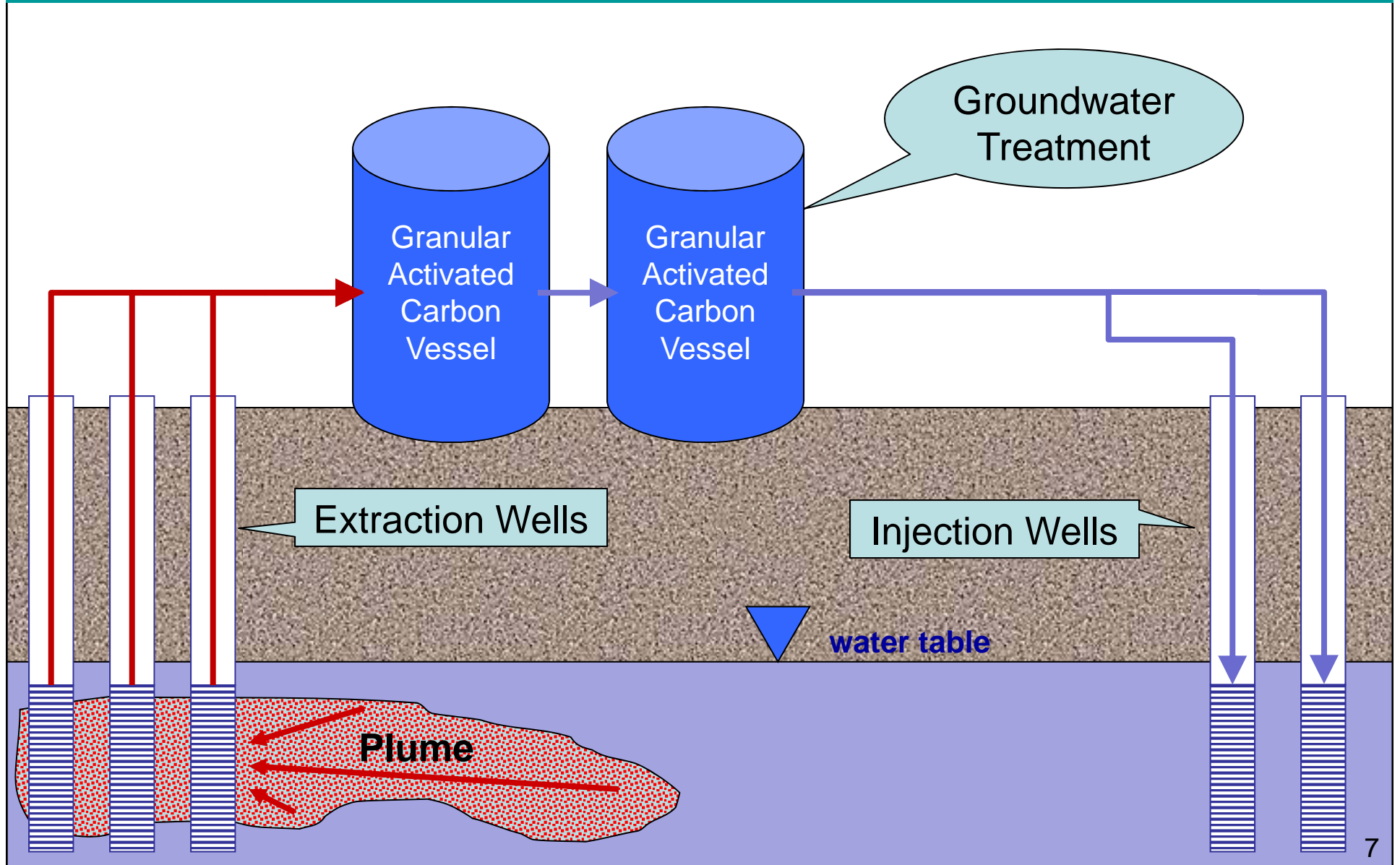
as of December 31, 2014

	<b>OU1*</b>	<b>OU2/OUCTP</b>	<b>Sites 2/12</b>
Treatment started	July 1988	October 1995	April 1999
Gallons treated	319.3 million	6.425 billion	1.794 billion
Pounds of contaminants removed	31	772	467
Gallons of contaminants removed	3	62	37

\*In attainment monitoring phase and being evaluated for site closure.



