

**REGULAR MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
12621 E. 166th Street (Corner, Bloomfield & 166th), Cerritos, California
12:00 P.M., NOVEMBER 15, 2004**

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 AN "ACTION" TAKEN BY THE BOARD OR A COMMITTEE AT THE SAME MEETING.

- I. DETERMINATION OF A QUORUM**
- II. PUBLIC COMMENT**
- III. MINUTES OF THE REGULAR GROUNDWATER QUALITY COMMITTEE MEETING OF OCTOBER 18, 2004**
Staff Recommendation: Approve the minutes as submitted.
- IV. AB 303 LETTER OF SUPPORT FOR LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS**
Staff Recommendation: Recommend the Board authorize the General Manager to submit a letter of support to the Department of Water Resources for LACDPW's *Alamitos Seawater Barrier Telemetry System Construction* AB303 grant application.
- V. M.O.U. FOR GROUNDWATER CONTAMINATION INVESTIGATIONS IN THE CENTRAL AND WEST COAST BASINS**
Staff Recommendation: Recommend the Board enter into a Memorandum of Understanding with the stated government agencies for groundwater contamination investigations in the Central and West Coast Basins.
- VI. GROUNDWATER QUALITY REGULATORY UPDATE**
Staff Recommendation: For information.
- VII. GROUNDWATER CONTAMINATION UPDATE**
Staff Recommendation: For information.
- VIII. SAFE DRINKING WATER PROGRAM UPDATE**
Staff Recommendation: For information.
- IX. ROBERT W. GOLDSWORTHY DESALTER UPDATE**
Staff Recommendation: For information.
- X. ADJOURNMENT**

Agenda posted by Abigail C. Andom, Deputy Secretary, November 10, 2004.

MINUTES OF OCTOBER 18, 2004
A REGULAR MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA

A regular meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District of Southern California was held on October 18, 2004, at 1:02 p.m., at the District Office, 12621 E. 166th Street, Cerritos, California. Chairperson Robert W. Goldsworthy called the meeting to order and presided thereover. Deputy Secretary Abigail C. Andom recorded the minutes.

I. DETERMINATION OF A QUORUM

Committee: Directors Robert Goldsworthy and Albert Robles

Staff: Robb Whitaker, Ted Johnson, Hoover Ng, Jason Weeks,
Nancy Matsumoto, Charlene King, Paul Fu

II. PUBLIC COMMENT

None.

III. MINUTES OF THE REGULAR GROUNDWATER QUALITY COMMITTEE MEETING OF SEPTEMBER 20, 2004

The minutes were approved as submitted.

IV. AMERICAN WATER WORKS RESEARCH FOUNDATION RENEWAL

Senior Engineer Hoover Ng stated the District's annual membership to the American Water Works Association Research Foundation (AWWARF) was up for renewal. He explained the AWWARF sponsors applied research for all aspects of the drinking water industry including water resources, supply, quality, and distribution. Mr. Ng noted the AWWARF is funded through subscriber membership fees, which are typically based on the annual amount of water delivered or served to customers. He stated District staff had, in the past, determined a payment of \$40,000 was an appropriate level of membership. AWWARF had requested the same amount for continued subscription for the period October 2004 to September 2005.

The Committee concurred with staff's recommendation and recommended Board approval.

The agenda items were taken out of order.

VI. WATER AUGMENTATION STUDY, PHASE II UPDATE

Suzanne Dallman, Ph.D, Manager of Stormwater Programs of the Los Angeles and San Gabriel Rivers Watershed Council, gave an update on

the Los Angeles Basin Water Augmentation Study Phase I and II Monitoring Program. Dr. Dallman stated two sites were selected for Phase I monitoring during the period 2001 – 2002. She explained the sites were constructed in a commercial monitoring site – the Imax Corporation in Santa Monica and an elementary school monitoring site – the Broadous Elementary School in Pacoima. Phase II started in 2002 and is still in progress. Dr. Dallman noted six additional sites were added and three sites were in WRD’s service area. She stated the monitoring results to date show that constituents of concern detected in storm water include lead, arsenic, mercury, chromium 6, and perchlorate; total and fecal coliforms and e coli were detected in most stormwater samples but not in groundwater; some VOC were detected; and that infiltration is not negatively impacting groundwater.

V. AB303 GRANT APPLICATION RESOLUTION

Senior Engineer Jason Weeks stated staff intends to re-submit the AB303 application for the *Central Basin Groundwater Contamination Study* that was originally submitted on January 27, 2004 and was denied. Mr. Weeks explained since he met with Department of Water Resources’ (DWR) staff to go over the deficiencies of the prior application the District likely has a higher probability of securing grant funding this time. He added that one of the requirements of the application is a resolution by an agency’s governing authority designating an authorized representative to file an application and enter into an agreement for a grant.

Mr. Weeks stated in fiscal year 2004/05, six million dollars is available with the maximum grant to a single agency limited to \$250,000. He noted, if successful, the grant funds will allow WRD, in cooperation with the United States Geological Survey (USGS), California Department of Toxic Substances Control (DTSC), United States Environmental Protection Agency (USEPA), and Los Angeles Regional Water Quality Control Board (LARWQCB), to continue the investigation into the threat posed by shallow groundwater contamination on the drinking water supply in the Santa Fe Springs area.

