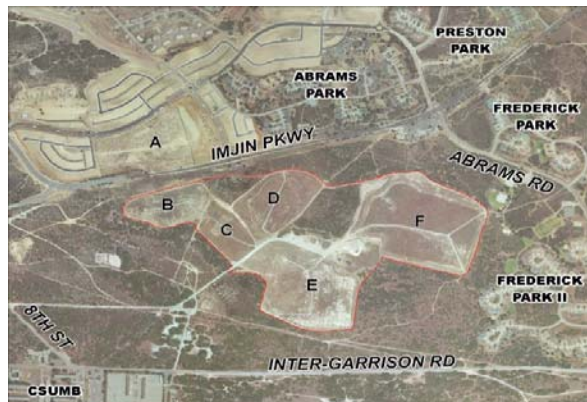


Fort Ord Cleanup Fact Sheet: Operable Unit 2 (OU2): Groundwater Cleanup

History:

The Army operated a landfill during the years Fort Ord served as a training base. The landfill provided waste disposal for Fort Ord's housing, offices and support facilities, such as machine shops and motor pools. Operable Unit 2 or OU 2, the Fort Ord Landfills site, consisted of cells 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 leaching hazardous chemicals into the groundwater beneath it. Any landfill can cause contamination if water moves through it, carrying chemicals from the waste as it flows into the groundwater below the site. The Army stopped accepting waste into the landfill in 1987.



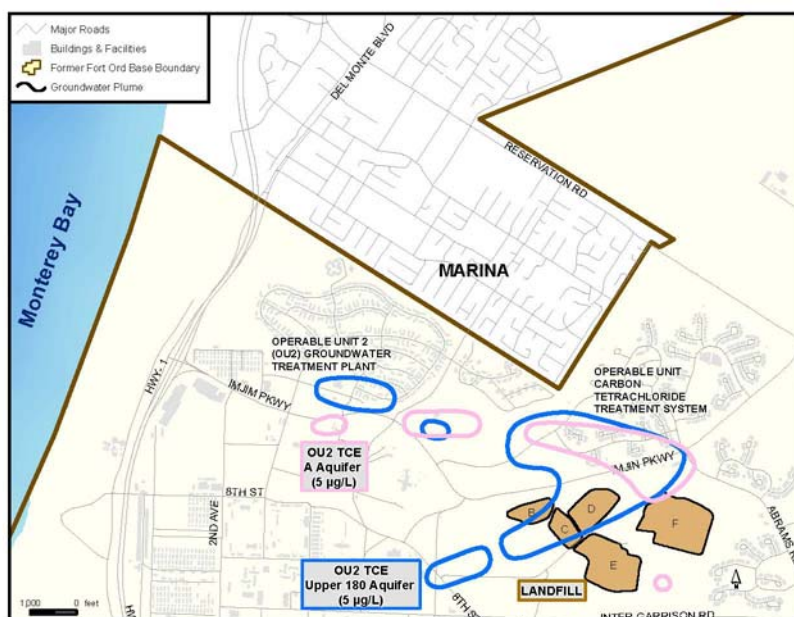
As part of the Superfund cleanup of Fort Ord, the Army, with regulatory oversight by federal and state regulatory agencies (listed at the end of this fact sheet), implemented a program to clean up the contaminated groundwater and stop further contamination. This program included placing a cover over 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 (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 because it is detected at the highest concentrations across the greatest extent of the impacted groundwater.

How far does the groundwater 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 located just below the A-Aquifer. The map at the right outlines current footprint (based on September 2013 sampling results) for the Operable Unit 2 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, and contamination chemicals are removed using carbon filtration -- which is a good system to remove all 11 COCs. The cleaned water is returned to the groundwater.

The groundwater treatment system will continue to operate until the impacted groundwater meets cleanup standards which are less than or equal to federal and state safe drinking water standards. This process will likely take about 30 years, based on current data. The treatment system is tested each week to confirm that it is operating properly. The Operable Unit 2 treatment system is also periodically adjusted to maximize the efficiency of the groundwater cleanup. The treatment plant is planned for relocation adjacent to the landfill. The Army samples groundwater wells quarterly to assess the water quality in the aquifers and uses the data to determine if further changes to the system operations are needed.

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 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 Department of Public Health. For more information see the fact sheet Groundwater Cleanup.



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. This plant will eventually be relocated to an area near the landfill.

What Happens Next:

The Army will continue to monitor the Operable Unit 2 groundwater quarterly and continue to operate the Operable Unit 2 groundwater treatment system until the aquifer cleanup goals are met. For further assurance that the groundwater cleanup remains successful, Monterey County has adopted an ordinance prohibiting new water supply wells in the Operable Unit 2 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 Groundwater Cleanup:

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California Environmental Protection Agency, Regional Water Quality Control Board: Grant Himebaugh,

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