



**SPECIAL MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CA 90712
9:30 A.M., FRIDAY, MARCH 16, 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. SUPPORT LETTER REQUEST FROM WEST BASIN MUNICIPAL WATER DISTRICT FOR THEIR GRANT APPLICATION FOR THE BREWER DESALTER**
Staff Recommendation: For discussion and possible action.
- 4. SAFE DRINKING WATER PROGRAM - DISADVANTAGED COMMUNITIES OUTREACH PILOT PROGRAM UPDATE**
Staff Recommendation: The Groundwater Quality Committee receive and file the report.
- 5. SAFE DRINKING WATER OUTREACH UPDATE**
Staff Recommendation: The Groundwater Quality Committee receive and file the report.
- 6. ENVIRONMENTAL SITES REVIEW**
Staff Recommendation: The Groundwater Quality Committee receive and file the report.
- 7. DIRECTORS REPORTS, INQUIRIES AND FOLLOW UP OF DIRECTIONS TO STAFF**



8. **ADJOURNMENT**

The Committee will adjourn to the next regular meeting currently scheduled for April 11, 2018 at 9:30 A.M.

Agenda posted by Sherri Brown, Senior Administrative Specialist on March 15, 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: MARCH 16, 2018

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: SUPPORT LETTER REQUEST FROM WEST BASIN MUNICIPAL WATER DISTRICT FOR THEIR GRANT APPLICATION FOR THE BREWER DESALTER

SUMMARY

The West Basin Municipal Water District (WBMWD) has requested a letter of support for their C. Marvin Brewer Desalter Improvements Project (Project) for the Department of Water Resources (DWR) Proposition 1 Desalination grant funding. Specifically, they requested that the letter of support be on behalf of the West Coast Basin Watermaster. WRD is the Administrative Body of the West Coast Basin Watermaster.

The Project would update the existing equipment and expand the facility's capacity to produce potable water and remediate the high chloride concentrations within the Silverado Aquifer in this area of the West Coast Basin. According to WBMWD, the purpose of this Project is to reduce the community's reliance on imported water and incorporate more groundwater pumping to act as a buffer during times of drought.

With upgrades to the existing well and the construction of a new well, there will be a large increase of water supply (up to 1,750 AFY) from the current capacity of the one existing well, to bring the total pumping capability to 2,000 AFY, within the allowable legal extraction limit based on their exemption to the West Basin Judgment for this Project.

The well had an original pumping production of 1,250 to 1,500 gallons per minute (gpm); however, over the last several years, the well has produced significantly less yield. The current well production is about 500 gpm (800 acre-feet per year). This reduced production and the age of the equipment led to WBMWD staff conducting a condition assessment of the Desalter facility in July 2015. The condition assessment resulted in a prioritization of replacement and rehabilitation projects, including a well capacity and well screen condition assessment. The well assessment, including a video survey and water sampling, was conducted in early 2016 and results determined that a multi-phase mechanical and chemical rehabilitation of the well should be implemented.

On a previous grant submittal request, the DWR informed WBMWD on their evaluation sheet that WRD, as the Watermaster, has not been involved in the Project and that DWR wants WBMWD to “confirm support of the project by the Watermaster of the adjudicated West Coast Basin.” Thus the request from WBMWD for a support letter from WRD as the Administrative Body of Watermaster. WBMWD has requested the support letter as soon as possible, as their application deadline is March 30, 2018

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For discussion and possible action.



MEMORANDUM

ITEM NO. 4

DATE: MARCH 16, 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 eight 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, Sativa LA County Water District and Tract 180 Mutual 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. 5

DATE: MARCH 16, 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. 6

DATE: MARCH 16, 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 Jefferson Middle School and Hard Chrome Product sites (City of Los Angeles in the Central Basin).

JEFFERSON MIDDLE SCHOOL (CITY OF LOS ANGELES)

Jefferson Middle School (aka, Los Angeles Academy Middle School [LAAMS]) encompasses an area of approximately 15 acres. A variety of businesses have operated at the site including clay pipe manufacturer, bulk fuel distribution facility, gasoline service station, machine shops, production of war-related products, and a furniture manufacturer. In 1989, the property was acquired through eminent domain by Los Angeles Unified School District. Structures were demolished and a school was built from 1994 to 1998.

Subsurface investigations have been conducted by numerous consultants since 1987. This led to the establishment of three distinct operable units for the Site:

Operable Unit	Description
OU-1	Onsite shallow vadose zone between groundwater surface and 40 ft bgs.
OU-2	Onsite deep vadose zone between 40 and 145 ft bgs.
OU-3	Offsite vadose zone between 56th and 55th Streets, Avalon Boulevard, and a northern extension of Paloma Avenue and Groundwater beneath and extending one block to the north of LAAMS.