The Committee recommended the Board adopt Resolution No. 04-721 approving submittal of applications for financial aid under the Local Groundwater Management Assistance Act of 2000.

VII. GROUNDWATER CONTAMINATION UPDATE

Senior Hydrogeologist Nancy Matsumoto presented overviews of two high-priority groundwater contamination sites within the District. The case files presented were Boeing Realty Corporation’s former C-1 Facility in Long Beach, and their former C-6 Facility in the Torrance. Ms. Matsumoto stated the Regional Water Quality Control Board (RWQCB) is the lead regulatory agency for both sites.

VIII. SAFE DRINKING WATER PROGRAM UPDATE

Assistant Engineer Charlene King provided an update on the District's Safe Drinking Water Program. Ms. King noted that additional water quality samples were taken on September 24, 2004 at Norwalk Well 8, owned by the City of Norwalk. The laboratory findings confirmed earlier indications of Mercury in the well and the level of 1,2- Dichloroethane was 1.5 times the MCL. The results also determined that Iron and manganese are below the maximum contaminant level (MCL).

Ms. King informed the Committee that construction has commenced with Pacific Hydrotech for the Southern California Water Company (SCWC) Converse Well project. She stated the treatment vessels from the Hoffman Well Project will be transported to the Converse site on October 21, 2004. Construction scheduled for completion by the end of the year.

Ms. King stated Cal Water Service Commerce Well 4L project will be re-bid in accordance with the revised WRD procurement policy on small business enterprise program.

Lastly, Ms. King stated SCWC has revised the bid package and will re-bid Imperial Wells 1, 2, and 3 project within two weeks.

IX. ROBERT W. GOLDSWORTHY DESALTER UPDATE

Senior Engineer Paul Fu provided the Committee with an update on the Goldsworthy Desalter. Dr. Fu said the Desalter delivered approximately 210 acre-feet of potable water to the City of Torrance in September 2004. He stated that chloride levels remained within 1,040 to 1,280 mg/L with an average concentration of 1,108 mg/L.

Dr. Fu also stated annual quantity of water delivered to the City of Torrance was approximately 2,403 acre-feet for the period October 2003 through September 2004. He noted that chloride concentrations for the year have been very consistent and remained within a narrow range throughout the year.

X. ADJOURNMENT

There being no more business to come before the Committee, the meeting was adjourned at 2:08 p.m.

Chairperson

ATTEST:

Director

MEMORANDUM

ITEM NO. IV

DATE: NOVEMBER 15, 2004

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: AB303 LETTER OF SUPPORT FOR LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

SUMMARY

In September 2000 the California General Assembly approved the Local Groundwater Management Assistance Act of 2000, known as AB303. The goal of AB303 is to help local agencies better understand how to manage groundwater resources effectively to ensure the safe production, quality, and proper storage of groundwater in the State.

AB303 created the Local Groundwater Assistance Fund from which the Department of Water Resources awards grants to local agencies to conduct groundwater studies or to implement groundwater monitoring and management activities. In Fiscal Year 2004/05, six million dollars is available with the maximum grant to a single agency limited to \$250,000.

Grants will be awarded for groundwater studies and projects that will contribute to basin and sub-basin management objectives including groundwater monitoring, groundwater basin management and groundwater studies. Priority is given to local public agencies that: (1) have adopted and implemented a groundwater management plan, or other formalized basin-wide planning program for its groundwater resources; and (2) demonstrate collaboration with other local public agencies regarding management of their groundwater basin or sub-basin.

The Los Angeles County Department of Public Works is planning to submit an application for a project entitled *Alamitos Seawater Barrier Telemetry System Construction*. If successful, the grant will provide funding for the county to install local and remote monitoring at the barrier project, thereby optimizing operation of the barrier and more rapidly preventing leakage than currently possible.

Optimized barrier operations will prevent periods of over and under-injection and reduce the need for future construction of new injection wells by maximizing the efficiency of the existing barrier infrastructure. This will result in efficient management and protection of the local groundwater resources, improved groundwater levels, and better wellhead pressures at the Alamitos Seawater Barrier Project.

LACDPW has requested that the District send a letter of support to the Department of Water Resources for its AB303 application. A copy of the letter of support has been included for review.

This grant application is a re-submittal of LACDPW's application that was submitted in January 2004 for the Fiscal Year 2003/2004 funding cycle. Both the Groundwater Clean-up Committee and the Board of Directors approved the letter of support at that time.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

Recommend the Board authorize the General Manager to submit a letter of support to the Department of Water Resources for LACDPW's *Alamitos Seawater Barrier Telemetry System Construction* AB303 grant application.

