

**MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CA 90712
12:00 P.M., WEDNESDAY, JULY 28, 2010**

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. APPROVAL OF THE MINUTES OF JUNE 23, 2010**
Staff Recommendation: Approve as submitted.
- 4. GROUNDWATER CONTAMINATION UPDATE**
Staff Recommendation: For information.
- 5. PROGRAMS TO ASSIST SMALL BUSINESSES IN CLEANING UP
CONTAMINATED PROPERTIES**
Staff Recommendation: For information.
- 6. DIRECTORS' REPORTS, INQUIRIES, AND REVIEW OF DIRECTIONS TO
STAFF**
- 7. ADJOURNMENT**

Posted by Abigail C. Andom, Deputy Secretary, July 22, 2010.

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

UNAPPROVED
MINUTES

**MINUTES OF JUNE 23, 2010
SPECIAL MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS OF THE
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

A special meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District of Southern California was held on Wednesday, June 23, 2010, 2:21 p.m., at the District Office, 4040 Paramount Boulevard, California. Chairperson Sergio Calderon called the meeting to order and presided thereover. Administrative Specialist Sheryll A. Moffat recorded the minutes.

1. DETERMINATION OF A QUORUM

Committee: Directors Sergio Calderon and Rob Katherman
Staff: Ted Johnson, Hoover Ng, Paul Fu, Charlene King

2. PUBLIC COMMENT

Chief Hydrogeologist Ted Johnson announced that Senior Engineer Hoover Ng will be retiring from the District effective July 9, 2010.

3. APPROVAL OF THE MINUTES OF MARCH 24, 2010 AND APRIL 14, 2010

The minutes were approved as submitted.

4. GROUNDWATER QUALITY UPDATE – PROPOSED WATER QUALITY REGULATIONS FOR 1,2,3 – TRICHLOROPANE

Senior Engineer Hoover Ng said that on June 29, 2010 the District is hosting a groundwater quality workshop. Mr. Ng said that the California Department of Public Health will be the featured presenter before an expected 40-50 representatives from various other agencies and cities.

Mr. Ng also informed the Committee that 1,2,3-trichloropropane (TCP) is a potential candidate for water quality rule marking in the near future. He said that TCP is a human carcinogen and that the new MCL may be set at 5 parts per trillion. He concluded by saying that there is no Federal standard for TCP.

The agenda items were taken out of order.

7. SAFE DRINKING WATER PROGRAM – MAYWOOD MUTUAL NO. 2- WELL 52ND AMENDMENT

Associate Engineer Charlene King said that the District executed an agreement with Maywood Mutual No. 2 in June of 2009 for installation of a wellhead treatment facility at Well 52nd which is currently affected with manganese and iron. Ms. King said that Maywood Mutual No. 2 has now requested a loan increase to cover additional installation changes and

unforeseen change orders in the amount of \$220,000. She said that the funding will come from District reserves and loan payments used to fund future Safe Drinking Water Projects.

The Committee concurred with the staff recommendation to approve an amendment to the Agreement and Promissory Note with the Maywood Mutual Water Company No. 2, subject to approval of form by District Counsel, increasing the agreement and promissory note amount by \$220,000 for a revised contract amount not to exceed one million on hundred and twenty thousand dollars (\$1,120,000).

5. GROUNDWATER QUALITY UPDATE- CHEMICALS OF EMERGING CONCERN SCIENCE ADVISORY PANEL DRAFT REPORT

Senior Engineer Hoover Ng said that the State Water Resources Control Board (SWRCB) adopted a new recycled water policy in May 2009 that recognized the importance and increased role of recycled water in the state. Mr. Ng explained that the policy has a provision to address new classes of chemicals, such as pharmaceuticals, personal care products and industrial chemicals, collectively referred to as "chemicals of emerging concern" (CEC) that may be present in recycled water. The policy also authorized the formation of a panel to address the issue and use the best science available for its work. He noted that the panel found only four compounds that met their criteria for potential health impacts: 17 beta-estradiol, a steroid hormone; Caffeine, a stimulant; Triclosan, an antimicrobial, and nitrosodimethylamine (NDMA), a disinfection byproduct.

Mr. Ng concluded his report saying that the Science Advisory Panel will submit their report to the SWRCB by June 25, 2010 and the SWRCB will consider adoption of this report and its recommendations in November 2010.

The Committee requested that this report go to the Board in August, as an information only item. They also directed staff to send a summary email to the Board on this item as well as develop a program similar to the Los Angeles County Sanitation District for the WRD to be a drop off point for the public to discard their unused and unwanted pharmaceuticals.