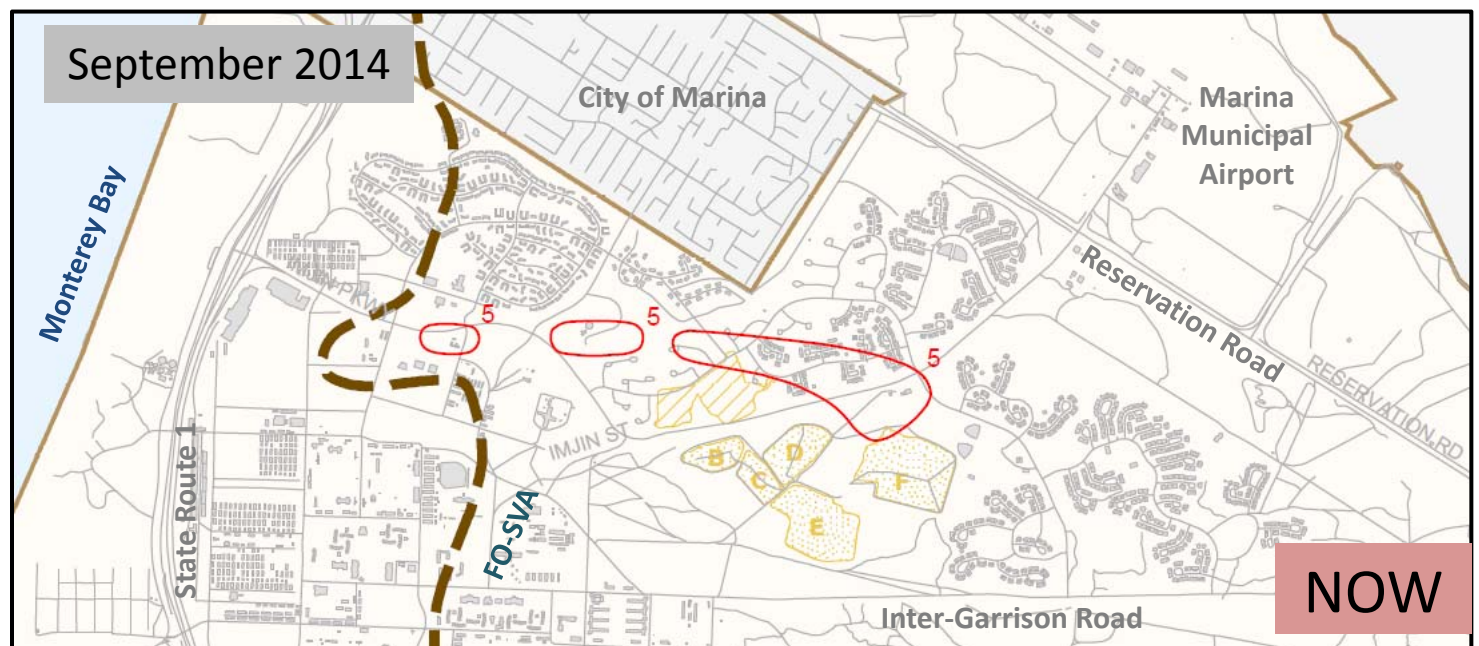
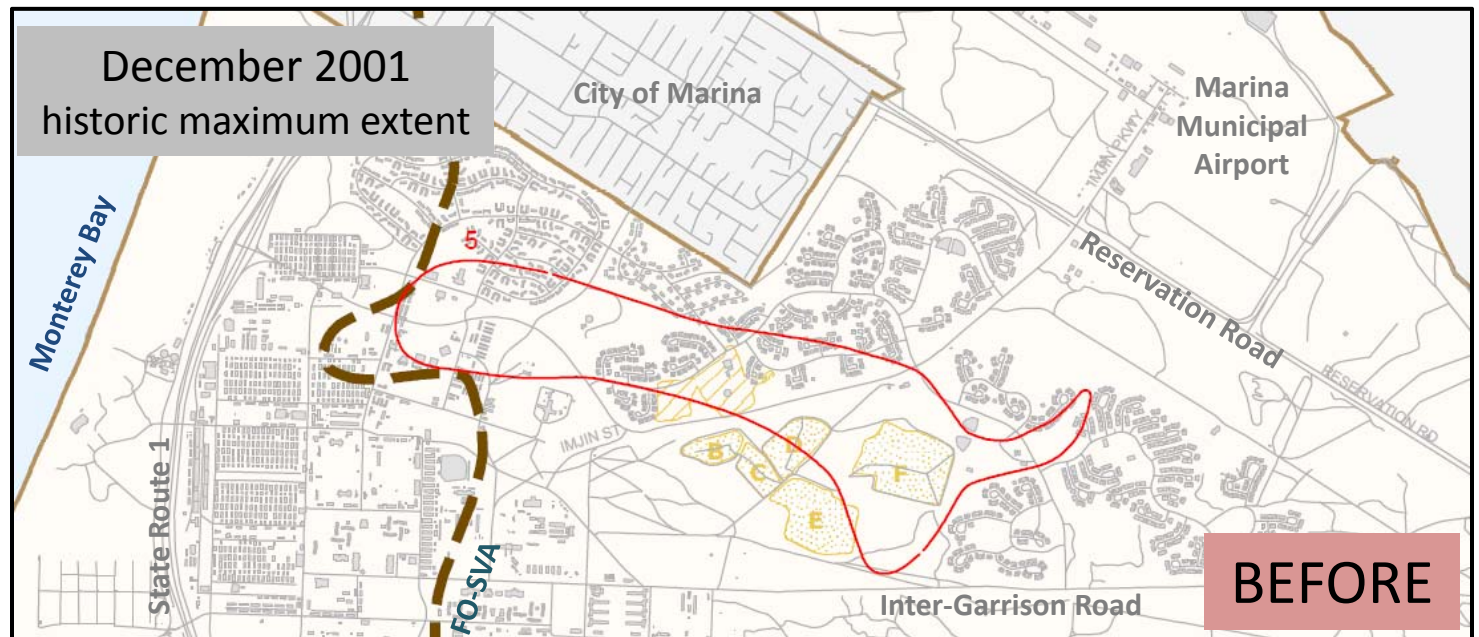
# Groundwater Extraction and Treatment Systems Schematic