November 10, 2004

Tracie Billington
Department of Water Resources
Division of Planning and Local Assistance
P. O. Box 942836
Sacramento CA 94236-0001

**RE: SUPPORT LETTER FOR AB303 GRANT FILING FOR ALAMITOS
SEAWATER BARRIER TELEMTRY SYSTEM CONSTRUCTION**

Dear Ms. Billington

The Water Replenishment District of Southern California (WRD) supports the Los Angeles County Flood Control District's efforts to develop an automated data acquisition (telemetry) system to measure water injection rates at the Alamitos Seawater Barrier.

WRD recognizes that the telemetry system will provide local and remote monitoring capabilities of conditions at the barrier project, thereby optimizing operation of the barrier and preventing leakage more rapidly than currently possible.

Optimized barrier operations will prevent periods of over and under injection and reduce the need for future construction of new injection wells by maximizing the efficiency of the existing barrier infrastructure. This will result in better management and protection of the local groundwater resources, improved groundwater levels, and sustained wellhead pressures at the Alamitos Seawater Barrier Project.

The optimization of this barrier system will have a direct economic impact on WRD and the region that it serves by potentially reducing the quantity of water that must be purchased for this barrier system.

Further, this project is part of a joint project between the Los Angeles County Department of Public Works, WRD, and the U.S. Bureau of Reclamation in which design plans were developed and a pilot telemetry system was constructed. The pilot system has proven to operate as designed.

The construction of the telemetry system fits in with potential future projects that will seek to install more automated equipment and further optimize barrier operations.

We fully support the proposed project. Please call me at (562) 921-5521 if you have any questions.

Sincerely,

Robb Whitaker
General Manager
Water Replenishment District of Southern California

cc. Al Gribnau, LACDPW
Gary Hildebrand, LACDPW

DRAFT



MEMORANDUM

ITEM NO.V

Prepared by: Ted Johnson

Reviewed by: Robb Whitaker

DATE: NOVEMBER 15, 2004

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: M.O.U. FOR GROUNDWATER CONTAMINATION INVESTIGATIONS IN THE CENTRAL AND WEST COAST BASINS

SUMMARY

For over a year Staff has been holding regular meetings with representatives from the Los Angeles Regional Water Quality Control Board (RWQCB), California Department of Toxic Substances Control (DTSC), the U.S. Environmental Protection Agency (EPA), the U.S. Geological Survey (USGS), and the City of Santa Fe Springs to address several particular contamination sites in the Santa Fe Springs/Whittier area. The purpose of the meetings is to compile information and coordinate activities to best understand the threat of the shallow groundwater contamination to the deeper drinking water aquifers. WRD will be submitting an AB303 application to the State for grant funding to help finance a USGS study on the threat.

One result from the meetings was a desire by the parties to enter into a Memorandum of Understanding (MOU) to document our cooperation in sharing data and managing site investigations throughout the Central and West Coast Basins. The MOU is designed to be general in nature and not commit any agency to any specific scope of work or monetary requirements, although WRD has offered to be the repository for the data collected for the sites the group chooses to work on together. The MOU will be very useful to help obtain funding by demonstrating multi-agency cooperation, and it will form a basis for the agencies to work more closely together on groundwater contamination cases.

The MOU was originally written by District counsel and has been under review by the various agencies for the past year. It has received approval by all staffs at this time, although there may still be some final legal reviews by various agencies. However, in order to get the MOU in our upcoming AB303 application (due December 2), WRD Staff is bringing it to the Committee now for review and then to the November 17 Board meeting if approved by the Committee. It is attached to this write-up for review and comment by the Committee.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

Recommend to the Board to enter into a Memorandum of Understanding with the stated government agencies for groundwater contamination investigations in the Central and West Coast Basins.

**MEMORANDUM OF UNDERSTANDING CONCERNING
POTENTIAL SOURCES OF GROUNDWATER CONTAMINATION
IN THE CENTRAL and WEST COAST GROUNDWATER BASINS,
LOS ANGELES COUNTY, CALIFORNIA**

This Memorandum of Understanding (“MOU”) is made and entered into this ___ day of _____ 2004 by and between the Water Replenishment District of Southern California (“WRD”), the United States Environmental Protection Agency (USEPA), the United States Geological Survey (“USGS”), the Regional Water Quality Control Board, Los Angeles Region (“RWQCB”), the California Department of Toxic Substances Control (“DTSC”), and the City of Santa Fe Springs (collectively, the “Parties”). The Central and West Coast groundwater basins are located within the Coastal Plain of Los Angeles County and provides over a third of the water supply (approximately 250,000 acre-feet per year) to the overlying 4 million people in 43 cities (see Figure 1). Protection and enhancement of this valuable water resource is a critical mission of several Federal, State, and Local agencies.

The purpose of this MOU is to provide a framework for the Parties to share data in order to perform an evaluation of known and/or potential sources of contamination within the Central and West Coast groundwater basins and to coordinate the Parties activities in evaluating known and/or potential sources of contamination on a region-wide basis.

