

**MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CA 90712
12:30 P.M., WEDNESDAY, JANUARY 25, 2012**

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**
- 3. MINUTES OF THE MEETING OF NOVEMBER 23, 2011**
Staff Recommendation: Approve as submitted.
- 4. MONTROSE CHEMICAL CORPORATION REPLENISHMENT ASSESSMENT EXEMPTION**
Staff Recommendation: For discussion.
- 5. WORKSHOP ON DRAFT GROUNDWATER REPLENISHMENT REUSE REGULATION**
Staff Recommendation: For information.
- 6. GROUNDWATER CONTAMINATION UPDATE**
Staff Recommendation: For information.
- 7. CONSULTANT SELECTION FOR THE FEASIBILITY STUDY ON GOLDSWORTHY DESALTER EXPANSION**
Staff Recommendation: Award a professional services contract to CH2M HILL to evaluate the feasibility of expanding the Goldsworthy Desalter, including construction of additional extraction wells, and authorize a total expenditure of \$242,000, including contingencies.
- 8. AMENDMENT TO TEST AMERICA ANALYTICAL, INC TITLE 22 MONITORING LABORATORY SERVICES**
Staff Recommendation: For discussion.
- 9. DIRECTORS' REPORTS, INQUIRIES, AND FOLLOW UP OF DIRECTIONS TO STAFF**
- 10. ADJOURNMENT**

Posted by Abigail C. Andom, Deputy Secretary, January 20, 2012.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the Board meeting, please contact Deputy Secretary Abigail Andom 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.

UNAPPROVED
MINUTES

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**MINUTES OF NOVEMBER 23, 2011
MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS OF THE
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

A meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District of Southern California was held on Wednesday, November 23, 2011, 12:58 p.m., at the District Office, 4040 Paramount Boulevard, California. Chairperson Sergio Calderon called the meeting to order and presided thereover. Administrative Specialist Sheryll Moffat recorded the minutes.

1. DETERMINATION OF A QUORUM

Committee: Directors Sergio Calderon and Rob Katherman
Staff: Ted Johnson, Paul Fu, Charlene King, Cathy Chang, and
Phuong Ly
Guests: Ramiro Hernandez, City of South Gate

2. PUBLIC COMMENT

Ramiro Hernandez said that he is attending as an observer at the direction of a new director on their board.

3. MINUTES OF THE SPECIAL MEETING OF SEPTEMBER 28, 2011

The minutes were approved as submitted.

**4. U.S. ENVIRONMENTAL PROTECTION AGENCY'S RISK
ASSESSMENT ON TRICHLOROETHYLENE**

Dr. Cathy Chang stated that the United States Environmental Agency (U.S. EPA) released its final risk assessment for trichloroethylene (TCE). Dr. Chang stated that TCE is a volatile, chlorinated hydrocarbon widely used as a solvent, paint stripper and degreasing agent. She explained that past disposal practices of TCE into nearby waste pits and storage tanks at industrial facilities and military bases resulted in air, soil and aquifer contamination. She noted that cancer is the primary health concern from TCE exposure, and it also damages the central nervous system. She said that the District addresses TCE contaminated sites by: (1) the Groundwater Contamination Forum, (2) the Safe Drinking Water Program and (3) the Regional Groundwater Monitoring Program.

Director Katherman said that early notification of our pumpers is most important and suggested that staff send out a brief announcement via email or twitter to the pumpers and also have our IT Department provide the link to the risk assessment report on the District's website.

5. GROUNDWATER CONTAMINATION UPDATE

Water Quality Specialist Phuong Ly presented an update on the Boeing C-6 Facility, which is located in the City of Los Angeles (West Coast Basin) and the Cooper Drum Company Superfund Site, which is located in the City of South

Gate (Central Basin). Ms. Ly stated that the sites are on WRD's list of high-priority contaminated groundwater sites that are located within District boundaries.

As reported by Ms. Ly, various industrial activities were conducted at the Boeing C-6 Facility from 1940 to 1952, including aluminum and steel production. By the late 1990's, the site buildings were demolished and the site was redeveloped into commercial/light industrial facilities. Environmental investigations began at the site in the mid 1980's, under the oversight of the California Regional Water Quality Control Board (RWQCB). She said that remediation activities at the site included soil excavation, soil vapor extraction, and in-situ groundwater bioremediation. An on-site groundwater pump and treat system is currently being designed to remove volatile organic compounds (VOCs) from the Bellflower Aquitard and the Gage Aquifer.