TCE at or above  
ACL (5 µg/L)  
Operable Unit 2  
(OU2)  
A-Aquifer



Remedy:  
Groundwater  
Extraction and  
Treatment

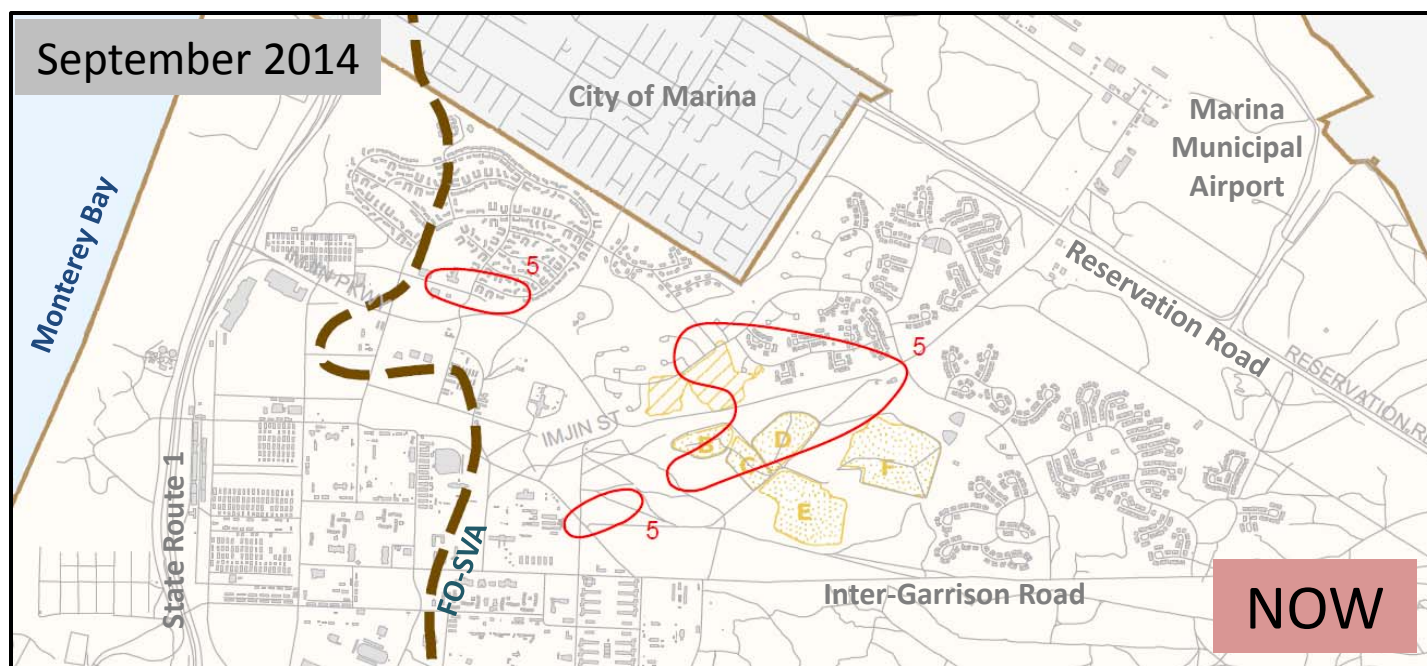
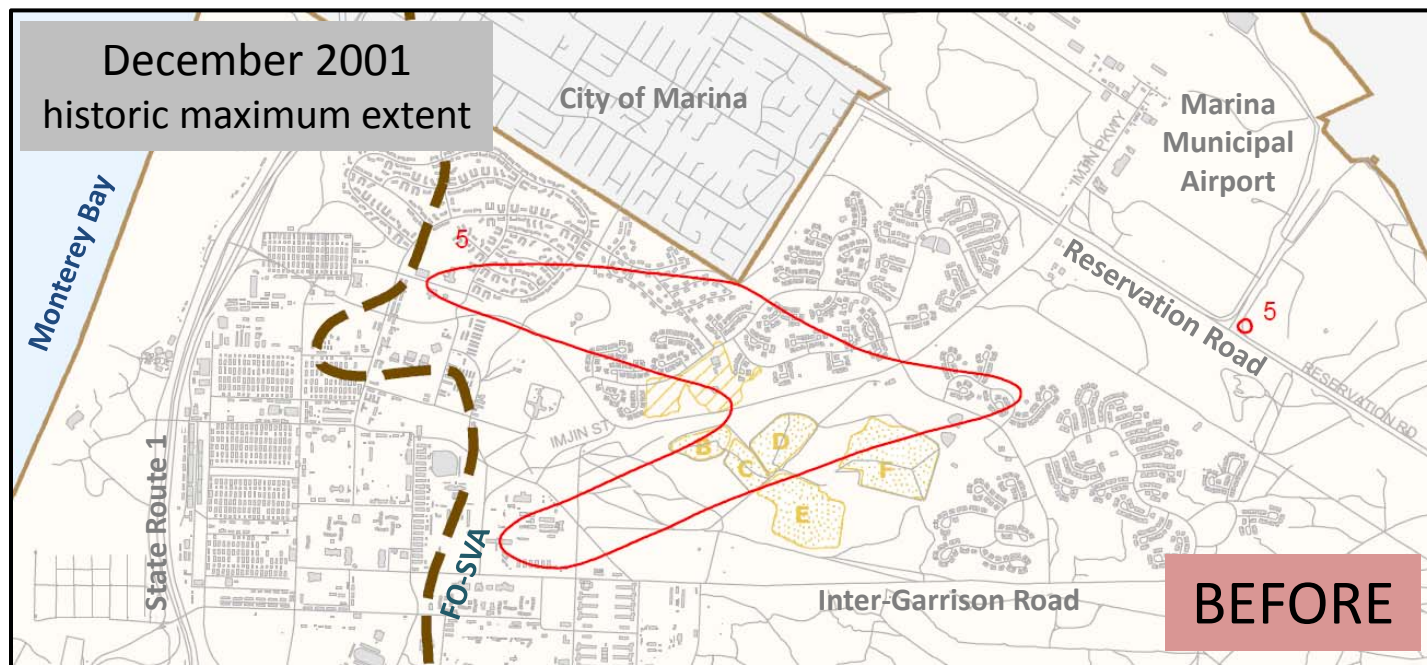




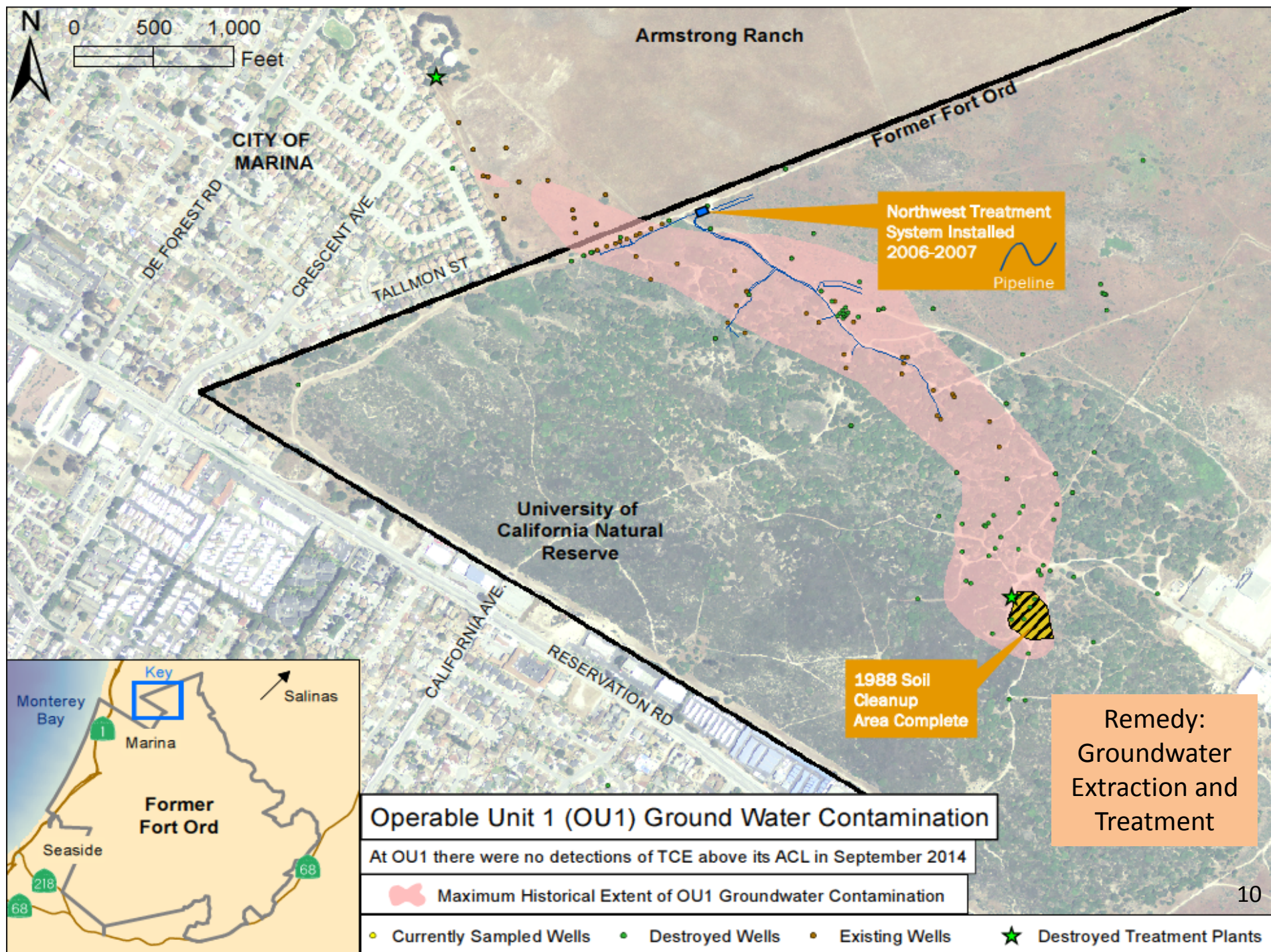
TCE at or above  
ACL ( $5 \mu\text{g/L}$ )  
OU2 Upper 180-  
Foot Aquifer