I. RECITALS

- A. WRD is organized and operating pursuant to California Water Code Section 60000 et seq. WRD is authorized by that statute to protect and preserve the quantity and quality of the groundwater supplies in the Central and West Coast Groundwater Basins (“Basins”), and is further authorized to take any action to prevent contaminants from entering the Basins, remove contaminants from the Basins, determine the nature of groundwater contamination in the Basins, and determine persons responsible for groundwater contamination in the Basins.
- B. RWQCB is organized and operating pursuant to California Water Code Section 13000 et seq. RWQCB is charged with the responsibility to protect surface and groundwater quality within the geographic area of its jurisdiction, which includes the Coastal watersheds of Los Angeles and Ventura Counties.
- C. DTSC is organized and operating pursuant to California Health & Safety Code, Division 20, Chapters 6.5 (commencing with section 25100) and 6.8 (commencing with section 25300). Health & Safety Code section 25259.7 authorizes DTSC to carry out all hazardous waste management

responsibilities imposed or authorized by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. section 6901 et seq.) (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. section 9601 et seq.) (CERCLA) and any regulations promulgated pursuant to these federal acts. Under the Hazardous Substance Account Act, Health & Safety Code sections 25300-25395.45, DTSC implements a program to provide for responses to releases of hazardous substances, including preparation and approval of Remedial Action Plans (RAPs) for Site cleanup activities. DTSC is authorized to enter into enforceable agreements with or to issue orders to potentially responsible parties for Site cleanup.

- D. USEPA is operating pursuant to the Comprehensive Environmental Responsibility Compensation and Liability Act (“CERCLA”), 42 U.S.C. 9601, et seq. Under this statute, the President of the United States has the authority to respond to releases of hazardous substances, pollutants or contaminants when response is necessary to protect public health or welfare or the environment. By Executive Order 12580, as amended by Executive Order 13016, the President has delegated to EPA CERCLA authority to investigate and respond to such releases of hazardous substances, pollutants, or contaminants under specified circumstances. See, Executive Order. No. 12580, 52 F.R. 2923 (1987) (as amended by Executive Order No. 13016, 61 F.R. 45871 (1996)).
- E. USGS is organized and operating pursuant to 31 USC 153.
- F. The City of Santa Fe Springs is **[describe authority]**
- G. Contamination from chemicals such as volatile organic compounds, heavy metals, semi-volatile organic compounds, and others have been identified in portions of the shallow aquifers in the Basins. Such contamination may pose a threat to the deeper drinking water aquifers, and may adversely impact future withdrawal and/or spreading and storing of water in the deeper aquifers in those parts of the Basins.
- H. The Parties seek to work cooperatively together to the extent possible through communication and coordination of activities to properly address that contamination on a more regional basis.

Now, THEREFORE, it is mutually agreed by and between the Parties as follows:

II. AGREEMENT

A. The Parties agree to work together on mutually selected sites and/or areas to evaluate groundwater contamination or threat of contamination on a region-wide basis. This may include, to the extent authorized by law:

1. To the extent that the release of information does not conflict with existing laws and internal policies, the Parties shall collect and exchange reports, information and data that is relevant to the contamination described herein and its potential impact on the deeper aquifers in the Central and West Coast Basins. WRD will act as the central repository for the information gathered for the selected sites / areas of investigation and will maintain a copy of all the documents containing that information and data at its offices. Each Party will have ready access to that information by requesting a copy from WRD.

2. Depending on the particular agency's abilities and responsibilities, the Parties shall work cooperatively with each other in analyzing the above-referenced information and formulating the steps necessary to investigate and mitigate any potential harm to the Basins posed by the contamination. The roles of the various Parties may vary depending on the resources available to each party. This MOU does not imply any commitment on the part of any of the Parties to undertake any cleanup of contamination in the Central or West Coast Basin.

B. This MOU is voluntary. Any Party may withdraw from the MOU by giving 30 days written notice to all the other Parties. This MOU will be reviewed and evaluated on an annual basis. This MOU may be modified only in writing signed by all the parties hereto.

C. All notices required by this MOU will be in writing and will be sent by first-class mail and facsimile transmission as follows:

If to WRD:

Ted Johnson
Water Replenishment District of
Southern California
12621 E. 166th Street
Cerritos, CA 90703
Work: (562) 407-1919
Fax: (562) 407-1919
Email: tjohnson@wrdd.org

If to DTSC

Ryan Kinsella
Department of Toxic Substances Control
1011 N. Grandview Ave.
Glendale, California 91201
Work: (818) 551-2961
Fax: (818) 551-2832
Email: Rkinsell@dtsc.ca.gov

If to RWQCB

Jonathan Bishop
Los Angeles Regional Water Quality Control Board
201 N. Figueroa Street, Ste. 285
Los Angeles, CA 90012
Work: (213) 576-6605
Fax: (213) 576-6625
Email: jbishop@waterboards.ca.gov

If to USEPA

Chris Lichens
United States Environmental Protection Agency
75 Hawthorne St.
San Francisco, CA 94105
Work: (415) 972-3149
Fax: (415) 972-3149
Email: lichenschristopher@epa.gov

If to USGS

Eric Reichard
United States Geological Survey
5735 Kearny Villa Rd, Suite O
San Diego, CA 92123
Work: (858) 637-6834
Fax: (858) 637-9201
Email: egreich@usgs.gov

If to Santa Fe Springs

Ron Hughes
City of Santa Fe Springs
11710 Telegraph Road
Santa Fe Springs, CA 90670
Work: (562) 868-0511
Fax: (562) 462-1231
Email: ronhughes@santafesprings.org

- D. All commitments made by the Parties to this MOU are subject to the availability of appropriated or otherwise authorized funding.
- E. Each person signing this MOU represents that he or she has the authority to do so on behalf of the Party for whom he or she is signing.