Ms. Ly said that the Cooper Drum Company site was owned and operated by various drum recycling/reconditioning companies from 1972 to 1992. The drum reconditioning process consisted of flushing and stripping steel drums for painting and resale. Fluids generated by reconditioning and hard washing activities were collected in open concrete pits and trenches which led to the contamination of soil and groundwater beneath the site. In June 2001, the site was placed on the USEPA's National Priorities List (Superfund). Remediation activities at the site include an asphalt cap and a dual phase extraction (DPE) system. The soil vapor extraction portion of the DPE system has been operating since February 2011 and the DPE system is expected to be fully operational by the end of 2011.

6. SAFE DRINKING WATER PROJECT – MAYWOOD MUTUAL #3 PROSPECT ADOPTION OF CEQA NEGATIVE DECLARATION & AUTHORIZATION TO ADVERTISE FOR BIDS.

Associate Engineer Charlene King said that on October 21, 2011, the Board approved the Prospect Well as a project through the Safe Drinking Water Program. Ms. King said that we are restoring the system to its original state. She said that staff has prepared an Initial Study that concludes that no significant environmental impact is expected from the project. She noted that in accordance with the California Environmental Quality Act (CEQA) guidelines, the environmental documentation in the form of an initial study has been prepared and a 30-day public notice has been posted. No comments were received as of November 14, 2011.

The Committee concurred with the staff recommendation to adopt a Negative Declaration for the Maywood Mutual Water Company No. 3 Prospect Well Treatment Project and authorize advertisement for competitive bids toward construction of the wellhead treatment facility.

7. REVISED CONTRACT SERVICES AMENDMENT BETWEEN WRD AND CITY OF TORRANCE FOR GOLDSWORTHY DESALTER

Dr. Paul Fu said that the current agreement with the City of Torrance for the Goldsworthy Desalter will expire on December 31, 2011. Dr. Fu said that both parties have expressed a desire to continue with the agreement. The Committee recommended that the existing contract with the City of Torrance for the Goldsworthy Desalter be amended, subject to approval of form by District Counsel, to extend the expiration date to June 30, 2012.

8. DIRECTORS' REPORTS, INQUIRIES, AND FOLLOW UP OF DIRECTIONS TO STAFF

In response to Director Katherman's inquiry, Mr. Johnson and Dr. Chang stated that the draft newsletter for the pumpers is ready to go and is waiting for the General Manager's approval.

Director Katherman asked staff to write a letter to the United States Environmental Protection Agency (USEPA) summarizing the results of the November 22, 2011 meeting regarding the Del Amo Superfund Site.

9. ADJOURNMENT

There being no further business to come before the Committee, the meeting was adjourned at 1:45 p.m.

Chairperson

Attest:

Director



MEMORANDUM

ITEM NO. 4

Prepared by: Tiffani Fong
Reviewed by: Ted Johnson
Approved by: Robb Whitaker

DATE: JANUARY 25, 2012

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: MONTROSE CHEMICAL CORPORATION REPLENISHMENT ASSESSMENT EXEMPTION

SUMMARY

The Montrose Chemical Corporation facility is located at 20201 South Normandie Avenue in the City of Los Angeles, Los Angeles County. Montrose Chemical Corporation (Montrose) manufactured the pesticide dichlorodiphenyltrichloroethane (DDT) from 1947 until 1982. As a result of these operations, the groundwater aquifers beneath the site and vicinity contain contaminants associated with the DDT manufacturing process. According to Montrose, the groundwater plume is approximately 1.3 miles in length and 1 mile wide. The primary contaminants of concern in groundwater are chlorobenzene and para-chlorobenzene sulfonic acid (pCBSA).

In November 2011, WRD received an "Application for Replenishment Assessment Exemption on the Groundwater Clean-Up Program" from Montrose. WRD has the authority to provide exemptions to the Replenishment Assessment for groundwater treatment programs that remediate groundwater contamination and do not put the treated water to beneficial use. This authority is described in the attached Section 60318 of the California Water Code.