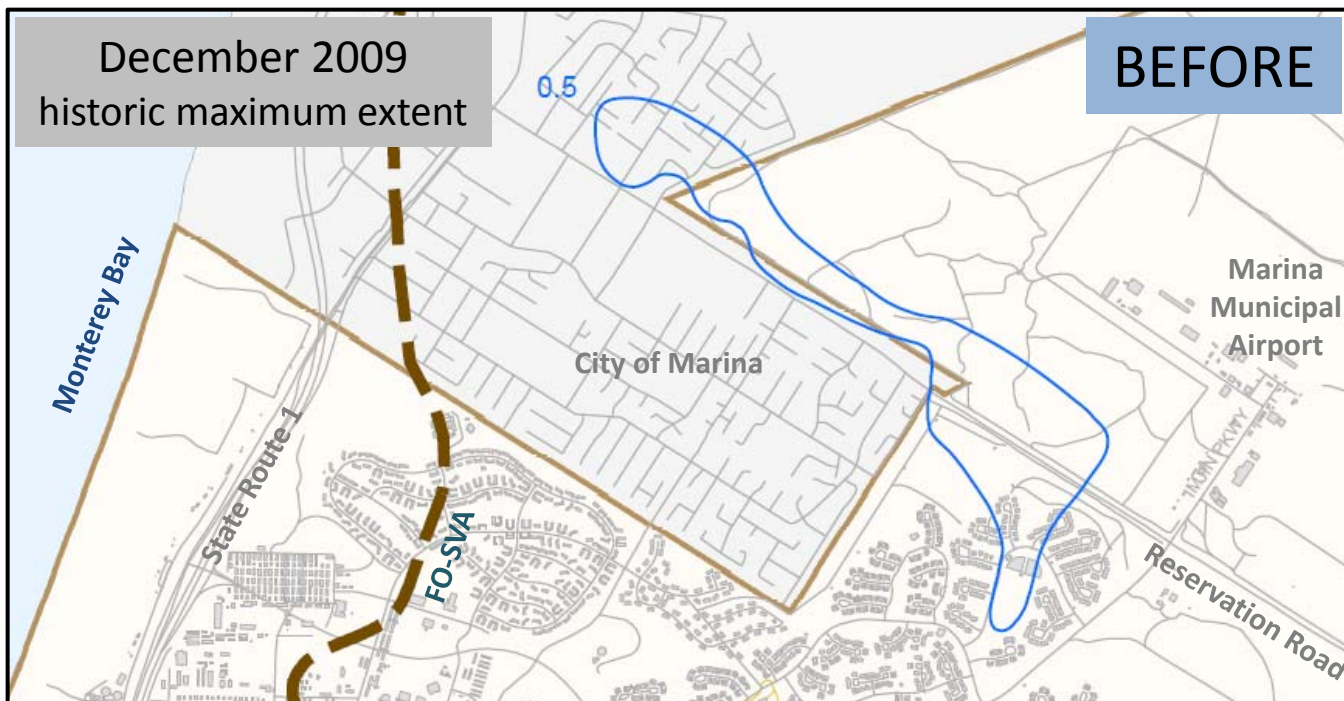
Remedy:  
Groundwater  
Extraction and  
Treatment



