

**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
1:00 P.M., DECEMBER 7, 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 NOVEMBER 15, 2004**
Staff Recommendation: Approve the minutes as submitted.
- IV. DHS POLICY MEMO 97-005, GUIDANCE FOR DIRECT DOMESTIC USE OF EXTREMELY IMPAIRED SOURCES**
Staff Recommendation: For information.
- V. GROUNDWATER CONTAMINATION UPDATE**
Staff Recommendation: For information.
- VI. SAFE DRINKING WATER PROGRAM UPDATE**
Staff Recommendation: For information.
- VII. ROBERT W. GOLDSWORTHY DESALTER UPDATE**
Staff Recommendation: For information.
- VIII. ADJOURNMENT**

Agenda posted by Abigail C. Andom, Deputy Secretary, December 1, 2004.

MINUTES OF NOVEMBER 15, 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 November 15, 2004, at 12:01 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, Mario Garcia, Ted Johnson, Hoover Ng,
Jason Weeks, Benny Chong, Charlene King, Paul Fu

II. PUBLIC COMMENT

None.

III. MINUTES OF THE REGULAR GROUNDWATER QUALITY COMMITTEE MEETING OF OCTOBER 18, 2004

The minutes were approved as submitted.

IV. AB 303 LETTER OF SUPPORT FOR LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

Assistant General Manager/Chief Engineer Mario Garcia stated the Los Angeles County Department of Public Works (LACDPW) had asked WRD to send a letter of support to the Department of Water Resources for its AB 303 application for construction of a telemetry system at the Alamitos Seawater Barrier. Mr. Garcia stated, if successful, the grant would 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.

Staff recommended the Board authorize the General Manager to submit a letter of support to the LACDPW for its AB 303 application. The Committee concurred with staff's recommendation and requested the item be agendaized for Board approval.

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

Chief Hydrogeologist Ted Johnson stated, 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. Mr. Johnson noted the purpose of the meetings was to compile information and coordinate activities to best understand the threat of the shallow groundwater contamination to the deeper drinking water aquifers. The parties expressed the desire to enter into a Memorandum of Understanding (MOU) to document cooperation in sharing data and managing site investigations throughout the Central and West Coast Basins.

Mr. Johnson stated the MOU was originally written by District Counsel and has been under review by the various agencies for the past year and had received approval from all parties at this time. He also stated WRD will be submitting an AB 303 application to the State for grant funding, due December 2, 2004, to help finance a USGS study on the threat.

Discussion followed and the Committee recommended Board approval for the MOU with the above-stated government agencies for groundwater contamination investigations in the Central and West Coast Basins.

VI. GROUNDWATER QUALITY REGULATORY UPDATE

Senior Engineer Hoover Ng gave an update on chromium, arsenic, and perchlorate, contaminants of recent concern in groundwater. Mr. Ng stated the Department of Health Services (DHS) was required to adopt a new maximum contaminant level (MCL) for Chromium-6 by January 1, 2004. He informed the Committee Komex H2O Science, Inc. performed static spinner logging on Southern California Water Company's (SCWC) Hoffman Well which showed very high levels of Chromium-6. The data collected is being evaluated and a technical report is being prepared.

Mr. Ng stated the new MCL of 10 ppb for arsenic is required by January 23, 2006. The DHS indicated they would most likely recommend setting the MCL at 10 ppb since many smaller water systems may be adversely impacted by a much lower MCL.

Lastly, Mr. Ng stated the DHS is required to adopt a new MCL for perchlorate by January 1, 2004. The Office of Environmental Health Hazard Assessment (OEHHA) finalized the public health goal (PHG) at 6 ppb. Perchlorate in MWD's Colorado River water has been observed at 4-6 ppb but blended water in the Los Angeles area has been consistently below 4 ppb.

VII. GROUNDWATER CONTAMINATION UPDATE

Assistant Hydrogeologist Benny Chong presented overviews of two high-priority groundwater contamination sites within the District. The case files presented were Honeywell El Segundo Site and Thrift Oil Station #010 in the city of Montebello. Mr. Chong 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 taken on September 24, 2004 at Norwalk Well 8, owned by the City of Norwalk, confirmed earlier indications of Mercury in the well as well as a continued rise in 1,2- Dichloroethane. She added the California Department of Health Services (DHS) has subsequently determined the well be identified as an extremely impaired water source and would be subject to all parameters of the Policy Memo 97-005 Guidelines for Extremely Impaired sources. The DHS also required the City to implement an "early warning" system through the installation of monitoring wells less than one mile and upgradient from Well 8. Ms. King stated the additional costs may be too onerous for the City of Norwalk and would likely abandon the project at this time. She noted should the City decide to abandon the project, the treatment vessels may be transferred to another Safe Drinking Water project such as the City of Commerce Well 4L project.