Montrose is currently designing a system to clean up the groundwater contamination associated with the site. The groundwater treatment system includes 14 extraction wells, injection wells, underground piping, and a treatment plant (i.e., air stripper and activated carbon system) that will be constructed on the Montrose site. Contaminated groundwater will be extracted from a maximum depth of 200 feet below ground surface (i.e., the Bellflower Aquitard and Gage Aquifer) and treated water will be returned to the same aquifers. Construction of the treatment system will be performed in phases beginning in the second quarter of 2012 and will continue into 2013. According to Montrose, the system is expected to operate for approximately 50 years. Montrose estimates that 1,300 acre feet per year of groundwater will be extracted for treatment from the 14 proposed wells.

The exemption to the Replenishment Assessment would be granted for 5 years with pumping not to exceed 1,300 acre feet per year. This production is not included in the District's annual estimate for Replenishment Assessment revenue. The conditions of this project are consistent with the criteria outlined in the Water Code (see attached).

Upon approval by the Committee, Staff and District Counsel will prepare a Resolution to take to the Board in February for approval of the Replenishment Exemption.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For discussion.

**CALIFORNIA WATER CODE
SECTION 60318**

§ 60318. Groundwater contamination; programs to remedy; exemption from replenishment assessment; resolution by board; rescission or modification.

- (a) If the board determines, by resolution, that there is a problem of groundwater contamination that a proposed program will remedy or ameliorate, an operator may make extractions of groundwater to remedy or ameliorate that problem exempt from any replenishment assessment if the water is not applied to beneficial surface use, its extractions are made in compliance with all the terms and conditions of the board resolution, and the board has determined in the resolution either of the following:
- (1) The groundwater to be extracted is unusable and cannot be economically blended for use with other water.
 - (2) The proposed program involves extraction of usable water in the same quantity as will be returned to the underground without degradation of quality.

The resolution may provide those terms and conditions the board deems appropriate, including, but not limited to, restrictions on the quantity of extractions to be so exempted, limitations on time, periodic reviews, and requirement of submission of test results from a laboratory holding a valid certification or accreditation as required by Section 13176, and any other relevant terms or conditions. Upon written notice to the operator involved, the board may rescind or modify its resolution. The rescission or modification of the resolution shall apply to groundwater extractions occurring more than 10 days after the rescission or modification. Notice of rescission or modification shall be either mailed first-class mail, postage prepaid, at least two weeks prior to the meeting of the board at which the rescission or modification will be made to the address of record of the operator or personally delivered two weeks prior to the meeting. All board determinations shall be final. (Added by Stats.1985, c. 537, § 1. Amended by Stats.2000, c. 727 (A.B.2886),



MEMORANDUM

ITEM NO. 5

*Prepared by: Cathy Chang
Reviewed by: Ted Johnson
Approved by: Robb Whitaker*

DATE: JANUARY 25, 2012

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: WORKSHOP ON DRAFT GROUNDWATER REPLENISHMENT REUSE REGULATION

SUMMARY

On November 21, 2011, the California Department of Public Health (CDPH) released its draft regulation for replenishing groundwater with recycled municipal wastewater. CDPH issued this latest version of the draft regulation after holding several internal meetings with a select group of industry experts who served as an advisory committee, including the District's Chief Hydrogeologist Ted Johnson. Under Senate Bill 918, the CDPH is mandated to "adopt uniform water recycling criteria for groundwater recharge by December 31, 2013". The final regulation will determine how future replenishment projects and existing recharge projects (affected when their water recycling permits require revision) are permitted and need to be operated in order to comply with the requirements of the regulation.

Since releasing the draft regulation, the CDPH has held three workshops to reach out to stakeholders and interested parties about the draft revised regulation and to seek comments to be submitted by January 30th. The District hosted one of the three workshops on December 7th, which was attended by over 75 participants from surrounding areas, including representatives from Orange County Water District, West Basin Municipal Water District, Los Angeles Department of Water & Power, Los Angeles County Sanitation Districts, and many others. The workshop presentations by the CDPH team included a historical perspective of the regulations, detailed criteria of the draft regulations, and the procedures for permitting and implementation of groundwater replenishment projects. The presentations were followed by discussion among peers in the groundwater field. A press release of the December 7th workshop was prepared and issued by the External Affairs Department on behalf of the District.

The District staff will continue to actively participate in stakeholder meetings organized by the WaterReuse Association- California to help formulate collective responses to the draft regulations such that potential hindrances to producing and utilizing recycled water for groundwater replenishment can be minimized.