IN WITNESS WHEREOF, the Parties have caused this MOU to be executed the day and year first above written.

WATER REPLENISHMENT DISTRICT

Willard H. Murray, Jr., Board President

Albert Robles, Board Secretary

DATE: _____

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Sayareh Amir, Chief
Southern California Cleanup Operations Branch - Glendale Office

DATE: _____

UNITED STATES GEOLOGICAL SURVEY

Michael V. Shulters

DATE: _____

REGIONAL WATER QUALITY CONTROL BOARD - LOS ANGELES REGION

Jonathan Bishop, Executive Officer

DATE: _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Wayne Nasti, Regional Administrator

DATE: _____

CITY OF SANTA FE SPRINGS

DATE: _____



Figure 1 - Study Area for MOU. Central and West Coast Basins



MEMORANDUM

ITEM NO. VI

Prepared by: Hoover Ng

Reviewed by: Ted Johnson

DATE: NOVEMBER 15, 2004

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: GROUNDWATER QUALITY REGULATORY UPDATE

SUMMARY

The State Department of Health Services (DHS) has indicated that chromium, arsenic, and perchlorate are contaminants of recent concern in groundwater.

1. Chromium 6 – Currently, the total chromium MCL is 50 ppb. It exists primarily as chromium 3 and chromium 6. Chromium 3 is a nutrient that is found in food and vitamins. Chromium 6, aka hexavalent chromium, is known to cause cancer when inhaled. The conversion or reduction of chromium 6 to chromium 3 is likely to occur in gastric juices. Based on a review of limited studies, the state Office of Environmental Health Hazard Assessment (OEHHA) in 1999 established a public health goal (PHG) of 2.5 ppb of total chromium assuming 7 percent of this amount originates from chromium 6. However, OEHHA rescinded this PHG, and is now reviewing additional information to establish a new PHG. The Chromate Toxicity Review Committee was formed at the request of OEHHA to provide guidance in the identification of an optimum PHG for chromium 6 in drinking water. The committee concluded that "we found no basis in either the epidemiological or animal data published in the literature for concluding that orally ingested Cr (VI) [chromium 6] is a carcinogen." DHS is required to adopt a new MCL for chromium 6 by January 1, 2004. It is currently considered an "unregulated contaminant requiring monitoring".

Komex H2O Science, Inc. completed static spinner logging of the Hoffman Well, which is owned by Southern California Water Company (SCWC). This well contained total chromium at 333 ppb. Evaluation of the data is in progress, and a technical report is being prepared.

Various treatment technologies are being evaluated to determine the most effective alternatives to reduce chromium to less than 5 ppb. Candidates include ion exchange, both cation and anion, oxidation-reduction, and proprietary adsorption systems. In addition to evaluating the effectiveness of treatment, the generated wastes are also being evaluated to determine if they are either hazardous or nonhazardous. Some of these treatment systems capture vanadium and uranium in the waste stream, which is undesirable.

2. Arsenic – Compliance with the new MCL of 10 ppb is required by January 23, 2006. Arsenic occurs naturally in groundwater and causes cancer and other diseases, such as

high blood pressure and diabetes. Section 116361 of the State's Health and Safety Code (SB 463 (Perata)) requires the State Department of Health Services (DHS) to adopt a new arsenic MCL by June 30, 2004, 1½ years before compliance is required by EPA. The DHS is required to establish a new standard at a maximum of 10 ppb, but it has the option of setting it lower. On March 7, 2003, OEHHA issued a draft PHG, a standard based on health effects alone, at 0.004 ppb, which is 2500 times lower than the MCL. In October 2004, Dr. David Spath of the DHS indicated that they would most likely recommend setting the MCL at 10 ppb. Also, he recognizes that many small water systems may be adversely impacted and would not be able to afford centralized treatment, and therefore, the DHS is considering the option of point of use devices for small communities.

Major issues include both technical and economic feasibility. Various pilot tests show promising results using various technologies, including ion exchange, disposable adsorption media, and activated alumina. SCWC's demonstration project in partnership with WRD at their Century Well in Paramount has successfully used iron based adsorbents (granular ferric hydroxide) to remove arsenic. However, the disposal of residuals has become problematic. The California Waste Extraction Test (WET) measures the leachability of the residuals if they are disposed in landfills. Not all residuals from treatment processes are able to meet this criterion.

3. Perchlorate is a contaminant of industrial origin. It is a component of rocket fuel, and can inhibit the uptake of iodide by the thyroid gland, which leads to impairment of metabolism, proper development of young children, and creation of tumors in the thyroid. Especially sensitive populations include pregnant women, fetuses, infants and small children, and individuals that have hypothyroidism. The State Department of Health Services reduced the action level from 18 ppb to 4 ppb, the analytical detection limit, on January 18, 2002. If a well is found to contain perchlorate above 40 ppb, the DHS recommends removing that well from service.

