North Basin Groundwater Cleanup Update

April 2021

The Orange County Water District (OCWD; the District) manages and protects the Orange County Groundwater Basin that underlies north and central Orange County, from which 19 cities and water agencies draw their water supply. OCWD implements a proactive groundwater and surface water monitoring program to protect the quality of the Orange County Groundwater Basin and ensure the water it provides meets or exceeds state and federal drinking water standards.

Industrial chemicals have impacted areas in the northern part of the groundwater basin near Fullerton, Anaheim and Placentia. OCWD is proactively seeking ways to clean up the pollution in a united effort with state and federal regulatory agencies.

Below is an update on activities in and around the North Basin Site. OCWD will continue to update stakeholders as the need arises.

- With oversight from the United States Environmental Protection Agency (EPA), OCWD is conducting a Remedial Investigation/Feasibility Study (RI/FS) to further characterize areas with elevated contaminant concentrations (the RI), and develop and evaluate alternatives (the FS) for an Interim Remedy to remediate parts of the plume that pose a more imminent threat to local groundwater supplies.

- OCWD has submitted several draft reports that make up the RI Report. EPA is reviewing those documents and has provided comments on some of them. Although preparation of the final RI Report is still in progress, OCWD received EPA approval to finalize an updated contaminant plume map. This map has been posted to OCWD's website.

- OCWD and its consultants have identified practical remedial technologies that could be applied to the North Basin Interim Remedy, combined those technologies into possible remedial alternatives, and evaluated those alternatives using seven criteria, including effectiveness, implementability and cost. Because of the large area and depth of the VOC plume that will be remediated as part of the Interim Remedy (approximately 5 square miles and over 200 feet deep), the only practical means of keeping the contamination from spreading further is to use a network of extraction wells pumping hundreds of gallons per minute, treating the extracted groundwater to remove the contaminants, and then recharging the treated water back into the aquifer or directly using it. OCWD submitted draft technical memoranda documenting its evaluation to EPA and state regulatory agencies for review. These technical memoranda will become key components of the FS.

- Two state agencies, the Santa Ana Regional Water Quality Control Board (RWQCB) and Department of Toxic Substances Control (DTSC), are overseeing the investigation and remediation of sites where releases of contaminants occurred. The RWQCB and DTSC oversee the work by responsible parties to investigate and eliminate sources of contamination, which is key to addressing the problem.

- EPA is starting a Comprehensive RI to investigate parts of the plume that are outside the Interim Remedy. There is a large part of the plume down-gradient of the Interim Remedy Containment Area where very little data are available. The initial work to be conducted by EPA will include installing two to three adjacent monitoring wells (each completed at a different depth) at five or six locations (a total of 14 - 16 wells). These monitoring wells will help define the boundaries and depth of the leading edge of the contaminant plume. The drilling and well construction work has been delayed by COVID-19 but is expected to start this summer.

For additional information, please contact Roy Herndon, chief hydrogeologist at rherndon@ocwd.com or (714) 378-3260.

- EPA North Basin website: http://www.epa.gov/superfund/orange-county-north-basin
- North Basin general information: https://www.ocwd.com/what-we-do/water-quality/groundwater-cleanup/north-basin/