

**MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CA 90712
8:30 A.M., WEDNESDAY, JANUARY 10, 2018**

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" MAY ALSO BE THE SUBJECT OF ANY "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. SAFE DRINKING WATER PROGRAM - DISADVANTAGED COMMUNITIES
OUTREACH PILOT PROGRAM UPDATE**
Staff Recommendation: The Groundwater Quality Committee receive and file the report.
- 4. SAFE DRINKING WATER OUTREACH UPDATE**
Staff Recommendation: The Groundwater Quality Committee receive and file the report.
- 5. ENVIRONMENTAL SITES REVIEW**
Staff Recommendation: The Groundwater Quality Committee receive and file the report.
- 6. DIRECTORS REPORTS, INQUIRIES AND FOLLOW UP OF DIRECTIONS TO
STAFF**
- 7. ADJOURNMENT**
The Committee will adjourn to the next regular meeting currently scheduled for February 14, 2018 at 8:30 A.M.

Agenda posted by Sherri Brown, Senior Administrative Specialist on January 5, 2018. In compliance with ADA requirements, this document can be made available in alternative formats upon request.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact the Manager of Internal Services 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 and minutes 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 Manager of Internal Services 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: JANUARY 10, 2018

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

**SUBJECT: SAFE DRINKING WATER PROGRAM - DISADVANTAGED COMMUNITIES
OUTREACH PILOT PROGRAM UPDATE**

SUMMARY

The District administers the Safe Drinking Water Program (SDWP) which provides grant or loan assistance to basin pumpers for wellhead treatment to remove contaminants and improve water quality. The Grant Program provides treatment for removing groundwater contaminants from man-made sources (e.g. Volatile Organic Compounds); whereas the Loan Program provides 10-year, zero-interest loans for providing water treatment to remove unacceptable levels of contaminants from natural sources (e.g. iron, manganese, and arsenic).

In 2016, the District approved three wellhead treatment projects as part of the Safe Drinking Water Program: California American Water Arlington Well, Huntington Park Well 15, and Lynwood Well 11. The wellhead treatment system at all three wells will consist of a complete granular activated filtration system built within the boundaries of the existing well sites owned and operated by the water systems. In addition, as part of Assembly Bill No. 240, the District was designated to manage and implement a water quality improvement project in the City of Maywood. The appropriated funds were assigned to the Maywood Avenue Wellhead treatment project for iron and manganese removal.

Safe Drinking Water Pilot Program

As an extension of the District's Safe Drinking Water Program, the District approved the creation of the Safe Drinking Water Disadvantage Communities (DAC) Pilot Program. The goal of this program is to assist water systems located in disadvantaged communities within the District's service area with state and federal funding to address the issues related to their drinking water wells. The focus of the program is to provide technical assistance and extensive outreach to help the systems secure funding that is set aside specifically for disadvantaged communities. Currently there are seven water systems participating in the program and receiving assistance: City of Bell Gardens, City of Compton, City of Huntington Park and City of Lynwood, Maywood Mutual Water Company No. 2, Maywood Mutual Water Company No. 3 and Sativa LA County Water District.

Safe Drinking Water Program Outreach Efforts

Outreach efforts continue as staff is preparing follow-up outreach to cities, particularly disadvantaged communities, to schedule presentations for upcoming city council meetings to further explain WRD's programs.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

The Groundwater Quality Committee receive and file the report.



MEMORANDUM

ITEM NO. 4

DATE: JANUARY 10, 2018

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: SAFE DRINKING WATER OUTREACH UPDATE

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 the report.



MEMORANDUM

ITEM NO. 5

DATE: JANUARY 10, 2018

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 49 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 the Western Chemical Facility (City of La Mirada in the Central Basin) and Phillips 66 (former Unocal Tosco Refinery) (City of Carson in the West Coast Basin).

WESTERN CHEMICAL FACILITY (CITY OF LA MIRADA)

The 0.33 acre site formerly handled various solvents for reclamation, recycling, and/or manufacturing purposes by both Tect Incorporated (Tect) and Western Chemical (the Site). Tect operations were conducted from approximately 1963 to the early 1970s. Western Chemical operations were conducted from 1972 to 1979. An environmental release occurred at the former wastewater discharge pond located in the southeastern portion of the Site. The key indicator compounds in groundwater include tetrachloroethene (PCE), trichloroethene (TCE), vinyl chloride (VC), 1,1-dichloroethene (1,1-DCE), and 1,1,1-trichloroethene (1,1,1-TCA). Regulatory oversight is provided by the RWQCB.