Section 116275 of the Health and Safety Code requires DHS to adopt a new MCL by January 1, 2004. OEHHA finalized the PHG in March 2004 at 6 ppb. OEHHA also indicated that they consider the results of an investigation of health effects studies by the National Academy of Sciences, due in early 2005, and if there is conflict with their findings, then they may revise this PHG. Effective treatment is with ion exchange, bioreactors, and granular activated carbon (GAC). Perchlorate in MWD's Colorado River water has been 4 – 6 ppb, but blended water in the Los Angeles area has been consistently below 4 ppb.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. VII

Prepared by: Benny Chong

Reviewed by: Ted Johnson

DATE: NOVEMBER 15, 2004

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: GROUNDWATER CONTAMINATION UPDATE

SUMMARY

As reported previously, WRD has been conducting a District-wide investigation to identify and prioritize WRD's level of effort in assisting regulatory agencies to oversee monitoring and remediation of high-priority groundwater contamination sites across the District. WRD staff is continuing weekly visits to the California Regional Water Quality Control Board (RWQCB) office and local Environmental Protection Agency (EPA) repositories to review case files on their highest-priority groundwater contamination sites (as identified by RWQCB and EPA personnel). Staff has generated concise summaries of these case files. To date, staff has reviewed 28 RWQCB and Department of Toxic Substances Control (DTSC) case files with 2 more sites planned. In addition, staff will also complete reviews of at least 6 EPA sites. Staff will continue to provide monthly updates on these case file reviews to the Committee as this effort proceeds.

Summaries of two RWQCB case files, Honeywell El Segundo and Thrifty Oil Station #010, are attached as reference, and will be discussed at the Committee meeting.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.

**Honeywell El Segundo Site
Key Facts At A Glance
Last Update: 6/30/04**

Location:	850 South Sepulveda Blvd El Segundo, CA 90245 West Basin Nearest active production well is 1.5 miles to the southeast.
Description:	<p>The approximately 55-acre site is located in a largely industrial/commercial section of the City of El Segundo. The project site is comprised of 13 separate parcels of varying size. The site is bounded by Sepulveda Blvd to the west, Hughes Way to the north, Douglas Street (and numerous light industrial/commercial facilities) to the east and Rosecrans Blvd to the South.</p> <p>The site was originally constructed to produce and recycle sulfuric acid but was later expanded to include 1) phthalic anhydride (plastic resins) from 1963 to 1982; 2) solvents packaging and distribution from 1964 to 1978; 3) solvents distribution at another plant from 1985 to 1992; 4) production of refrigerants from 1964 to Feb 2003; and 5) distribution of refrigerants from another plant from the 1980s to Feb 2003. Also occurring on the site was the production of chemical salts, pesticide grinding and packaging, and production of liquid aluminum chloride and sulfate. All site operations ceased in Feb 2003 (demolition activities are still ongoing).</p> <p>The primary chemicals of concern are VOCs potentially associated with the Refrigerant Plant (37.3 acres) in the north part of the facility. The highest levels of TCE and cis-1,2-DCE are detected in the southwest corner (4.7 acres) of the site associated with the Old Solvents Warehouse. 12.9 acres of land are unlined natural depression areas (UNDs).</p>
Chemicals of concern in groundwater:	1,1-dichloroethene [1,1-DCE], cis-1,2-DCE, Benzene, Carbon Tetrachloride, Chloroform, Ethyl Benzene, Methylene Chloride, Toluene, Trichlorofluoromethane [CFC-11], Trichloroethylene (TCE), xylenes, arsenic, cadmium, chromium, nickel and thallium. Historical detections of cis-1,2-DCE, Carbon Tetrachloride and TCE in groundwater have been in the thousands parts per billion and for chloroform, in the tens to hundreds of thousands parts per billion.
Extent:	Two distinct VOC-containing plumes have been identified originating from the Refrigerant Plant and one from the Old Solvents Warehouse at the SW Corner Lot. VOCs have primarily been detected in the uppermost aquifer, the Old Dune Sand (ODS). Lower levels of VOCs have been detected in the underlying Gage Aquifer. The El Segundo Aquitard underlies the Gage Aquifer and generally consists of silt and clay that range in thickness from 15 to 35 feet.
Monitoring:	<p>22 groundwater monitoring wells have been installed in two aquifers, the ODS and Gage Aquifers, onsite and offsite for quarterly water level measurements and sampling.</p> <p>ODS screen intervals range from 71 to 154 ft bgs (25 to -17 ft msl). Gage screen intervals range from 115 to 178 ft bgs (-20 to approximately -42 ft msl).</p> <p>Depth to first groundwater approximately 80 to 90 ft below ground surface (bgs) Per March 2004, ODS Aquifer: groundwater flow east-southeast, gradient from 0.0035 ft/ft Per March 2004, Gage Aquifer: groundwater flow east to northeast</p>
Remediation:	Since 1996, numerous phases of remedial investigations and groundwater monitoring have been conducted. In 2000, Honeywell installed and has operated since, a soil gas extraction (SVE) system to remediate elevated VOCs in the vadose zone beneath the Refrigeration Plant area. Groundwater characterization is ongoing. RWQCB approved a work plan for Revised Phase I Site Redevelopment for Shallow Soil Interim Remedial Measure in March 2004. From Oct 2000 through March 2004, the SVE system has extracted 96,000 lbs of VOCs. 5 additional down gradient and offsite ODS and Gage Aquifer monitoring wells will be installed pending permit access.
Procedures:	Honeywell International Inc retains their own consultant, Parsons (Walnut Creek, CA), to manage groundwater monitoring and reporting to RWQCB
Stakeholders:	Honeywell – property owner Regional Groundwater Quality Control Board (RWQCB) – lead regulatory agency City of El Segundo

