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# North & South Basin Groundwater Cleanup Update

January 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 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 and southern parts of the groundwater basin: North Basin (near Fullerton, Anaheim and Placentia) and South Basin (near Santa Ana, Tustin and Irvine). 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 and South Basin sites. OCWD will continue to update stakeholders as the need arises.

## North Basin

- 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 are part of the RI/FS. EPA is reviewing those documents.
- OCWD and its consultants have identified possible remedial alternatives for the Interim Remedy that will be included in the FS. A technical memorandum is currently being prepared that evaluates those remedial alternatives. Each alternative is evaluated using seven criteria, including effectiveness, ability to be implemented and cost. Based on groundwater flow modeling, a network of extraction wells pumping hundreds of gallons per minute each may be required to keep the contamination from spreading further. OCWD anticipates submitting a draft technical memorandum evaluating the remedial alternatives to EPA and state regulatory agencies by the end of February 2021.
- OCWD received EPA approval to finalize updated contaminant plume maps. These maps will soon be posted to OCWD's website.
- 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 provided a Superfund update at the November 4, 2020 OCWD board meeting. They will present to the RWQCB on February 5, 2021.
- 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 conducted by EPA for the Comprehensive RI will include installing three adjacent monitoring wells (each completed at a different depth) at two locations (a total of six wells). These monitoring wells will help define the boundaries and depth of the contaminant plume. EPA's consultant has issued a drilling subcontract and bids are being solicited. However, COVID-19 may impact the start of field work.

## South Basin

- The South Basin Remedial Investigation/Feasibility Study (RI/FS) Technical Advisory Committee (TAC), comprising staff from RWQCB, and State Water Board Division of Financial Assistance (DFA) and OCWD, meets to review technical documents and discuss progress and schedule.
- Following publication of the Supplemental RI Report, OCWD received comments from stakeholders in August 2020. OCWD's consultant, Engineering Analytics (EA), is preparing responses to those comments.
- The Supplemental RI Report may be accessed on the OCWD website, and hardcopies of the report were delivered to three public repositories:
  - Santa Ana Public Library, 26 Civic Center Plaza, Santa Ana, CA 92701
  - OC Library - Heritage Park, 14361 Yale Avenue, Irvine, CA 92604
  - Tustin Public Library, 345 East Main Street, Tustin, CA 92780
- EA is preparing an FS to identify, develop and evaluate potential remedial alternatives to address groundwater contamination in the South Basin area. The following activities are being performed by EA in support of the FS:
  - Technologies for potential interim remedial measures are being evaluated, and a draft technologies screening technical memo is being prepared. The memo will be submitted to the TAC for review in the first quarter 2021.
  - A numerical groundwater flow model of the South Basin area is being developed for use in evaluating remedial alternatives.
  - The draft FS report is scheduled for submittal to the TAC in the fourth quarter 2021.

## Additional Information

For additional information, please contact Roy Herndon, chief hydrogeologist at [rherndon@ocwd.com](mailto: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/>
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