Groundwater generally flows towards the south-southeast beneath the Site. The nearest active potable water supply well is located within approximately 400 feet (Well #410-W1) and is owned by Suburban Water Systems. Site related constituents have not been detected in the water supply well through August 2017. The most recent readily available groundwater analytical results for the Site are summarized as follows:

Key Indicator Compounds in Groundwater (Results shown for Third Quarter 2017)				
Chemical	MCL	Shallow Groundwater (Maximum On-Site)	Shallow Groundwater (Maximum Off-Site)	Vertical Investigation Report (February 2017)
PCE	5	49,000 at MW-2	15,000 at FTMW5	<50 at GP-50 (32')
TCE	5	260,000 at MW2	70,000 at FTMW5	7,700 at GP-50 (32')
VC	0.5	1,200 at MW1	4,500 at MW15	260 at GP-52 (32')
1,1,1-TCA	200	260,000 at MW3	8,200 at FTMW5	<50 at GP-50 (32')
1,1-DCE	6	19,000 at MW3	8,900 at FTMW5	1,300 at GP-50 (32')
1,4-Dioxane	1 (NL)	29,000 at MW1	20,000 at MW13	5,100 at GP-50 (32')

Maximum detected results shown in micrograms per liter (µg/L). NL = Notification Level
Source: Third Quarter 2017 Report (Geosyntec, October 13, 2017)

The remedial efforts include (1) a sub-slab depressurizing system to prevent vapors from penetrating the on-site building, (2) an idle dual phase extraction system used to hydraulically contain the groundwater plume, and (3) a treatability study that is currently being scaled up to pilot test an in-situ bioremediation groundwater remedy using a controlled release of food-grade carbon, nutrients, and microscale zero valent iron (EHC®) amended with a natural microbial bacteria consortium consisting of *Dehalococcoides* and *Dehalobactor* (KB-1®). The pilot testing results are anticipated in 2018.

PHILLIPS 66 (FORMER UNOCAL TOSCO REFINERY (CITY OF CARSON))

The 245-acre Carson Plant (the Site) refines and processes crude oil into unfinished intermediate petroleum products that is subsequently piped west for further processing and storage at their Wilmington Plant. The Site includes pipelines, process areas and equipment, material / waste storage areas, treatment / disposal units, and multiple aboveground storage tanks (AST's). A large petroleum hydrocarbon groundwater plume is present beneath a significant portion of the Site. The refinery also released a large amount of light non-aqueous phase liquid (LNAPL). The 156 wells in the current well network monitor groundwater in multiple aquifers including the Water Table (128 wells), Gage Aquifer (27 wells), and Silverado Aquifer (1 well). Regulatory oversight is provided by the RWQCB.

Groundwater generally flows towards the west beneath the Site. The nearest active potable water supply well is located cross-gradient within approximately 1.3 miles (Well #279-01) and is owned by California Water Service Company. Site related constituents have not been detected in the water supply well through September 2017. The most recent readily available groundwater analytical results for the Site are summarized as follows:

Key Indicator Compounds in Groundwater (Results shown for April 2017)				
Chemical	MCL	Water Table	Gage	Silverado
Benzene	1	27,000 at MW-22	2,100 at WD-10M	ND < 0.5
DIPE	None	970 at MW-22	1,700 at WD-10U	3.4 at WW-5
MTBE	13	3,600 at MW-2	73 at WD-4L	ND < 1.0
TBA	12 (NL)	10,000 at MW-22	1,100 at WD-7M	26 at WW-5
TPHg	None	18,000 at MW-18	7,900 at WD-10M	ND < 100

Maximum detected results shown in µg/L. ND = Not Detected

Source: Spring 2017 Semiannual Groundwater Monitoring Report (Trihydro Corporation, July 27, 2017)

Unocal remedial efforts currently include (1) source elimination program to monitor active pipelines and ASTs, (2) groundwater extraction system along the western down-gradient property boundary to hydraulically contain dissolved-phase constituents in groundwater and LNAPL, and (3) limited vadose zone remediation in the central portion of the refinery using soil vapor extraction (SVE). To date, the refinery reportedly recovered approximately 46,447 gallons of LNAPL and 2,651,530 gallons of water (or 342 acre-feet) (1986 through the second quarter of 2017).

The RWQCB also recently requested a significant amount of work in an agency letter dated December 8, 2017. The additional work generally includes (1) increasing recovery efforts site-wide including submerged LNAPL, (2) remediating dissolved-phase impacts near MW-2 / MW-22, and (3) delineating impacts in the Gage Aquifer. Work plans are required by March 30, 2018.

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

The Groundwater Quality Committee receive and file the report.