Fort Ord Cleanup Fact Sheet: Operable Unit 2 (OU2): Groundwater Cleanup

History:

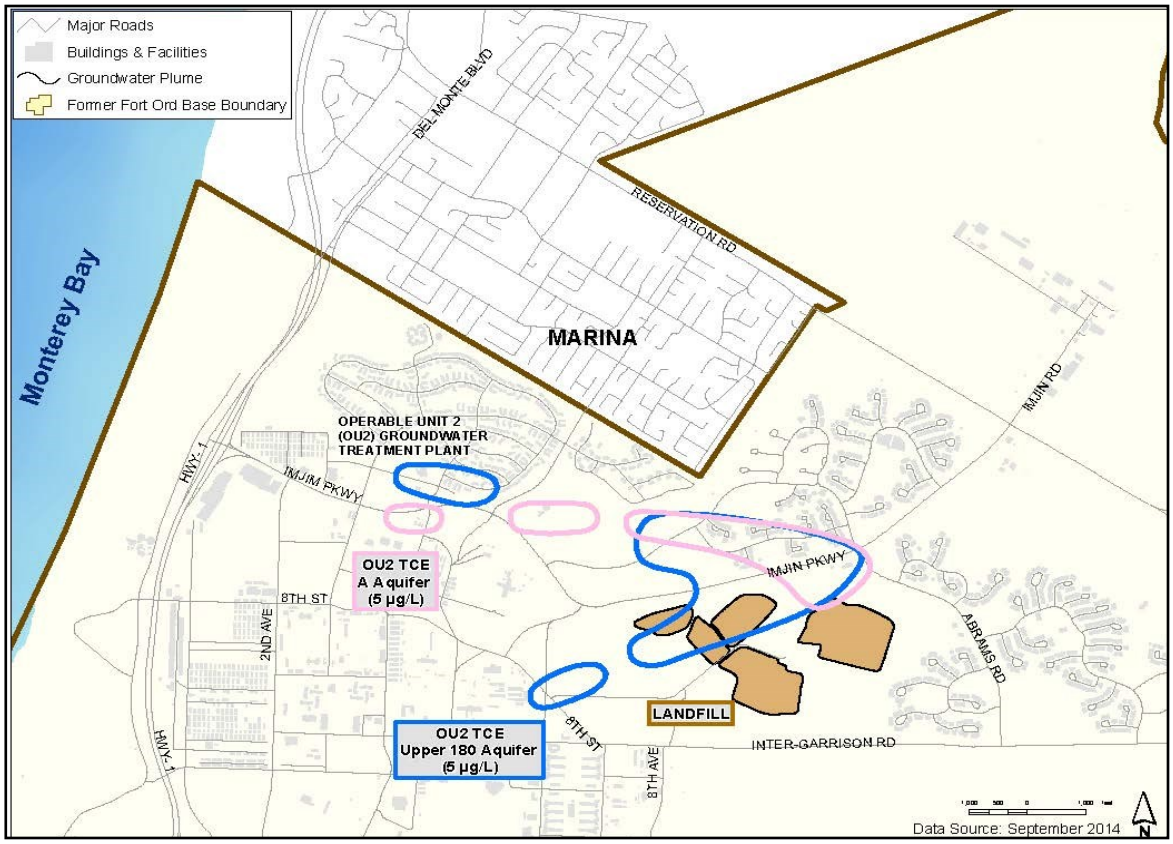
The Army operated landfills (located south of the corner of Imjim Parkway and Abrams Roads) during the years Fort Ord served as a training base. The landfills provided waste disposal for Fort Ord's housing, offices, and support facilities such as machine shops and motor pools. The Army stopped accepting waste at the landfills in 1987. Operable Unit 2 or OU2, the Fort Ord Landfills site, consisted of 6 cells (A through E) covering approximately 150 acres (see photo at right). In the late 1990s, contents of Cell A (about 50 acres) were excavated and placed into the other cells. Like many municipal landfills from this era, Fort Ord's landfills were found to be leaching contaminants into the groundwater beneath it.

What chemicals have been found in the groundwater related to OU2?