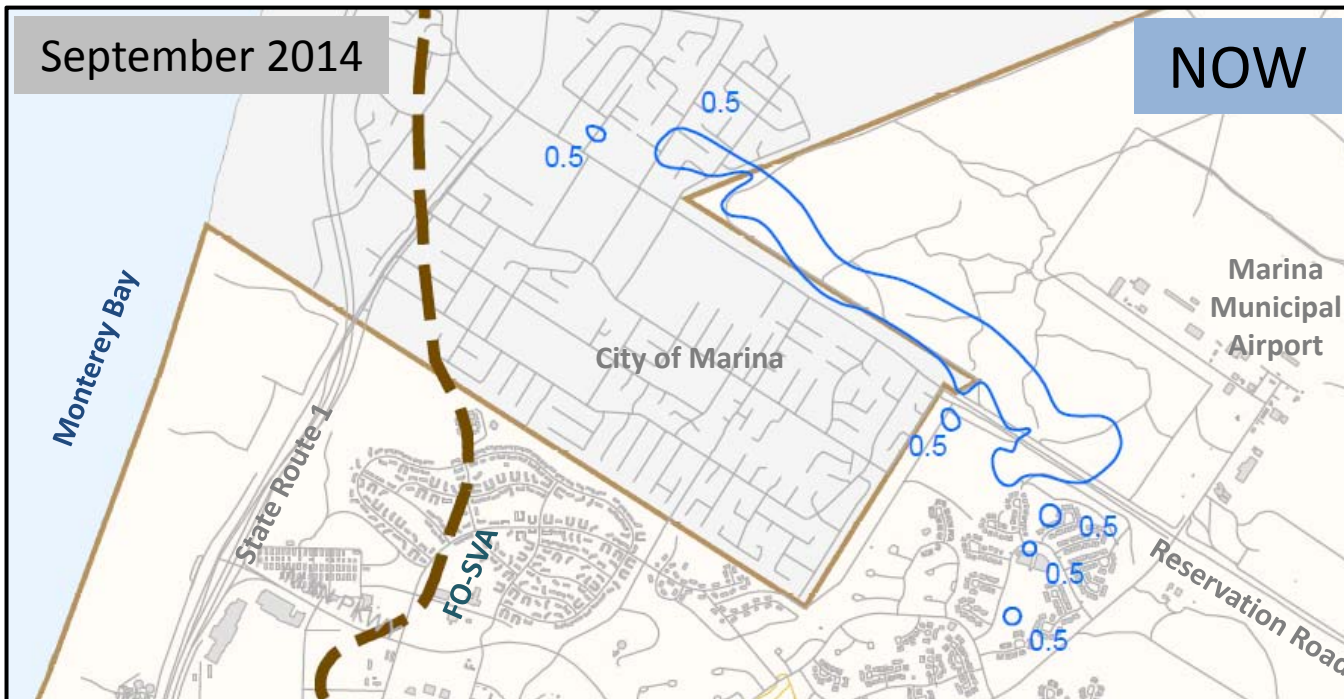






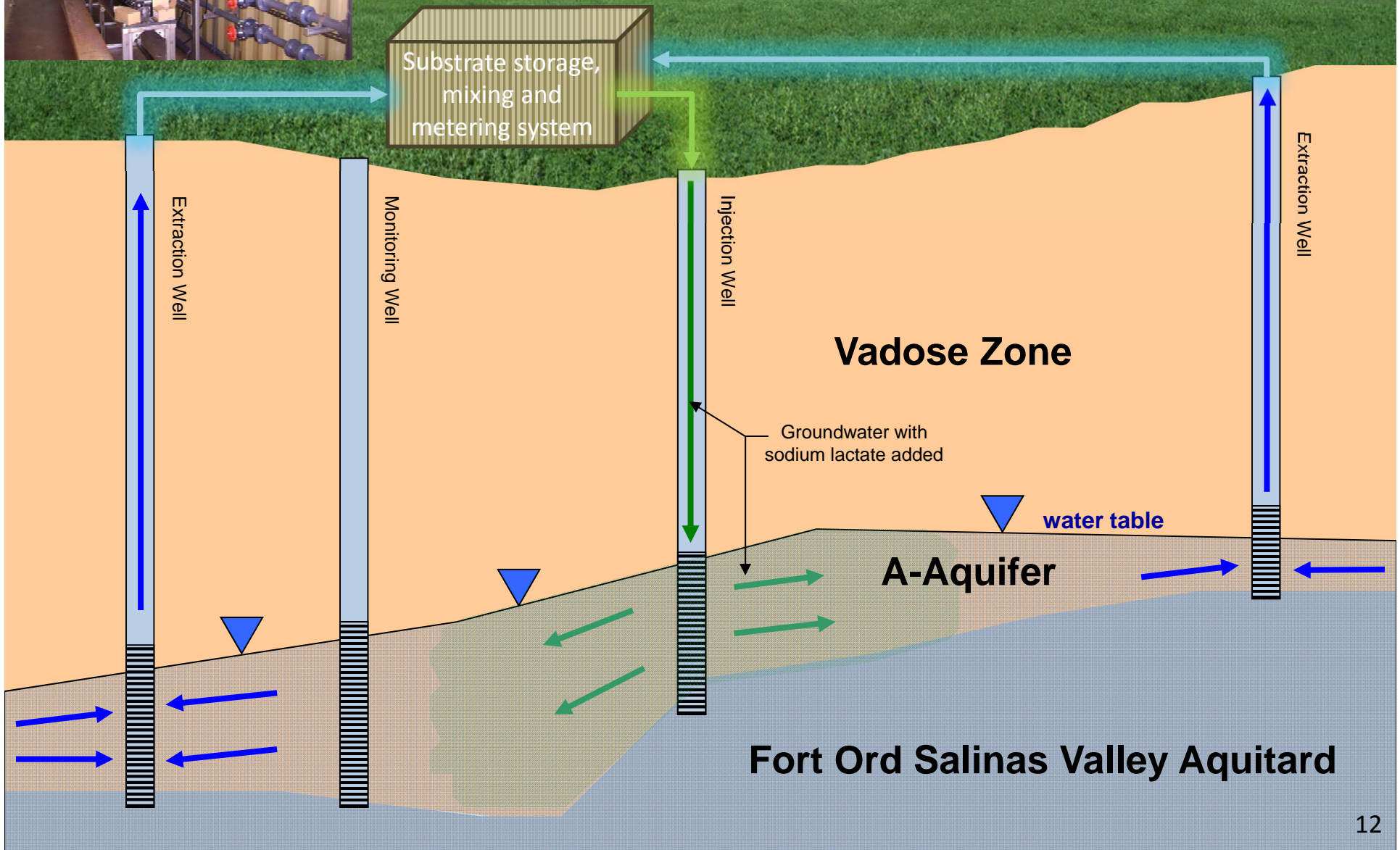


CT at or above  
ACL ( $0.5 \mu\text{g/L}$ )  
Operable Unit  
Carbon  
Tetrachloride  
Plume (OUCTP)  
A-Aquifer

