

**MEETING OF THE GROUNDWATER QUALITY COMMITTEE
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BLVD., LAKEWOOD, CA. 90712
10:00 A.M., TUESDAY, JULY 9, 2019**

AGENDA

Each item on the agenda, no matter how described, shall be deemed to include any appropriate motion, whether to adopt a minute motion, resolution, payment of any bill, approval of any matter or action, or any other action. Items listed as "For information" or "For discussion" may also be the subject of an "action" taken by the Board or a Committee at the same meeting.

- 1. DETERMINATION OF A QUORUM**
- 2. PUBLIC COMMENT**
Pursuant to Government Code Section 54954.3
- 3. ENVIRONMENTAL SITES REVIEW**
Staff Recommendation: The Groundwater Quality Committee receive and file report.
- 4. SAFE DRINKING WATER PROGRAM OUTREACH REPORT**
Staff Recommendation: The Groundwater Quality Committee receive and file report.
- 5. SAFE DRINKING WATER PROGRAM - DISADVANTAGED COMMUNITIES OUTREACH PILOT PROGRAM UPDATE**
Staff Recommendation: For discussion and possible action.
- 6. DIRECTORS' REPORTS, INQUIRIES AND FOLLOW UP OF DIRECTIONS TO STAFF**
- 7. ADJOURNMENT**
The Committee will adjourn to the next currently scheduled meeting on August 13, 2019, at 10:00 a.m.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact Brandon Mims, Deputy Secretary at (562) 921-5521 for assistance to enable the District to make reasonable accommodations.

All public records relating to an agenda item on this agenda are available for public inspection at the time the record is distributed to all, or a majority of all, members of the Board. Such records shall be available at the District office located at 4040 Paramount Boulevard, Lakewood, California 90712.

Agendas are available at the District's website, www.wrd.org.

EXHAUSTION OF ADMINISTRATIVE REMEDIES – If you challenge a District action in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Deputy Secretary at, or prior to, the public hearing. Any written correspondence delivered to the District office before the District's final action on a matter will become a part of the administrative record.



MEMORANDUM
ITEM NO. 3

DATE: JULY 9, 2019

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: ENVIRONMENTAL SITES REVIEW

SUMMARY

WRD continues to take an active role in groundwater quality protection, cleanup, and investigation. As part of its Groundwater Contamination Prevention Program, WRD established the Central and West Coast Basin Groundwater Contamination Forum, a data-sharing and discussion forum with key stakeholders that include various cities, water purveyors, the United States Environmental Protection Agency (EPA), California Department of Toxic Substances Control (DTSC), Los Angeles Regional Water Quality Control Board (RWQCB), State Water Resources Control Board Division of Drinking Water (DDW), United States Geological Survey (USGS), and California Department of Water Resources (DWR).

In 2005, the stakeholders drafted and signed a Memorandum of Understanding ("MOU") agreeing to meet regularly and share data on major groundwater contaminated sites within the Central Basin and West Coast Basin. WRD acts as the meeting coordinator and data repository/distributor, helping stakeholders to characterize the extent of contamination to identify pathways for contaminants in shallow aquifers to reach deeper drinking water aquifers and develop optimal methods for remediating contaminated groundwater. The overall purpose of the Forum is to expedite the cleanup of these major contaminated sites in the basins.

With the cooperation and support of all stakeholders in the Groundwater Contamination Forum, WRD developed a list of high-priority groundwater contaminated sites ("environmental sites") located within the District. This list is a living document, subject to cleanup and "closure" of sites, as well as discovery of new sites warranting further attention. Currently, the list includes 46 sites located throughout the Central Basin and West Coast Basin. The list was developed based on the following criteria:

- Site location and hydrogeology
- Distance to nearest drinking water well
- Depth to shallowest water-supply aquifer beneath site
- Concentration of detected contaminants

- Fate and transport of detected contaminants
- Presence of contamination in nearby drinking water wells
- Status of site characterization with respect to groundwater contamination
- Status of site remediation with respect to groundwater contamination
- Stage of regulatory agency involvement

WRD works in close consultation with the lead regulatory agencies for each of these sites to provide data and technical support to facilitate site characterization and expedite cleanup. An update is provided below for Pemaco Superfund Site (City of Maywood) and Fairchild Controls Facility (City of Manhattan Beach).