Eleven chemicals of concern (COCs) were identified during the Army's investigation of groundwater: benzene, carbon tetrachloride, chloroform, 1,1-dichloroethane, 1,2-dichloroethane, cis-1,2-dichloroethene (DCE), cis-1,2-dichloropropane, dichloromethane, tetrachloroethene (PCE), vinyl chloride, and trichloroethene (TCE). COCs are chemicals present in soil or groundwater at concentrations that could detrimentally affect human health or the environment. Trichloroethene (TCE) is the primary COC at OU2. The groundwater cleanup goal has to meet the Aquifer Cleanup Level (ACL) for TCE is which is 5 micrograms per liter (5 µg/L).

How far does the groundwater contamination extend?

Initially, only the A-Aquifer, the uppermost aquifer, was thought to be contaminated. However, additional investigations found contamination in monitoring wells in the Upper 180-Foot Aquifer which is located just below the A-Aquifer. The map at the right outlines the current footprint (based on September 2014 sampling results) for OU2 TCE contamination areas: light pink shows TCE in the A -Aquifer and blue represents TCE in the Upper 180-foot Aquifer.



What has the Army been doing to clean the water?

As part of the Fort Ord Superfund cleanup, the Army, with oversight by regulatory agencies (listed at the end of this fact sheet), implemented a program to clean up contaminated groundwater. This program included placing an impermeable cover over the landfill to prevent precipitation (such as rain) from moving downward through the waste, and the construction of a groundwater treatment system.

A treatment plant (see the red-roofed building at the photo at the right) removes contamination from groundwater. Water is pumped from wells placed in the areas of contamination, and COCs are removed using carbon filtration -- a good system to remove all 11 COCs. The treated water is then reinjected into the A and Upper 180 foot aquifers.

The OU2 Groundwater Cleanup System: A Top View

Above is a photo of the OU2 treatment plant (built in 1995). The blue tanks are filled with activated carbon and used as part of the OU2 treatment system to clean up contaminated groundwater. This plant will be relocated to an area near the landfill in 2015-2016.

The groundwater treatment system will continue to operate until the impacted groundwater TCE concentration meets the ACL of 5 µg/L, which is equal to federal and state safe drinking water standards. This process will likely continue about 30 years based on current data. The treatment system is tested each week to confirm it is operating properly. The Army conducts quarterly sampling at groundwater monitoring wells to assess groundwater quality in the aquifers and uses the data to determine if further changes to system operations are needed to maximize groundwater cleanup efficiency. The treatment plant will be relocated to an area near the landfill in 2015-2016.

Your drinking water is safe.

Data indicate very low concentrations of TCE have been found in three drinking water supply wells on the former Fort Ord. Concentrations of TCE in the drinking water supply wells are significantly below Federal and State Safe Drinking Water Act maximum contaminant levels. Water pumped from Marina Coast Water District supply wells on former Fort Ord consistently meets the drinking water safety standards established by the U.S. Environmental Protection Agency and the California State Water Resources Control Board, Division of Drinking Water. For more information, see the groundwater cleanup overview fact sheet.

What happens next?

The Army will continue to operate and monitor the groundwater quality at the OU2 groundwater treatment system until the 5 µg/L TCE aquifer cleanup goal is met. The treatment plant will be relocated to an area near the landfill in 2015-2016.

The pumping of additional wells could have an effect on the efficiency of the on-going groundwater treatment. For further assurance that groundwater cleanup remains successful, Monterey County has adopted an ordinance prohibiting new water supply wells in the OU2 area until groundwater cleanup is completed.

To learn more about the Fort Ord Groundwater Cleanup:

U.S. Army Fort Ord Base Realignment and Closure, William Collins, BRAC Environmental Coordinator, (831) 393-1284, Melissa.M.Broadston.ctr@mail.mil. To view site-related documents, go to www.FortOrdCleanup.com to access the Administrative Record.

California Environmental Protection Agency, Department of Toxic Substances Control: Min Wu, (916) 255-3621, Min.Wu@dtsc.ca.gov

California Environmental Protection Agency, Regional Water Quality Control Board: Grant Himebaugh, (805) 542-4636, GHimebaugh@waterboards.ca.gov

Para obtener una copia en Espanol contacte 831-393-1284.