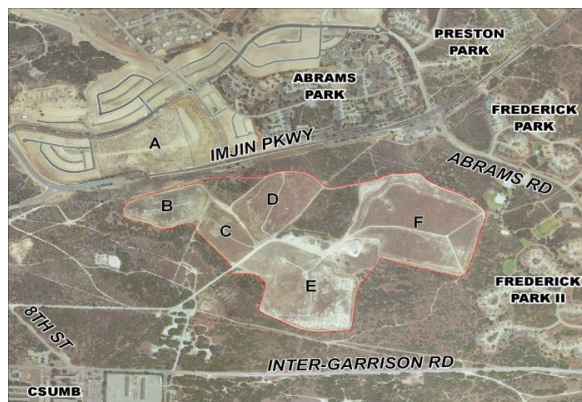


Fort Ord Cleanup Fact Sheet: Operable Unit 2 Groundwater Cleanup

History:

The Army operated a landfill during the years Fort Ord served as a training base. The landfill provided garbage disposal for Fort Ord's housing, offices and support facilities, such as machine shops and motor pools. Operable Unit 2 (OU 2), the Fort Ord Landfills site, consists of landfills covering approximately 150 acres, the immediate surrounding area, and the associated contaminated groundwater. Like many municipal landfills from this era, Fort Ord's landfill (see photo at right) was later found to be leaking hazardous chemicals into the groundwater beneath it. Any landfill can cause contamination if water moves through it, carrying chemicals with it as it flows into the groundwater below the site. The Army stopped accepting waste into the landfill in 1987.



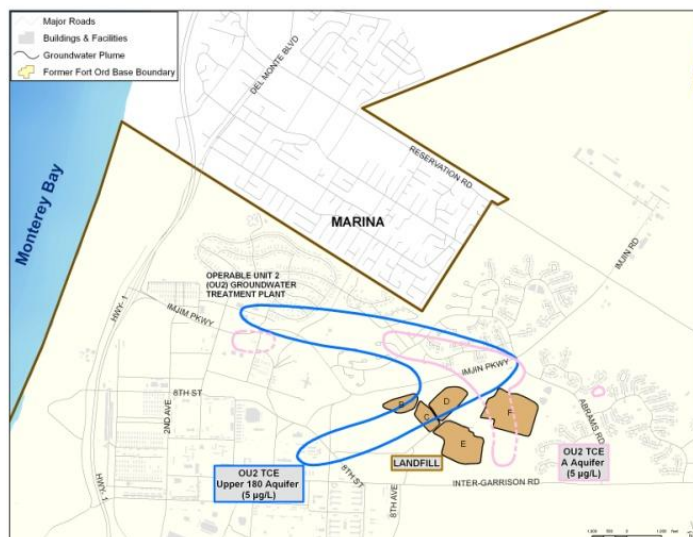
As part of the Superfund cleanup of Fort Ord, the Army, in collaboration with three federal and state regulatory agencies (listed at the end of this fact sheet), implemented a program to clean up the contaminated groundwater and stop further contamination. This program included placing a cover over the landfill that prevents water (such as rain) from moving downward through the waste.

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

Eleven chemicals of concern (COC) 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). **Chemicals of Concern** or **COCs** are elements or compounds present in soil or groundwater at concentrations that could detrimentally affect human health or the environment. Trichloroethene (TCE) is the primary COC because it is detected at the highest concentrations across the greatest extent of the impacted groundwater.

How far does the contamination extend?

Initially only the A-Aquifer, the uppermost aquifer, was thought to be contaminated. But the Army's investigation found contamination in monitoring wells in the Upper 180-Foot Aquifer. The map at the right outlines the OU2 TCE contamination areas: light pink for the A-Aquifer and blue for the Upper 180-foot Aquifer.



What is the Army doing to clean the water?

A treatment plant (see the red roofed building in the photo below) removes contamination from the groundwater. Water is pumped from wells placed in the areas of contamination. Hazardous chemicals are removed using carbon filtration -- which is a good system to remove all 11 COCs. The cleaned water is returned to the ground. This treatment will continue until the impacted groundwater meets cleanup levels which are equivalent to federal and state safe drinking water standards. This process will take some years. The OU 2 groundwater treatment system has been changed to maximize the efficiency of the groundwater cleanup. During the operation of the treatment system, groundwater is sampled every three months to confirm that the treatment system is operating effectively.



The OU2 Groundwater Cleanup System: A Closer Look

Above is a photo of the OU2 treatment plant built in 1995. The blue tanks shown above are filled with activated carbon and are used as part of the OU2 treatment system to clean up contaminated groundwater.

Data indicate that very low concentrations of TCE have been found in three drinking water supply wells on the former Fort Ord. Concentrations of TCE in the supply wells are significantly below the Federal and State Safe Drinking Water Act maximum contaminant levels. Water pumped from the MCWD supply wells on Fort Ord consistently meets the drinking water safety standards established by the U.S. Environmental Protection Agency and the California Department of Public Health. For more information see the fact sheet: "Groundwater Questions and Answers" available at www.FortOrdCleanup.com.

What Happens Next:

The Army will continue to monitor the OU2 groundwater every three months and continue to operate the OU2 Treatment System until the aquifer cleanup goal is met. For further assurance that the groundwater cleanup remains successful, Monterey County has adopted an ordinance prohibiting new water supply wells in the OU2 area until cleanup is completed. The pumping of additional wells could have an effect on the efficiency of the on-going groundwater treatment, so new wells are prohibited.

To Learn More About the Fort Ord Cleanup:

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- 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: Franklin Mark, (916) 255-3584, FMark@dtsc.ca.gov
- California Environmental Protection Agency, Regional Water Quality Control Board: Grant Himebaugh, (805) 542-4636, ghimebaugh@waterboards.ca.gov