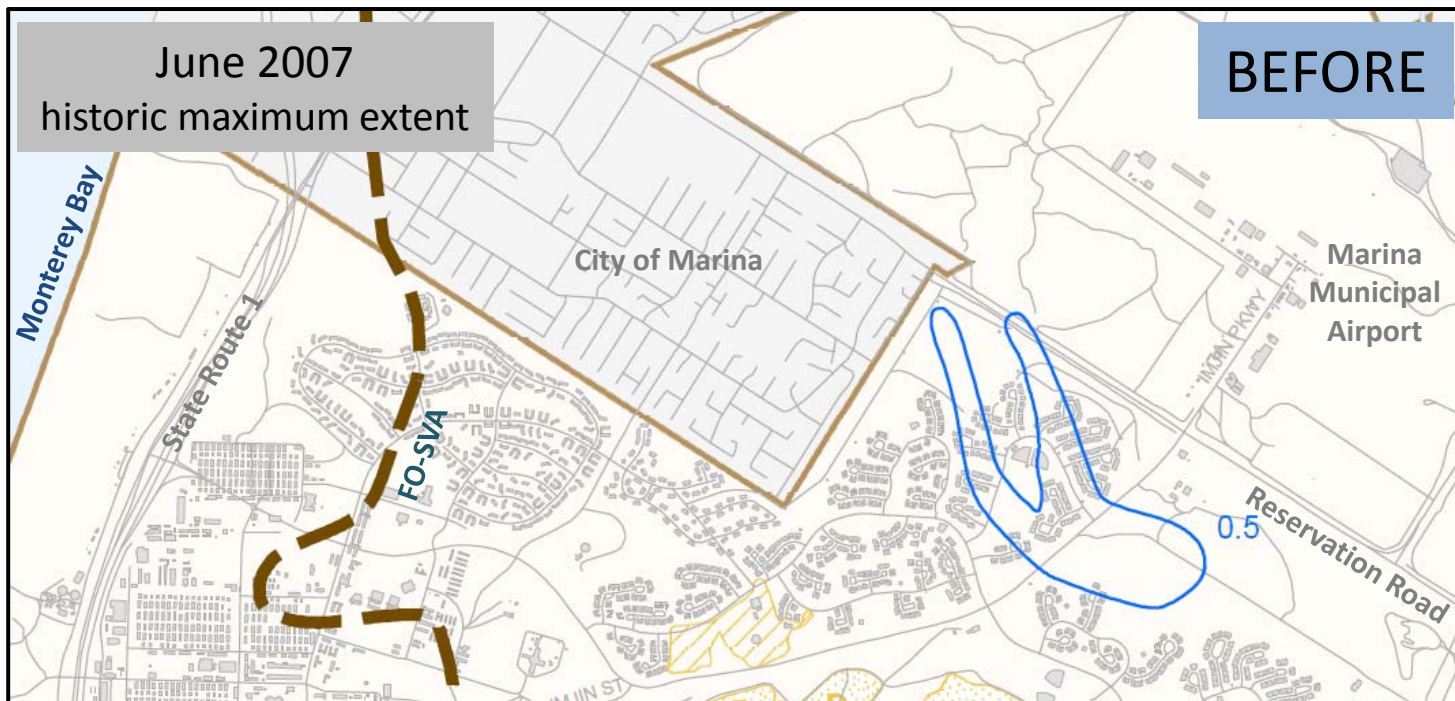


Remedy:  
Enhanced *In Situ*  
Bioremediation  
(EISB)

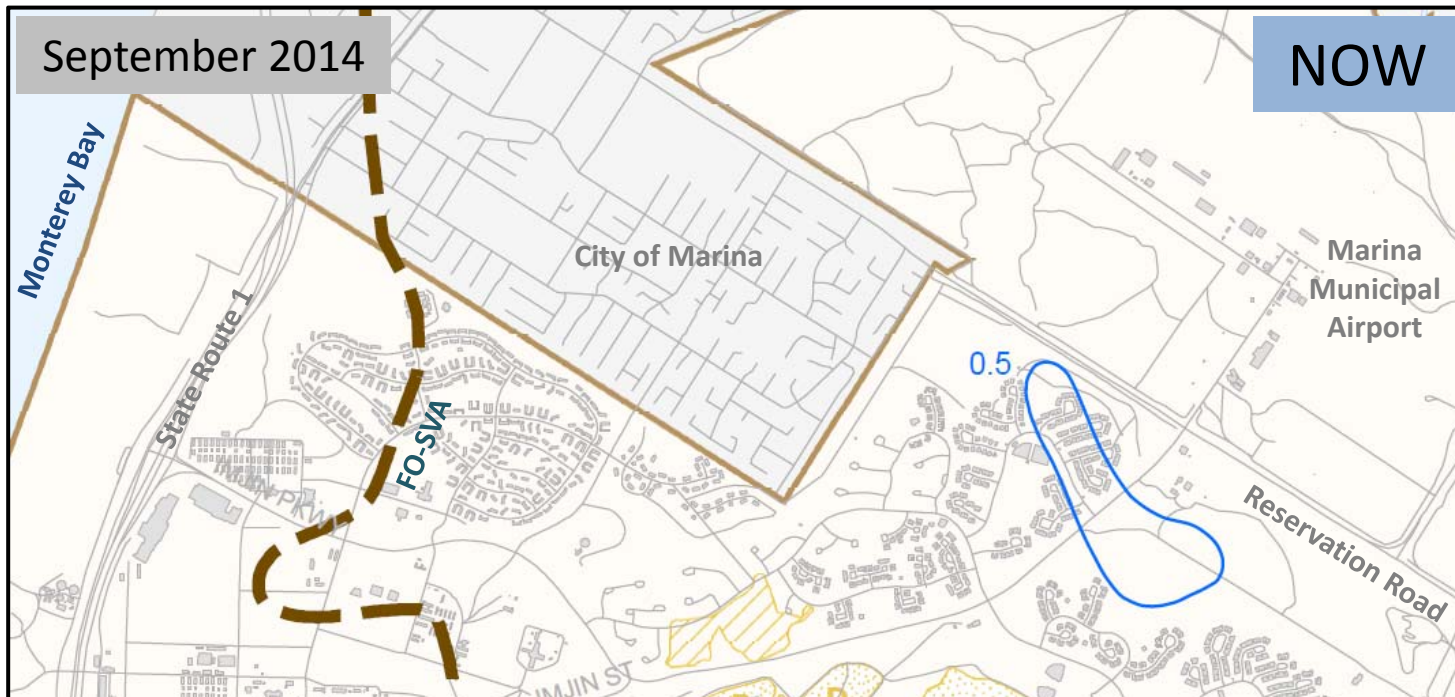
# Enhanced *In Situ* Bioremediation System Schematic



