United States Environmental Protection Agency

OLEM/OSRTI
Washington, DC 20460

NATIONAL PRIORITIES LIST (NPL)

Proposed Site

January 2018

ORANGE COUNTY NORTH BASIN | **California**
Orange County

Site Location:

The Orange County North Basin site includes a contaminated groundwater plume and the sources that caused the contamination in Orange County, Southern California. Located in mixed residential, commercial, and industrial areas in the cities of Anaheim, Fullerton, and Placentia, the site includes the Orange County Groundwater Basin, which supplies water to 22 cities serving 2.4 million residents.

Site History:

The site is a comingled groundwater plume of chlorinated solvents and other contaminants covering more than five square miles. Facilities in the area that are known to have used chlorinated solvents include metal manufacturing and plating operations, aerospace manufacturers, and equipment repair and calibration operations.

Site Contamination/Contaminants:

The groundwater plume is contaminated with trichloroethylene (TCE), tetrachloroethylene (PCE), and 1,1 dichloroethylene (1,1-DCE) found at concentrations above the Safe Drinking Water Act Maximum Contaminant Levels (MCLs) and California MCLs. The groundwater is also contaminated with 1,4-dioxane in exceedance of the California Notification Level, and with the chemical perchlorate.

Potential Impacts on Surrounding Community/Environment:

The contamination continues to migrate both vertically and laterally, threatening drinking water supply wells in the principal aquifer including at least 46 active downgradient production wells that serve Orange County. Four drinking water wells in Fullerton and Anaheim were shut down due to this contamination. Recently, one additional well has been taken out of service due to site-related contamination. All drinking water currently served by water purveyors meets federal and state drinking water standards.

Response Activities (to date):

Several known sources are being actively cleaned up by two California EPA state agencies: the Department of Toxic Substances Control (DTSC) and the Santa Ana Regional Water Quality Control Board. Several other possible sources have also been preliminarily assessed by the EPA. Additionally, Orange County Water District is conducting a Remedial Investigation/Feasibility Study under the oversight of EPA Region 9 pursuant to an Administrative Settlement, and operating an extraction well to prevent further vertical and horizontal migration.

Need for NPL Listing:

California EPA referred the site to U.S. EPA to prevent further migration of contaminated groundwater into the area's principal aquifer, the primary drinking water source for Orange County. Other cleanup programs were evaluated, but could not adequately address the plume as a whole due to the number of sources and jurisdictions involved. The EPA received a letter from the state of California on June 28, 2017, in support of placing this site on the NPL.

[The description of the site (release) is based on information available at the time the site was evaluated with the HRS. The description may change as additional information is gathered on the sources and extent of contamination. See 56 FR 5600, February 11, 1991, or subsequent FR notices]

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at https://www.atsdr.cdc.gov/toxfaqs/index.asp or by telephone at 1-800-CDC-INFO or 1-800-232-4636.