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 6

Prepared by: Phuong Ly

Reviewed by: Ted Johnson

Approved by: Robb Whitaker

DATE: JANUARY 25, 2012

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: GROUNDWATER CONTAMINATION UPDATE

BACKGROUND

With the cooperation and support of stakeholders such as the United States Environmental Protection Agency (USEPA), California Regional Water Quality Control Board, Los Angeles Region (RWQCB), and California Department of Toxic Substances Control (DTSC), WRD developed a list of high-priority contaminated groundwater sites within District boundaries. 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 across the Central and West Coast Basins.

WRD has been working with the lead regulatory agencies for each of these sites to keep abreast of their status, review and provide recommendations as needed, facilitate progress in site characterization and cleanup, and provide technical and financial assistance when necessary. Below is a discussion of two sites that were recently updated with information obtained from the indicated lead regulatory agency.

STAUFFER CHEMICAL (WEST COAST BASIN)

From 1959 to 1982, the 25-acre site was used for the manufacturing of polyvinyl chloride (PVC) resin. The former manufacturing plant utilized 1,2-dichloroethane (1,2-DCA), vinyl chloride, and other volatile organic compounds as part of their operations, which mostly occurred at the western and central portions of the site. By the late 1980s, all manufacturing facilities and equipment were removed. The 14-acre western portion of the site is currently vacant and consists of wells and piping associated with the groundwater remediation system. The 11-acre eastern portion of the property is now owned by British Petroleum (6 acres) and by the City of Carson (5 acres). Due to historical site activities, soil and groundwater beneath the site is contaminated and environmental investigations began in the 1982 under the oversight of the DTSC.

The constituents of concern in groundwater are volatile organic compounds (VOCs), mainly chlorinated solvents. Groundwater contamination has been confirmed as deep as the Lynwood Aquifer. Contaminants have migrated off site and commingled with plumes originating from adjacent properties. As of June 2011, no chemicals of concern have been detected in the nearest active production (drinking water) wells.

Remediation activities at the site include the following:

- High Vacuum Vapor/Liquid Extraction (VLE) System: From mid-1998 to November 2011, a VLE system (up to 90 extraction wells) operated at the site to remove VOCs from soils and shallow groundwater. By November 2011, a total of 300,810 pounds of VOCs had been removed from the subsurface. Monitoring results demonstrated that the VLE system was effective at removing VOCs from the vadose zone, but less effective at removing VOCs from saturated soils.
- Enhanced In-Situ Bioremediation (EISB): In October 2011, EISB was initiated at the site to remediate groundwater beneath the site. Groundwater is extracted from the Gaspur and Gage Aquifers at the downgradient site boundary and mixed with electron donors (ethanol and sodium lactate) and re-injected into the aquifers to promote anaerobic degradation of VOCs.

SOCO LYNCH CORPORATION (CENTRAL BASIN, LOS ANGELES FOREBAY)

From the 1940s to late 1980s, the site was used for bulk industrial chemical storage, blending, and distribution. Chemicals used and stored at the site included solvents, resins, industrial acids, concrete sealers, cleansers, epoxies, etc. The chemicals were stored in underground and aboveground storage tanks, railcars, 55-gallon drums, and other smaller containers. The site is currently vacant and unpaved. Due to historical site activities, soil and groundwater beneath the site is contaminated and environmental investigations began in 1989 under the oversight of the RWQCB.

The constituents of concern in groundwater are volatile organic compounds (VOCs), mainly chlorinated solvents. Groundwater contamination has been confirmed as deep as the Gage Aquifer and contaminants have migrated off site. As of January 2011, no chemicals of concern have been detected in the nearest active production (drinking water) wells.

A soil vapor extraction (SVE) system has been continuously operating at the site since October 2007. As of September 2011, a total of 17,833 pounds of VOCs have been removed at the site.

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 7

<i>Prepared by:</i>	Paul Fu
<i>Reviewed by:</i>	Anthony La
<i>Approved by:</i>	Robb Whitaker

DATE: JANUARY 25, 2012

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

**SUBJECT: CONSULTANT SELECTION FOR THE FEASIBILITY STUDY ON
GOLDSWORTHY DESALTER EXPANSION**

SUMMARY

Since 2002, WRD's Goldsworthy Desalter (Desalter) has treated over 18,000 acre feet of saline groundwater for potable use by the City of Torrance. Realizing the benefits of salt removal and high quality product water, the City and WRD desire to evaluate the feasibility of expanding the Desalter, including construction of additional extraction wells.