Thrifty Oil Station #010
(ARCO #9508)
Key Facts At A Glance
Last Update: 8/12/04

Location:	1700 West Whittier Blvd Montebello, CA 90640 Located in the Central Basin Nearest active production well located ~0.33 mile south-southwest of site
Description:	<p>The site is an active retail gasoline station/convenience store located at the northwest corner of the intersection of Whittier Blvd and Vail Avenue in the City of Montebello. The site is owned by Thrifty Oil Co and has been operated by ARCO Products Co. since April 1997. The Rio Hondo Spreading Grounds are located about 1.1 miles to the east. The Gage Aquifer occurs approximately 75 feet below the site and is not used for supply in this region.</p> <p>In June 1988, 4 underground single-wall underground storage tanks (USTs) were removed and replaced by 3 10,000 gallon, double-walled fiberglass USTs. Line, dispenser and tank sump replacement and upgrades occurred in April 2003.</p>
Chemicals of concern in groundwater:	Total Petroleum Hydrocarbons (TPHs): gasoline, BTEX compounds Gasoline additives/oxygenates: MTBE, ETBE, DIPE, TAME and TBA
Extent:	The majority of the fuel released beneath site is in the vicinity of the former USTs. Gasoline free product has been detected historically in 2 monitoring wells ranging in apparent thickness from a film to 2.18 feet. Free product is still being withdrawn from MW-7 on a weekly basis but at a thickness of 1 inch (equivalent to 0.05 gal). Since 1997, a total of 16.8 gallons of free product have been recovered.
Monitoring:	9 monitoring wells are gauged and sampled every quarter (7 onsite, 2 offsite).
Groundwater gradient:	Groundwater flows to the west-southwest at an approximate gradient of 0.0046 ft/ft (Jan 2004) Groundwater under unconfined conditions and first depth to water from 100 to 105 ft below ground surface.
Remediation:	Since 1988, a variety of borings and soil investigations have been conducted at the site. 150 cubic yards of impacted soil removed around former UST in May 1988. RWQCB approved final Remedial Action Plan (RAP) on 1/24/03. Implementation of a 6-well vapor extraction (VE) system scheduled to start by June 2004. The VE wells will be used to remediate site soils that have been impacted by petroleum releases within the shallower depths beneath the site. The estimated time frame for the operation of a soil vapor extraction system is 1-3 years.
Procedures:	Thrifty Oil Co. retains their own consultant, GeoHydrologic Consultants Inc. (Costa Mesa, CA), to manage groundwater monitoring and reporting to RWQCB
Stakeholders:	Thrifty Oil Co – property owner Regional Groundwater Quality Control Board (RWQCB) –lead regulatory agency City of Montebello



MEMORANDUM

ITEM NO. VIII

Prepared by: Charlene King

Reviewed by: Mario Garcia

DATE: NOVEMBER 15, 2004

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: SAFE DRINKING WATER PROGRAM UPDATE

SUMMARY

The District is currently managing several projects under its Safe Drinking Water Program (SDWP), which provides wellhead treatment facilities to remove contaminants and improve water quality. The following is a brief update of activities:

- 1) **Norwalk Well 8 (City of Norwalk):** Additional water quality samples were taken on September 24th that confirmed earlier results showing detectable levels of mercury in addition to rising levels of 1, 2-Dichloroethane in the raw water. The treatment system was designed to treat 1, 2-Dichloroethane; however, if contamination levels continue to rise, carbon replacements will occur more frequently. The California Department of Health Services (DHS) has subsequently determined that this well be identified as an extremely impaired water source and will be subject to all parameters of the Policy Memo 97-005 Guidelines for Extremely Impaired sources. In addition, DHS has required the City to implement an "early warning" system through the installation of monitoring wells less than one mile from Well 8. The added costs to comply with these requirements may be too onerous for the City, and it is contemplating its options for the project. It is highly likely that the City will abandon this project at this time. If the project is abandoned, WRD staff will evaluate its options with respect to the treatment equipment and appurtenant facilities at Norwalk Well 8 to determine what can be transferred to another project.
- 2) **Converse Well (SCWC):** A pre-construction meeting was held September 23, 2004 between SCWC, Pacific Hydrotech, and WRD. Construction began September 29 and the contractor has relocated the treatment vessels from the Hoffman Well Project to the Converse Well location. Construction is scheduled for completion by the end of the calendar year.
- 3) **Commerce Well 4L (operated by Cal Water Service):** The project is still awaiting the finalization of proposed changes to WRD's procurement policy as it relates to Small Business Enterprise (SBE) participation. Once the policy changes are resolved, the project will be re-bid in accordance with the new WRD procurement policy.