The OU-1 remedial investigation (RI) identified two VOCs, trichloroethene (TCE) and tetrachloroethene (PCE), as chemicals of potential concern (COPCs). The OU-2 RI identified 19 VOCs as COPCs including TCE and PCE. Interim cleanup goals were developed for the 19 COPCs and approved by the DTSC in July 2004. OU-3 groundwater is impacted by total chromium, hexavalent chromium (Cr⁺⁶), TCE, and PCE. OU-1 and OU-2 RI and the baseline health assessment reports concluded there were no significant health risks to students or staff at the school, or to nearby residents due to contaminants underlying the Site. The DTSC discontinued soil gas monitoring based on consistently low soil gas results confirmed in 2017. The bulk of the work has now shifted to OU-3.

The water table aquifer is relatively deep at approximately 150 feet and generally flows north-northwest towards a nearby deep nested monitoring well installed by WRD (Los Angles 1). TCE has been detected in this monitoring well above regulatory standards to a depth of approximately 660 feet. The deeper regional groundwater flows southeast towards an active water supply well located within approximately 0.7 miles (Golden State Water Company, Well G004). The water well contains elevated levels of chlorinated solvents and is currently being treated using granular activated carbon (GAC). The most recent readily available groundwater analytical results are summarized as follows:

Key Indicator Compounds in Groundwater (Results reported for Third Quarter 2017)		
Chemical	MCL	Maximum Concentration
TCE	5	360 (MW-30)

Maximum detected results shown in micrograms per liter (µg/L) / ND = Not Detected / NL = Notification Level / J = Estimated Concentration
 Source: Monitoring and Reporting Program No. CI-10311, July – September 2017 (3Q 2017) (Parsons, 2017).

In 2014, an enhanced bioremediation and in-situ chemical reduction pilot study was performed to address impacted groundwater (primarily TCE). In 2016, the pilot testing results and a recommendation for full implementation were documented in a Feasibility Study (FS) / Remedial Action Plan (RAP). The groundwater remedy design documents were finalized in a technical memorandum dated March 16, 2017. DTSC approved the design documents in a letter dated June 16, 2017. Groundwater remediation commenced in July 2017. The initial injection volumes are summarized as follows:

Description	Quantity	Units
Injections Wells	15	each
Volume of injected food grade emulsified vegetable oil (EVO)	391,467	gallons
Volume of bioaugmentation KB-1	78	liters

Groundwater samples are collected quarterly and progress reported to DTSC.

HARD CHROME PRODUCTS (CITY OF LOS ANGELES)

Hard Chrome Products operated as a metal plating facility from 1940 to 1991. Prior to 1987, wastewater from the plating operations was discharged to an underground three-stage clarifier at the eastern portion of the Site. The clarifier was reportedly abandoned in place (buried underground) in November 1987. Hard Chrome Products also utilized an earthen containment trench (north portion), a drainage sump (northeast portion), and three concrete-lined trenches (northwest portion) at the Site. All on-site structures were razed (1994) and capped with asphalt (1995). The Site is currently a vacant lot. Since 1989, multiple soil and groundwater investigations have been conducted under the oversight of the DTSC.

Groundwater monitoring wells are sampled quarterly and based on the results the main site-related constituents [total chromium and hexavalent chromium (Cr+6)] are comingled with a groundwater plume originating from the neighboring LAAMS (mainly TCE). The water table aquifer is relatively deep at approximately 150 feet and generally flows north-northwest towards a nearby deep nested monitoring well installed by WRD (Los Angeles 1). Hexavalent chromium has been detected in this monitoring well to a depth of approximately 660 feet. The deeper regional groundwater flows southeast towards an active water supply well located within approximately 0.7 miles (Golden State Water Company, Well G004). The well contains elevated levels of chlorinated solvents and is currently being treated using GAC. The most recent readily available groundwater analytical results for the Site are summarized as follows:

Key Indicator Compounds in Groundwater (Results reported for April 2016)		
Chemical	MCL	Maximum Concentration
Total Chromium	50	251,000 (MW-31)
Cr+6	---	248,000 (MW-31)

Maximum detected results shown in micrograms per liter (µg/L) / ND = Not Detected / NL = Notification Level / J = Estimated Concentration
 Source: Technical Memorandum – Proposed Supplemental Groundwater Injection Program (Parsons, 2016).

Shallow soil contamination was excavated in 1997 and 2008. DTSC reviewed remedial options for groundwater and selected a chemical reduction process using Calcium Polysulfide (CPS). CPS has been injected multiple times to address subsurface impacts (soil and groundwater) in 2007, 2009, and 2012. DTSC issued a statement indicating the on-site cleanup has met the remedial objectives in a letter dated June 28, 2013. DTSC

contractors are currently addressing offsite groundwater impacts using CPS. A contract for the fifth phase of additional groundwater treatment was recently approved by the agency in a letter dated January 3, 2018.

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

The Groundwater Quality Committee receive and file the report.