6. GOLDSWORTHY DESALTER UPDATE

Senior Engineer Dr. Paul Fu said that Madrona Well #2 supplies brackish water to the Goldsworthy Desalter and the well needs to be redeveloped every few years when production drops.

Chief Hydrogeologist Ted Johnson said that a more aggressive technique was tried this time – this one places liquid carbon dioxide (dry ice) in the aquifer and as it freezes up into dry ice it creates a lot of bubbles and this agitation helps to remove any particles that have built up on the well.

Mr. Johnson said this provided a 40% improvement on the well and staff will continue to monitor it.

Dr. Fu gave an update on a recent meeting with the City of Torrance regarding the City's operations of the Desalter. He explained that the City took over operations in January of 2010 and they are doing a good job. He said that Torrance would like to see the plant expanded, however, they understand the need to develop both the master plan for the West Coast Basin and the saline plume cleanup policy. Dr. Fu said at that meeting discussion was also held regarding future expansion of the Desalter, using vertical or horizontal well technology to maximize the chloride concentration. He said that Torrance will continue to use their water rights to extract groundwater from the Madrona Well and is acceptable to continue using their water rights for the pumping if there are no alternative solutions.

Director Katherman feels that we should move forward to work with Torrance to expand Goldsworthy Phase II and take the existing Madrona Well and get clarification from the court that the chloride count should be 500 parts per million. Mr. Johnson said that staff will follow this lead and work with Torrance to go forward with the expansion and work with District Counsel Ed Casey on the pumping rights.

7. DIRECTORS' REPORTS, INQUIRIES, AND REVIEW OF DIRECTIONS TO STAFF

Director Katherman recognized Mr. Ng for all of his efforts and thanked him for his years of service to the District.

Director Calderon said that several owners of small businesses have approached him where their property has been found to have groundwater contamination. He would like to explore the idea of creating a program to help small businesses who have discovered groundwater contamination that occurred prior to their ownership.

8. ADJOURNMENT

There being no further business to come before the committee the meeting was adjourned at 3:40 p.m.

Chairperson

ATTEST

Director



MEMORANDUM

ITEM NO. 4

Prepared by: Phuong Ly

Reviewed by: Ted Johnson

Approved by: Robb Whitaker

DATE: JULY 28, 2010

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: GROUNDWATER CONTAMINATION UPDATE

CONTAMINATED GROUNDWATER SITES

With the cooperation and support of stakeholders such as the United States Environmental Protection Agency (USEPA), Los Angeles Regional Water Quality Control Board (LARWQCB), 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 lead regulatory agency.

CONOCO PHILLIPS LOS ANGELES REFINERY (CITY OF CARSON, WEST COAST BASIN)

The Conoco Phillips Los Angeles Refinery is comprised of two active facilities: one in the City of Los Angeles (Wilmington area - a.k.a. Wilmington Plant) and the other in the City of Carson (a.k.a., Carson Plant). The two plants are connected by pipelines and together they provide complete petroleum refining operations. The Wilmington Plant is located approximately 2.5 miles southwest of the Carson Plant. Both plants have caused soil and groundwater contamination from past operations, and are actively investigating and cleaning up their sites under a Cleanup and Abatement Order issued by LARWQCB. Details follow regarding the Carson Plant:

Refinery operations have been conducted at the 245-acre Carson Plant since 1923. Constituents of concern in groundwater include volatile organic compounds (VOCs) and fuel oxygenates. Contaminants are detected in the Bellflower Aquitard, Gage Aquifer, and Silverado Aquifer beneath the site; the highest concentrations are detected in the Bellflower Aquitard. Below is a summary of the most recent analytical results of groundwater samples collected from the site.

SUMMARY OF RECENT GROUNDWATER ANALYTICAL RESULTS Conoco Phillips Los Angeles Refinery, City of Carson		
Chemical	Concentration in Groundwater (October 2009)	Maximum Contaminant Level (MCL)
Benzene	15,000 ug/L	1 ug/L
Toluene	530 ug/L	150 ug/L
Ethylbenzene	1,000 ug/L	300 ug/L
Xylenes	840 ug/L	1,750 ug/L
Methyl tert-butyl ether (MTBE)	2,100 ug/L	13 ug/L
1,2-Dichloroethane (1,2-DCA)	1.4 ug/L	0.5 ug/L
1,4-Dichlorobenzene (1,4-DCB)	6 ug/L	5 ug/L
cis-1,2-Dichloroethene (cis-1,2-DCE)	21 ug/L	6 ug/L
Vinyl chloride	1.8 ug/L	0.5 ug/L
Tert-butyl alcohol (TBA)	1,100 ug/L	None
Di-isopropyl ether (DIPE)	1,200 ug/L	None
Naphthalene	610 ug/L	None