- 4) **Imperial Wells 1, 2, & 3 (SCWC):** SCWC is currently revising the bid package and plans to re-bid the project.

FISCAL IMPACT

The existing projects total \$2.8 million and were included in previous years' budgets under the Safe Drinking Water Program.

STAFF RECOMMENDATION

For information.



MEMORANDUM

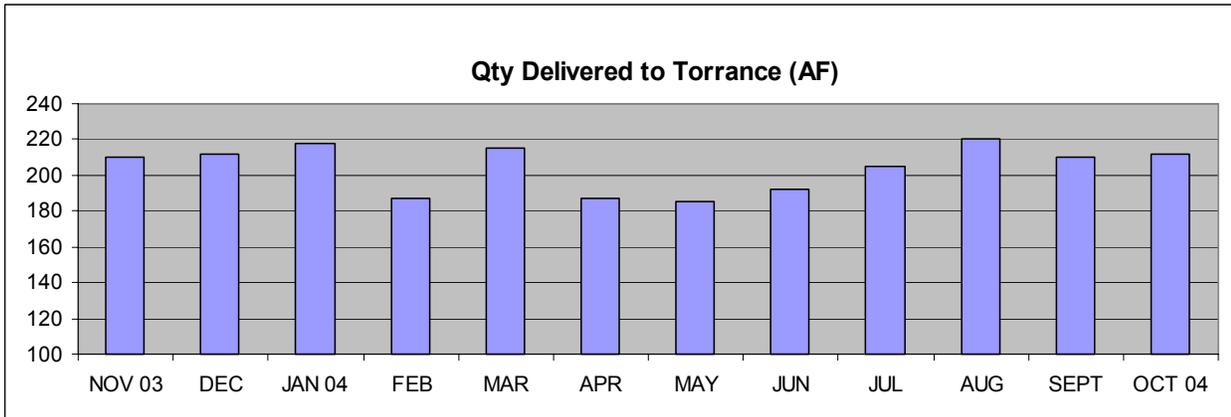
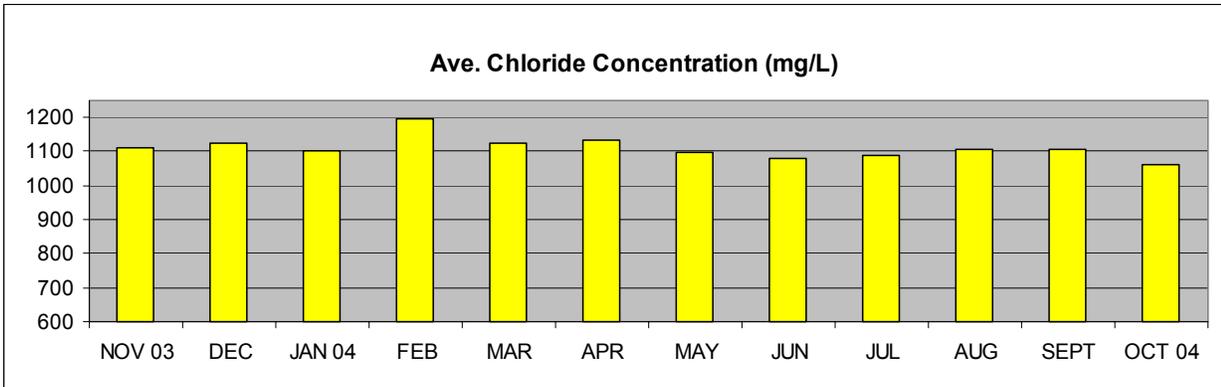
ITEM NO. IX

Prepared by: Paul Fu
Reviewed by: Mario Garcia

DATE: NOVEMBER 15, 2004
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: ROBERT W. GOLDSWORTHY DESALTER UPDATE

SUMMARY

The Goldsworthy Desalter delivered approximately 212 acre-feet of potable water to the City of Torrance in October 2004. During the month, the chloride level in the well water remained within 1,030 to 1,080 mg/L with an average concentration of 1,061 mg/L. The charts below summarize the monthly water deliveries to Torrance and average chloride concentrations from November 2003 through October 2004. The chloride concentrations have been very consistent and remained within a narrow range throughout the year. Total annual quantity of water delivered to City of Torrance is approximately 2,453 acre-feet. The Desalter was online (i.e., in production) for 93 percent of the past year.



The Desalter operations were shut down on October 26th due to a power failure that caused a safety valve on a chemical storage tank to lock up. The valve lock-up was repaired, and the Desalter resumed its operations the following day.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.