PEMACO SUPERFUND SITE (MAYWOOD, CENTRAL BASIN)

The 1.4-acre facility formerly operated as a chemical blending plant from the late 1940's to 1991. The facility infrastructure has been removed including chemical storage drums, containers, aboveground storage tanks (ASTs), and underground storage tanks (USTs). The southern portion of the site is currently being remediated and the northern portion was redeveloped as the Maywood Riverfront Park, which opened in May 2008.

Soil and groundwater are impacted with various chlorinated solvents including primarily tetrachloroethene (PCE), trichloroethene (TCE), trichloroethane (TCA), dichloroethane (DCA), and vinyl chloride (VC). In January 1999, the site was added to the National Priorities List (NPL) with environmental related work originally overseen and funded by the Environmental Protection Agency (EPA). In August 2018, EPA transferred treatment system operations and associated regulatory oversight to the Department of Toxic Substances Control (DTSC).

Groundwater impacts are present to a depth of approximately 145 feet below ground surface (ft bgs). Shallow groundwater near the site is captured by an existing groundwater treatment system (pump and treat [P&T]) and the deeper water bearing zones generally flow south towards the nearest down-gradient production well owned by Maywood Mutual Water Company No. 3 (well DIST #4) (0.3 miles south of the Site). Site constituents have not been detected in well DIST #4.

The shallow soils and perched water are currently being treated via dual phase extraction (DPE). A P&T system is being used to treat impacted groundwater within upper two water bearing zones of the Exposition Aquifer. The shallow soils were also remediated using electrical resistive heating (ERH).

In April 2017, WRD staff reported to the committee the presence of a separate groundwater plume with similar constituents migrating onto the site from the north (also containing 1,4-Dioxane). EPA initiated an investigation into the source of the upgradient groundwater plume and has been working in close coordination with the WRD, DTSC, and RWQCB. In 2018, the results of the initial investigation were reported for several sites and additional work is planned for 2019. In addition, RWQCB staff recently issued an order to a neighboring facility (Joe's Plastics) to submit a work plan for further assessment of subsurface contamination (due May 2019). WRD staff will continue to

monitor the progress of the investigation work and request regular updates from the EPA, DTSC, and RWQCB.

FAIRCHILD CONTROLS FACILITY (MANHATTAN BEACH, WEST COAST BASIN)

The 9-acre facility formerly operated as a parts manufacturer for the aerospace industry from 1955 to 1992. There was an on-site plating shop that utilized a chrome acid storage tank / clarifier and was a source of hexavalent chromium (Cr⁺⁶). In addition, solvents were used for cleaning / degreasing operations resulting in the release of chlorinated volatile organic compounds (VOCs) (primarily PCE and TCE). Until the 1980s, waste solvents were placed in an underground "waste oil sump," which was eventually found to be leaking and was subsequently removed in 1988. The facility was demolished (including all subsurface infrastructure) in 1993/1994. In 1999, the site was redeveloped into the current Manhattan Gateway Shopping Center. The environmental related work is being overseen by the RWQCB.

Groundwater impacts are present in three water bearing zones including a Shallow Zone (65 to 100 ft bgs), Deep Zone (100 to 120 ft bgs), and Lower Gage (130 to 150 ft bgs). The nearest downgradient active public water supply wells are owned and operated by Golden State Water Company (wells Doty #1, Doty #2, and Compton-Doty #1). Site constituents have not been detected in the production wells with the closest one located east of the Site approximately 2.4-miles.

Multiple treatment systems have operated over the years to address soil and groundwater contamination including soil excavations (1998), soil vapor extraction (1998 to 2000 and 2004 to 2011), groundwater P&T (1999 to 2000), in-situ chemical treatment (2005, 2008, 2014, 2015, 2016), and a groundwater recirculation system that commenced operations in February 2017.

FISCAL IMPACT

None

STAFF RECOMMENDATION

The Groundwater Quality Committee receive and file report.