Remediation activities at the site consist of light non-aqueous phase liquid (LNAPL) recovery (since January 1986) and soil vapor extraction (SVE). LNAPL recovery wells are located throughout the site and as of the end of 2009, a total of 29,521 barrels (~1.24 million gallons) of petroleum hydrocarbons have been recovered. An SVE system operates at the central portion of the site. As of December 31, 2009, the SVE system has removed approximately 204,384 pounds, or approximately 32,965 gallons, of petroleum hydrocarbons from soils.

The existing LNAPL recovery system requires upgrades and enhancements to improve residual LNAPL recovery. Along the western (downgradient) site boundary, the LNAPL recovery system is being re-designed to control migration of dissolved-phase hydrocarbons in the Bellflower Aquitard. Also, pilot testing of vapor enhanced pumping (VEP) is planned for early 2010 at select recovery wells at two interior portions of the site. Data obtained from these pilot tests will be used as part of the design to enhance dissolved-phase oxygenate recovery and residual LNAPL removal in the areas.

THRIFTY OIL STATION #010 (MONTEBELLO, CENTRAL BASIN, MONTEBELLO FOREBAY)

The site is an active retail gasoline station/convenience store owned by Thrifty Oil Co. and has been operated by BP West Coast Products (ARCO) since 1997. Soil and groundwater contamination had occurred at the site, but investigation and cleanup efforts were recently completed and as a result, the LARWQCB closed the case in October 2009. Details follow:

In June 1988, four single-walled underground storage tanks (USTs) were replaced by three 10,000-gallon double-walled USTs at the site. Approx. 150 cubic yards of hydrocarbon-impacted soil were removed during the UST replacement. Below is a summary table of the most recent available groundwater analytical results.

SUMMARY OF MOST RECENT GROUNDWATER ANALYTICAL RESULTS Thrifty Oil Station #010, Montebello		
Chemical	Maximum Concentration (April 2009)	Maximum Contaminant Level (MCL)
Total petroleum hydrocarbons as gasoline (TPH-g)	1,150 ug/L (Well MW-7)	None
Benzene	58 ug/L (Well MW-7)	1 ug/L
Methyl-tert-butyl ether (MTBE)	40 ug/L (Well MW-7)	13 ug/L
Di-isopropyl ether (DIPE)	22 ug/L (Well MW-7)	None
Tert-amyl methyl ether (TAME)	21 ug/L (Well MW-7)	None
Tertiary butyl ether (TBA)	290 ug/L (Well MW-7)	None

Free product historically has been detected in three on-site monitoring wells. Since 1997, a total of approximately 20 gallons of free product have been recovered. No free product has been detected in any monitoring wells since September 2006.

From January 2005 through March 2009, a soil vapor extraction (SVE) system operated at the site. The SVE system was shut down on March 19, 2009 due to low hydrocarbon concentrations in the influent. As of March 19, 2009, approximately 68,245 lbs of hydrocarbons have been removed through soil vapor extraction.

On October 30, 2009, the LARWQCB closed this case based on the following reasons:

- The lateral and vertical extent of hydrocarbon impact in the subsurface soil and groundwater has been defined,
- The leak has been stopped and potential sources (i.e., contaminated soils) have been removed or mitigated,
- The most recent groundwater monitoring results (April 2009) indicate TPH-g, benzene, MTBE, DIPE, TAME, and TBA were detected at maximum concentrations in the upgradient monitoring well (Well MW-7),
- The nearest active production well is located 0.7 mile upgradient from the site and as of August 2009, there have been no constituents of concern detected in this production well, and
- The residual soil and groundwater contamination would not cause any human health and environmental risks via major pathways, such as direct contact, drinking water ingestion, and vapor intrusion.

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 5

Prepared by: Phuong Ly

Reviewed by: Ted Johnson

Approved by: Robb Whitaker

DATE: JULY 28, 2010

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

**SUBJECT: PROGRAMS TO ASSIST SMALL BUSINESSES IN CLEANING UP
CONTAMINATED PROPERTIES**

At the last Groundwater Quality Committee meeting of June 23, 2010, the Directors asked staff to review programs that may assist small businesses with financial aid for cleaning up contaminated properties. Staff has researched existing programs and provides the following summary. Further details will be presented at the Committee meeting.

