UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

SENT VIA EMAIL AS PDF

February 8, 2016

Tom Crowley
General Manager
West Valley Water District
855 W. Baseline
Rialto, CA 92377

Dear Mr. Crowley:

Subject: WVWD Startup and Operational Discharges to the Cactus Avenue Flood Control Basins

We have reviewed the January 27, 2016 Technical Memorandum related to the West Valley Water District's (the District) planned discharge of treated water from the District's Groundwater Wellhead Treatment System Project into Cactus Avenue Flood Control Basins #1 and #2. The Cactus Basins are operated by the San Bernardino County Flood Control District.

The Memorandum states that discharges are planned during initial plant startup and potentially, after startup. The estimated discharge volume during startup is 336 acre-feet, assumed to occur over a period of 40 days. Subsequent discharges, after startup, are estimated at up to 128 acre feet per year. The discharged water is expected to recharge the Cactus Basins and infiltrate into the underlying groundwater. After startup, the treated groundwater will be used as drinking water and discharges to the Cactus Basins are expected to be infrequent.

Given the relatively small volumes of water and the limited duration of the planned discharges, we do not expect the discharges to have a significant effect on the distribution or movement of contaminated groundwater in the Rialto-Colton groundwater basin. Cactus Basins #1 and #2 are located near the western edge of the groundwater plumes associated with the Rockets, Fireworks, and Flares Superfund Site (formerly known as the B.F. Goodrich Superfund Site).

EPA previously reached this same conclusion about discharges that occurred during earlier testing of the project. The earlier discharges were similar in magnitude, estimated at 270 acre-feet, to the currently proposed discharges.

The shallow groundwater beneath Cactus Basins #1 and #2 is not known to be contaminated. Near the Cactus Basins, significant groundwater contamination (i.e., contaminant concentrations exceeding Maximum Contaminant Levels) first appears deeper in the aquifer (e.g., at more than

100 feet below the water table at nearby groundwater monitoring well 1S/5W-3A). We expect that the planned discharge will have a negligible effect, if any, on this deeper groundwater.

Please call or email at 415-972-3181 or praskins.wayne@epa.gov with any questions.

Sincerely,

Wayne Praskins
Project Manager

cc: Kurt Berchtold, Santa Ana Regional Water Quality Control Board

EXHIBIT B
Water Spreading Agreement
Cactus Basin No. 2
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ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

February 8, 2016

Mr. Thomas J. Crowley, PE
General Manager
West Valley Water District
855 West Base Line Road
P.O. Box 920
Rialto, CA 92377
(tcrowley@wvwd.org)

COMMENTS ON WEST VALLEY WATER DISTRICT'S TECHNICAL MEMORANDUM REGARDING THE PROPOSED LONG-TERM PERMIT FOR DISCHARGE OF TREATED GROUNDWATER INTO THE SAN BERNARDINO FLOOD CONTROL DISTRICT'S CACTUS BASINS #1 AND #2

Dear Mr. Crowley:

We have reviewed the above referenced Technical Memorandum (TM), dated January 27, 2016, which was prepared by the West Valley Water District (WVWD), and the "Flow and Solute Transport Model Calibration of the Rialto-Colton Basin Groundwater Model" (Model Report), dated December 1, 2015, which was prepared by your consultant, Geoscience. The TM is an update to WVWD's October 2012 TM, and provides further technical analysis in response to the concern by the San Bernardino County Flood Control District (SBCFCD) that WVWD's proposed long-term use of the SBCFCD's Cactus Basins #1 and #2 for the discharge of treated groundwater may adversely affect the movement of a perchlorate and trichloroethylene contaminant plume that is present in the groundwater that underlies the basins. WVWD states that Geoscience's Model Report is a consolidation and comparison of various model runs of different groundwater models that have been developed over the past decade, and in collaboration among the San Bernardino Valley Municipal Water District, WVWD, the Goodrich Corporation, the cities of Rialto and Colton, USEPA, CH2MHill consultants and the U.S. Geological Survey.

Based on the modeling results, the data from previous discharges to Cactus Basins #1, #2, and field measurements of groundwater elevation, WVWD and Geoscience conclude that:

1. "There is no significant change in the size of the geographic footprint of the perchlorate plumes with or without recharge at the Cactus Basins, but concentrations are decreased from dilution;"

2. "Water levels increased up to 2-ft in the vicinity of the recharge ponds as a result of recharge versus no recharge. Water levels due to recharge were imperceptible elsewhere in the Basin;"

3. "The model predictive results show no anticipated significant groundwater contamination impacts from the proposed Project, suggesting that no additional mitigation measures are needed beyond those that have been previously planned and are in place."

We have evaluated the groundwater treatment system design, and the proposal for monthly and quarterly discharges of the treated groundwater into Cactus Basins #1 and #2 at a rate of 4 cubic feet per second, totaling 128 acre-feet per year. We have reviewed the data and calculations in the attachments to WVWD's Technical Memorandum. WVWD states that the two downgradient municipal supply wells (Rialto #6 and WVWD #11) that are being pumped (to generate water for the treatment and subsequent discharge to Cactus Basin #2) will capture the majority of any localized recharge that may result from percolation of the clean, treated water into Cactus Basins #1 and #2.

Monitoring data (USGS Cluster Well 1S/5W-3A) indicate that the shallow groundwater underlying the Cactus Basins is not impacted by the perchlorate and trichloroethylene plume, and that the plume is first present at a depth of about 100 feet below the groundwater table. Based on the percolation data and infiltration calculations and the depth of the plume below the groundwater table, we do not believe that the limited volume and the anticipated intermittent occurrence of the discharge to the two basins will adversely impact the movement of the perchlorate plume.

If you have any questions, please call Ann Sturdivant at (951) 782-4904, or send email to ann.sturdivant@waterboards.ca.gov, or you may contact me at (951) 782-3286 or by e-mail at kurt.berchtold@waterboards.ca.gov.

Sincerely,

Kurt V. Berchtold
Executive Officer

cc: Wayne Praskins, U.S. EPA Region IX (praskins.wayne@epa.gov)

WVWD_Cactus_Basins_02-04-2016

EXHIBIT B
Water Spreading Agreement
Cactus Basin No. 2
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