

Fort Ord Cleanup Fact Sheet: Sites 2 and 12 Groundwater Cleanup

History:

Sites 2 and 12 together form one of four groundwater contamination areas on the former Fort Ord. The groundwater contamination was associated with the improper disposal of solvents from former automotive and other repair facilities, is limited to the Upper 180-Foot Aquifer, and moves westward from Site 12 toward Site 2 and the ocean.



As part of the Fort Ord Superfund cleanup, the Army, with oversight by regulatory agencies (listed at the end of this fact sheet), has been implementing a program to clean up the contaminated groundwater to stop further aquifer contamination. This program includes removal of contaminated soil from Site 12 and operation of the groundwater treatment facility (photo above) which extracts and cleans the contaminated groundwater then injects the treated groundwater water back to the aquifer.

What chemicals have been found in the groundwater related to Sites 2 and 12?

Eight chemicals of concern (COCs) were identified during the Army's investigation of groundwater: chloroform, 1,1-dichloroethene, 1,2-dichloroethane, cis-1,2-dichloroethene (DCE), 1,3-dichloropropene (total), 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. PCE is the primary COC. The aquifer cleanup goal has to meet the Aquifer Cleanup Level (ACL) for PCE. The ACL for PCE is 3 micrograms per liter (3 $\mu\text{g/L}$).

The Army has recently conducted a soil gas investigation at Sites 2 and 12. Soil gas, also known as soil vapor, has been evaluated in accordance with state and federal guidelines. Details about this investigation are presented in the Remedial Investigation/Feasibility Study (RI/FS) Addendum which is available in the Administrative Record at www.FortOrdCleanup.com.

How far does the groundwater contamination extend?

The map at the right outlines (in blue) the current footprint of PCE contamination at Sites 2 and 12 based on the September 2014 sampling results. Since April 1999, the groundwater treatment system located at Site 12 has pumped and treated over 1.794 billion gallons of groundwater and removed over 467 pounds of contaminants.



What has the Army been doing to clean the water?

A treatment plant (shown in the photo on page 1) removes contamination from the groundwater. Groundwater is pumped from extraction wells placed in the areas of contamination. The COCs are then removed by carbon filtration and air stripping. Over the years, system modifications to optimize the groundwater treatment system include construction of a pipeline to transport and combine treated groundwater from Operable Unit 2 (OU2) Site 12 before injecting the cleaned groundwater back into the aquifer.

The groundwater treatment system will continue to operate for a few more years until impacted groundwater meets the ACL for PCE (3 µg/L) which is less than or equal to federal and state safe drinking water standards for PCE. The treatment system is tested weekly to ensure proper operation. The treatment system is also periodically adjusted to maximize the efficiency of the groundwater cleanup. Groundwater monitoring wells are sampled every three months to assess the groundwater quality and to determine if further changes to the system operations are needed. Recent evaluation of soil gas suggests using system enhancements to optimize the groundwater cleanup efforts. System enhancements for groundwater cleanup in this area will likely be installed this year. Treatment is expected to continue for another 3 to 4 years as outlined in the RI/FS Addendum.

Your drinking water is safe.

Based on drinking water quality analysis, very low TCE concentrations have been found in three drinking water supply wells on the former Fort Ord. These drinking water supply wells are located far from Sites 2 and 12 where a contaminated groundwater plume is present. Also, the TCE concentrations in the drinking water supply wells are significantly below the Federal and State Safe Drinking Water Act maximum contaminant levels—your drinking water is safe. Groundwater pumped from the Marina Coast Water District supply wells on 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 details, see the groundwater cleanup overview fact sheet.

What happens next?

The Army will continue to monitor Sites 2 and 12 groundwater quality every three months. The groundwater treatment system will be operated until the PCE aquifer cleanup goal is met. Additional pumping from the drinking water supply wells could produce unacceptable levels of untreated groundwater contamination and have an effect on the efficiency of the on-going groundwater treatment. In order to assure that the groundwater cleanup remains successful, Monterey County has adopted an ordinance prohibiting installation of new drinking water supply wells in this area until cleanup is complete.

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.

U.S. Environmental Protection Agency, Region IX: Martin Hausladen, (415) 972-3007, Hausladen.Martin@epa.gov

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.