Environmental Sites Review - Tables
Pemaco Superfund Site (Maywood, Central Basin)

Key Indicator Compounds in Groundwater*						
Chemical	MCL	Perched (25' – 40')	Exposition Aquifer			
			Zone A (65' – 75')	Zone B (80' – 90')	Zone C (100' – 110')	Zone D (125' – 145')
PCE	5	ND	ND	ND	ND	ND
TCE	5	1.1 in SV-05	650 in MW-44-75	830 in MW-38-90	680 in MW-23-110	660 in MW-25-130
c1,2-DCE	6	8.4 in SV-05	83 in MW-21-80	600 in MW-44-90	94 in MW-41-110	11 in MW-25-130
VC	0.5	0.38J SV-05	ND	190 in MW-20-85	2.5 in MW-23-110	ND
1,4-Dioxane	1.0**	16 in PD-05	55 in MW-37-80	92 in MW-36-90	4.3 in MW-23-110	27 in MW-25-130

*Maximum detection with results in micrograms per liter (µg/L) / ** indicates Notification Level / ND = Not Detected
 Source: Draft groundwater monitoring figures provided by DTSC. Data for February 2019

Fairchild Controls Facility (Manhattan Beach, West Coast Basin)

Key Indicator Compounds in Groundwater*				
Chemical	MCL	Shallow Zone (65' – 100')	Deep Zone (100' – 120')	Lower Gage (130' – 150')
PCE	5	2,900 in OB-37S	7,300 in OB-21D	8,000 in OB-31LG
TCE	5	2,700 in OB-32S	31,000 in OB-21D	13,000 in OB-21D
c1,2-DCE	6	1,300 in OB-28S	1,100 in GW-13	2,700 in OB-30LG
Cr ⁺⁶	N/A	4,000 in OB-37S	7,500 OB-36E	10,000 in OB-32LG

*Maximum detection with results in µg/L. N/A indicated maximum contaminant level not applicable as it was removed by the SWRCB.
 Source: 1st Quarter 2019 Groundwater Monitoring and Remedial Progress Report (BEC, April 15, 2019)

Multiple treatment systems have operated over the years to address soil and groundwater contamination from the Site. A summary is provided as follows:

Type	Dates	Results
Excavation #1	1998	1,069 tons of chromium impacted soil removed by Building 1. RWQCB issued NFA.
SVE #1	1998 to 2000	21,800 pounds removed from vadose zone (primarily PCE/TCE). RWQCB issued NFA.
GW P&T	1999 to 2000	4.6 million gallons of impacted groundwater treated (primarily Cr ⁺⁶ and PCE/TCE).
SVE #2	2004 to 2011	36,345 pounds removed from vadose zone (primarily PCE/TCE).
In-Situ GW #1	2005	CPS pilot testing performed on-site to evaluate treatment options for Cr ⁺⁶ .
In-Situ GW #2	2008	CPS/EVO treatment (on-site and off-site) to address Cr ⁺⁶ and other VOCs.
SVE #3	2010 to 2011	Pilot testing off-site and removed a limited mass of VOCs.
Treatability	2011 to 2012	Studies performed to evaluate applicability of reductive dechlorination for GW.
In-Situ GW #3a	2014 & 2015	Pilot test reductive dechlorination using Cheese Whey (buffered with Calcium Carbonate).
In-Situ GW #3b	2016	Pilot groundwater recirculation wells to help distribute amendments in GW.
Recirculation	2017+	Additional amendments added to groundwater and recirculation system starts Feb. 2017

NFA = No Further Action / SVE = Soil Vapor Extraction / GW P&T = Groundwater Pump and Treat / CPS = Calcium Polysulfide
 EVO = Emulsified Vegetable Oil

Common Acronyms:

PCE = Tetrachloroethene	MTBE = Methyl Tertiary Butyl Ether	ND = Not Detected
TCE = Trichloroethene	TBA = Tertiary Butyl Alcohol	FT = Feet
DCE = Dichloroethene	LNAPL = Light Non-Aqueous Phase Liquid	MCL = Maximum Contaminant Level
DCA = Dichloroethane	TPH = Total Petroleum Hydrocarbons	Ft BGS = Feet Below Ground Surface
TCA = Trichloroethane	µg/L = Micrograms per Liter	NL = Notification Level
Cr ⁺⁶ = Hexavalent Chromium	Estimated values labeled "J"	



MEMORANDUM

ITEM NO. 4

DATE: JULY 9, 2019
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: SAFE DRINKING WATER PROGRAM OUTREACH REPORT

SUMMARY

The District administers an ongoing Safe Drinking Water Outreach Program aimed at providing cities, pumpers, and local legislators information about WRD's grant and loan assistance programs for wellhead treatment to protect and improve water quality.

District staff participate in outreach activities and education campaigns to inform the public and elected representatives about the efforts WRD takes to ensure safe drinking water and to provide necessary resources to interested parties.

FISCAL IMPACT

None

STAFF RECOMMENDATION

The Groundwater Quality Committee receive and file report.