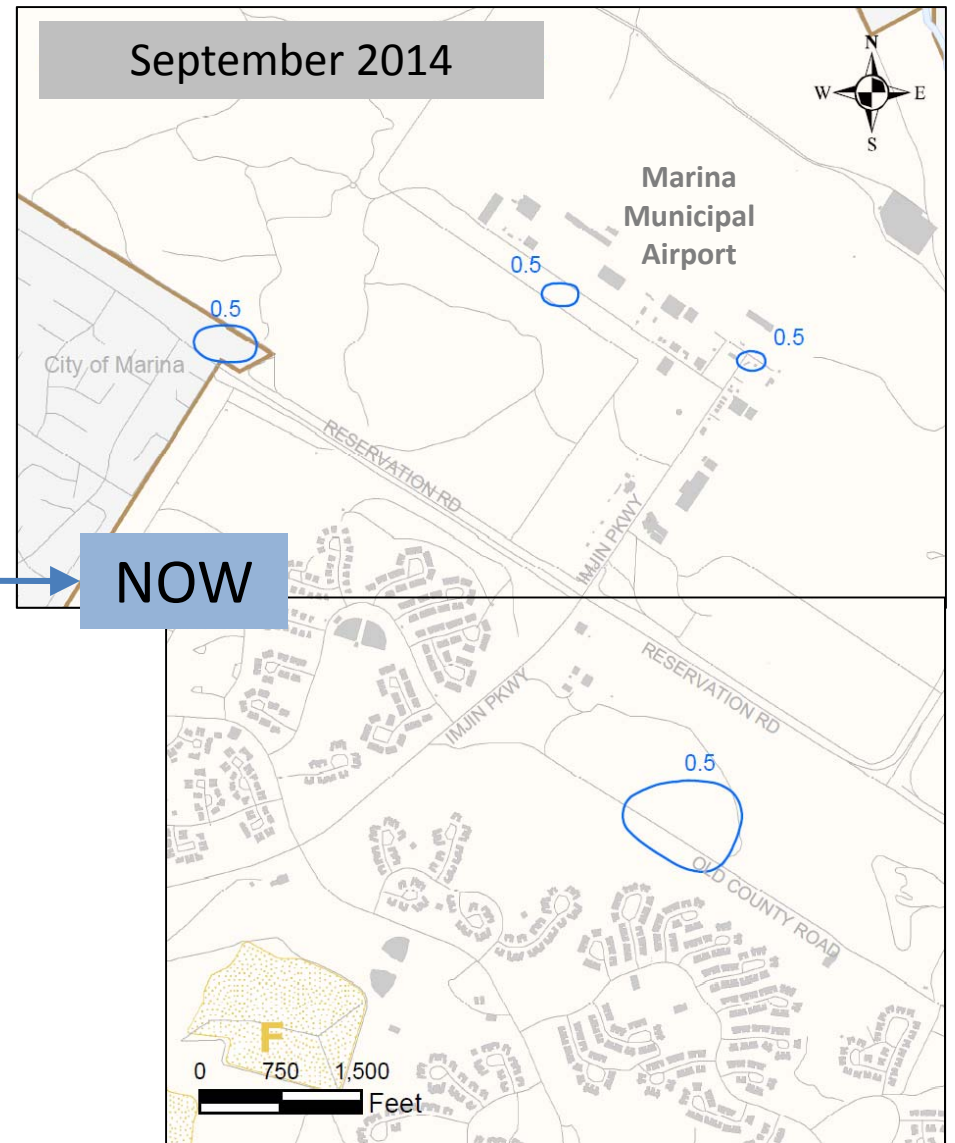
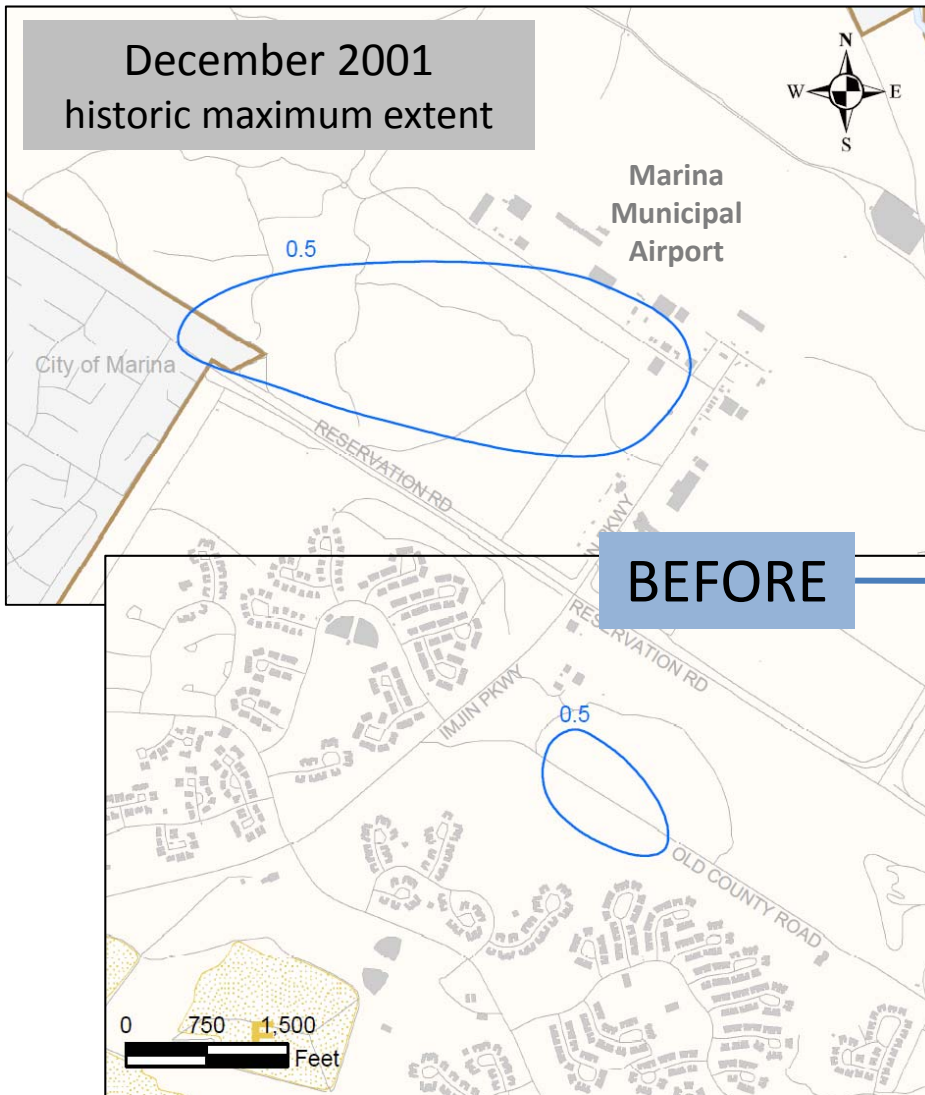