Late last Year, the District successfully secured a federal grant through the WaterSMART Program for preparation of a feasibility study. The grant is administered by the U.S. Bureau of Reclamation (USBR) under Title XVI; and the District will be reimbursed up to 50% of the feasibility study cost, not to exceed \$132,555. The study is to evaluate the technical, environmental, legal, and institutional issues necessary to expand the facility from its current capacity of 2.5 million gallons per day (mgd) to a total of 5 mgd. The expansion will allow for increase in saline groundwater reclamation, as well as additional potable water delivery to Torrance.

On September 16, 2011, the District's Board approved the issuance of Request for Proposals (RFP) for professional services to perform the feasibility study. The RFP was subsequently posted on the WRD web site, as well as distributed to consultants on the District's pre-qualified list. On November 17, 2011, the District, in partnership with Torrance, hosted a pre-proposal meeting, with 24 individuals in attendance representing 21 consulting firms. On December 28, 2011, the District received 5 proposals; which were later evaluated by a 5-member review panel, consisting of three staff from the District and two from Torrance.

On January 10, 2012, the panel interviewed the top 3 consulting firms, and the final evaluation results (including the 4th and 5th ranked companies not invited to the interview) are summarized below.

FIRMS	Rank	Proposed Fee
CH2M HILL	1	\$219,773
Carollo	2	\$225,000
Geoscience	3	\$236,579
TetraTech	4	\$230,416
Base Water	5	\$277,347

Based on the companies' understanding of the project, proposed technical approach, knowledge and experience, the review panel considered CH2M HILL the most qualified for the project. CH2M HILL also assembled a strong project team with the lowest fee and solid experience in Title XVI feasibility studies. If awarded by the Board in February, the study is expected to complete by the summer.

FISCAL IMPACT

With the proposed fee of \$219,773, the study is estimated to cost a total of \$242,000, including a 10% contingency. Of the total cost, WRD will receive 50% reimbursement from USBR. Funds for the project have been included in the District's Fiscal Year 2011-12 capital improvement budget.

STAFF RECOMMENDATION

Award a professional services contract to CH2M HILL to evaluate the feasibility of expanding the Goldsworthy Desalter, including construction of additional extraction wells, and authorize a total expenditure of \$242,000, including contingencies.



MEMORANDUM

ITEM NO. 8

<i>Prepared by:</i>	Charlene King
<i>Reviewed by:</i>	Ted Johnson
<i>Approved by:</i>	Robb Whitaker

DATE: JANUARY 25, 2012

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: AMENDMENT TO TEST AMERICA ANALYTICAL, INC TITLE 22
MONITORING LABORATORY SERVICES

BACKGROUND

The District has been managing the Title 22 Groundwater Monitoring Program since January 1, 2007. This program provides sample collection, analysis, and reporting of drinking water wells results to the California Department of Public Health (CDPH) as required by state regulations. It ensures compliance with applicable source water quality monitoring requirements for drinking water wells. The District has provided this service to 20 pumpers subscribing to this program for currently over 80 wells.

Test America Analytical, Inc. was awarded a three year contract for laboratory services effective January 1, 2010. The costs for the 3 year term of this contract includes regulatory monitoring required by Title 22, monitoring required to comply with the Federal Unregulated Contaminant Monitoring Regulation 2 (UCMR2), and monitoring of constituents with state notification levels.

The cost of the program to the pumpers includes laboratory costs (passed on directly with no mark up) and the administrative costs of \$385 per well per year. All laboratory cost are initially paid by the District and reimbursed by the pumper. Over the past 2 years, increased sampling has been required due to the addition of new wells, reactivation of old wells, and increased sampling required by CDPH. The administrative cost and the sampling cost of each well sampled will remain unchanged but the number of samples required per well along with the addition of new wells to be sampled has increased. An increase of \$80,000 in the budget is needed to accommodate the additional wells and required sampling through the contracted expiration date of December 31, 2012.

Staff is in the process of discussing this increase with the participating pumpers and will provide an update to the committee.

FISCAL IMPACT

All laboratory cost are fully reimbursed to the District by the participating subscribers so there is no impact on the Replenishment Assessment.

STAFF RECOMMENDATION

For discussion.