The United States Environmental Protection Agency (USEPA) defines "brownfields" as real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. To help address brownfields cleanup in California, various programs have been developed and are administered by the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB), which are departments under the California Environmental Protection Agency (Cal/EPA). Below is a list of the Federal and State-funded programs developed by these agencies to assist businesses who are interested in cleaning up and achieving regulatory closure of contaminated sites.

Orphan Site Cleanup Fund (OSCF) Program

The Orphan Site Cleanup Fund (OSCF) Program, administered by RWQCB, was established to provide financial assistance to eligible applicants, including businesses and public agencies, for the cleanup of brownfields sites contaminated by leaking petroleum underground storage tanks (USTs) where there is no financially responsible party. Under this Program, eligible applicants that own or have authority to access the contaminated property can receive the following: 1) assessment grants that provide funding for response actions that characterize, assess, and investigate an unauthorized release from a UST, and/or 2) cleanup grants that provide funding for response actions that carry out cleanup activities and include implementing a corrective action plan and verification monitoring.

Revolving Loan Fund (RLF) Program

The Revolving Loan Fund Program, administered by DTSC, provides low interest loans to help developers, businesses, schools, and local governments clean up and redevelop brownfields and underutilized properties. Parties responsible for the contamination are not eligible for these loans and the contaminated property cannot be a Superfund site. Eligible borrowers

can be any public or private entity with control over or access to the contaminated site and must have completed site assessment/investigation and prepared a remediation plan or equivalent. Available loans are from \$200,000 to \$900,000 per site and loan interest rates are based on the length of the loan, usually between 2% to 4.5%.

Cleanup Loans and Environmental Assistance to Neighborhoods (CLEAN) Program

The Cleanup Loans and Environmental Assistance to Neighborhoods (CLEAN) Program was established in 2000 and is administered by DTSC. The CLEAN Program provides financial incentives to encourage businesses, developers, schools, local governments, and others to accelerate the pace of cleanup and redevelopment of abandoned and underused urban properties. The first component of the CLEAN Program offers low interest loans of up to \$100,000 to conduct Preliminary Endangerment Assessments of qualified urban brownfields. If a site is found to be so contaminated that redevelopment doesn't make economic sense, up to 75% of the loan amount can be forgiven. The second component of the CLEAN Program offers low interest loans of up to \$2.5 million for cleanup and removal of hazardous materials at qualified urban properties where redevelopment is likely to boost property values, economic viability, and quality of life of a community.

Prospective Purchaser Agreements (PPAs)

Prospective Purchaser Agreements (PPAs) provide legal protection to purchasers or developers who are willing to clean up contaminated sites at their own expense, but are apprehensive about liability for existing contamination. Under a PPA, DTSC provides a covenant not to sue for existing contamination and provides for contribution protection. In exchange, the prospective purchaser agrees to a cleanup plan for the site, access for oversight, a commitment for future land use, and provision of significant public benefits. Public benefits include a significant increase in tax base, creating new jobs, or reuse improved quality of life in the area.

Voluntary Cleanup Program (VCP)

The Voluntary Cleanup Program (VCP) has been DTSC's primary brownfields vehicle since its inception in 1993. It was designed to restore low-risk properties quickly and efficiently when motivated parties, including businesses, developers, or local and State agencies, have agreed to pay all costs associated with site cleanup. Property owners with the resources to fund their own site cleanup are able to proceed at their own pace, with DTSC's oversight and in keeping with DTSC processes and standards. The VCP allows property owners more flexibility and control over their projects. When remediation is complete, DTSC will issue either a site certification of completion or a "No Further Action" letter, depending on the project circumstances, and the property is ready for productive economic use.

In addition to the Federal and State-funded programs listed above, there are private companies that also provide loans to businesses for the cleanup of contaminated properties.

Below is a list of websites that provide more details on the information presented herein.

1. <http://www.epa.gov/brownfields/index.html>
2. <http://www.calepa.ca.gov/brownfields/>
3. http://www.dtsc.ca.gov/SiteCleanup/Brownfields/index.cfm#CP_JUMP_13298

4. http://www.dtsc.ca.gov/SiteCleanup/Brownfields/Loans_Grants.cfm
5. http://www.swrcb.ca.gov/water_issues/programs/brownfields/
6. http://www.waterboards.ca.gov/water_issues/programs/ustcf/oscf.shtml

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

For information.