CT at or above  
ACL ( $0.5 \mu\text{g/L}$ )  
OUCTP  
Upper 180-Foot  
Aquifer



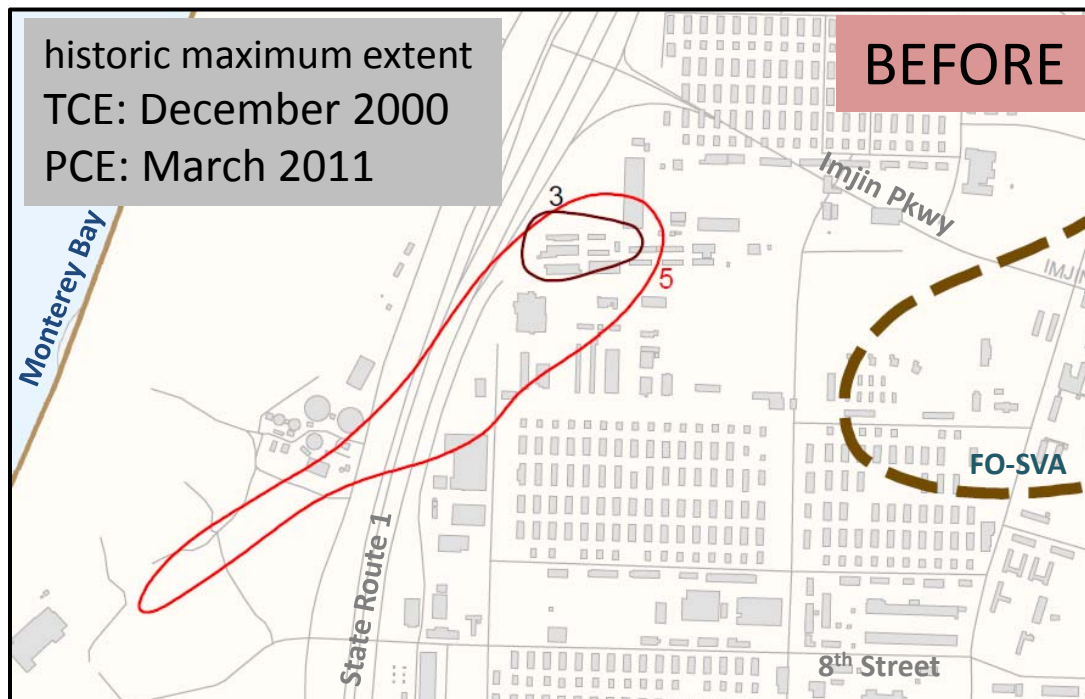
Remedy:  
Groundwater  
Extraction and  
Treatment



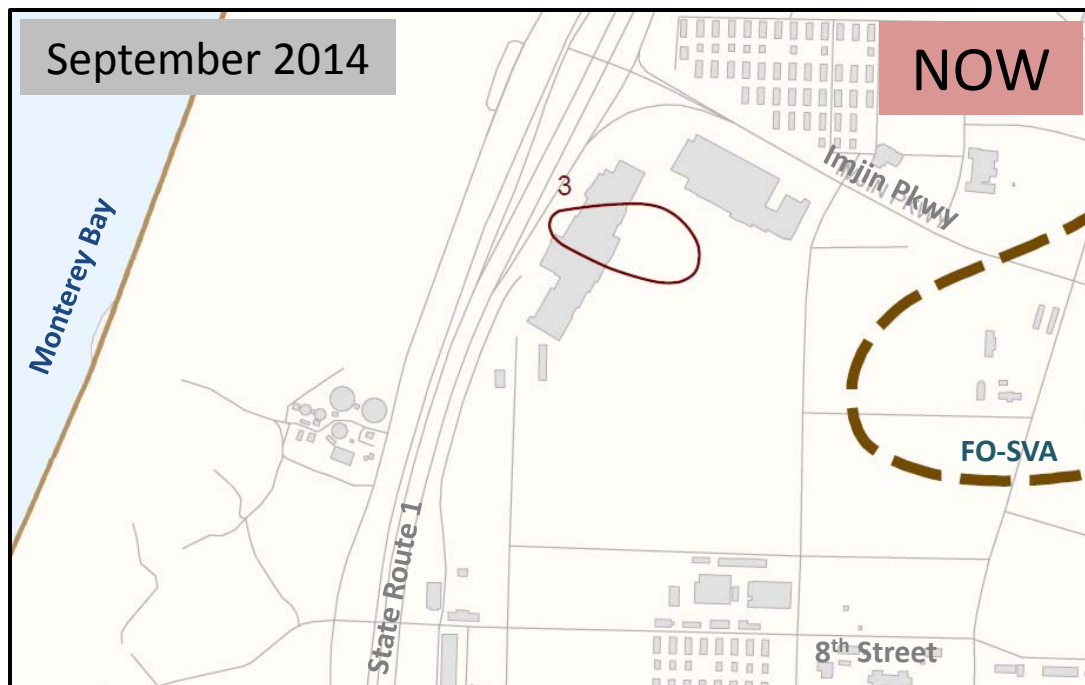
CT at or above ACL ( $0.5 \mu\text{g/L}$ )  
OUCTP Lower 180-Foot Aquifer

Remedy: Monitored  
Natural Attenuation





TCE at or above ACL ( $5 \mu\text{g/L}$ )  
PCE at or above ACL ( $3 \mu\text{g/L}$ )  
Sites 2 and 12  
Upper 180-Foot Aquifer  
West of the FO-SVA



Remedy: Groundwater  
Extraction and Treatment

# For Additional Information

Visit the Army's website at:  
[www.fortordcleanup.com](http://www.fortordcleanup.com)

Visit the Fort Ord Administrative Record at:  
Building 4463 Gigling Road, Room 101  
Ord Military Community  
Seaside CA 93955  
(831) 393-9693  
[adminrecord@fortordcleanup.com](mailto:adminrecord@fortordcleanup.com)