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 were transported to the Converse site on October 21, 2004 and construction is scheduled for completion by December.

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 participation, which is expected to be approved by the Board at its next meeting.

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

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 212 acre-feet of potable water to the City of Torrance in October 2004. He stated that chloride levels remained within 1,030 to 1,080 mg/L with an average concentration of 1,061 mg/L.

Dr. Fu also stated annual quantity of water delivered to the City of Torrance was approximately 2,453 acre-feet for the period November 2003 through October 2004. He noted the Desalter was online for 93 percent of the past year.

X. ADJOURNMENT

There being no more business to come before the Committee, the meeting was adjourned at 12:34 p.m.

Chairperson

ATTEST:

Director

MEMORANDUM

ITEM NO. IV

Prepared by: Hoover Ng

Reviewed by: Ted Johnson

DATE: DECEMBER 7, 2004

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: DHS POLICY MEMO 97-005, GUIDANCE FOR DIRECT DOMESTIC USE OF EXTREMELY IMPAIRED SOURCES

SUMMARY

The State Department of Health Services (DHS) has always maintained that only the best quality sources of water that are reasonably available to a water utility should be used for drinking or domestic purposes. When contaminated water that requires treatment becomes a potential source of drinking water, it presents a higher risk and hazard to the public. Therefore, the DHS developed Policy Memo 97-005, Guidance for Direct Domestic Use of Extremely Impaired Sources, November 5, 1997 to provide more information on their policy, rationale and requirements. In discussing with DHS the potential of utilizing water from the I-105 freeway dewatering operation for Dominguez Gap Barrier injection, they indicated that some or all of the elements contained in this memo would be required.

Up to 12 steps may be required under this policy. These are:

1. Source water assessment
2. Full characterization of raw water quality
3. Source protection
4. Effective Monitoring and Treatment
5. Human Health Risks Associated with Failure of Proposed Treatment
6. Identification of alternatives to the use of the extremely impaired sources and compare the potential health risk associates with these to the project's potential health risk.
7. Completion of the California Environmental Quality Act (CEQA) review of the project.
8. Submittal of a permit application
9. Public Hearing
10. DHS Evaluation
11. Requirements for DHS approval
12. Issuance or denial of permit

More information on steps 1 – 7 will be provided to the committee.

The following local projects have been required to comply with this policy.

Agency	Location	Capacity	Contaminants	Treatment
La Puente Valley County Water District	San Gabriel Valley	2500 gpm	VOCs, Perchlorate, NDMA, Nitrate	Air stripper, ion exchange, UV
EPA – Whittier Narrows Operable Unit	Whittier Narrows	13,000 gpm	VOC	GAC
City of Downey	Downey	4500 gpm	VOCs, 1,4 dioxane	Reverse Osmosis or nanofiltration, air stripping, UV with H2O2
Charnock Well Field	Santa Monica		MtBE	
Castaic Lake Water Agency	Santa Clarita	2400 gpm	Perchlorate	Biological treatment and ion exchange

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. V

Prepared by: Nancy Matsumoto

Reviewed by: Ted Johnson

DATE: DECEMBER 7, 2004

TO: GROUNDWATER QUALITY COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: GROUNDWATER CONTAMINATION UPDATE

SUMMARY

As reported in previous updates, several major cleanup investigations are currently in progress at various sites in Santa Fe Springs. A Final Draft Memorandum of Understanding (MOU) was distributed at the group's September 16th meeting for review and signature between the stakeholders (WRD, EPA, USGS, RWQCB, DTSC, City of Santa Fe Springs). This MOU will formalize guidelines for these agencies to work cooperatively in sharing data and managing site monitoring/cleanup efforts. Since the September 16th meeting, the parties have agreed on the MOU, and it is being distributed for signature.

As reported previously, WRD has initiated a District-wide investigation to identify and prioritize WRD's level of effort in assisting regulatory agencies in overseeing monitoring and remediation of high-priority groundwater contamination sites across the District. WRD staff completed weekly visits to the DTSC and RWQCB offices, to review case files on their highest-priority groundwater contamination sites (as identified by DTSC and RWQCB personnel). Staff generated concise summaries of these case files. At the last Santa Fe Springs MOU group meeting on September 16th, the RWQCB stated that they had several additional sites they wanted WRD to review. Thus, WRD staff are continuing their case file reviews at RWQCB, as well as case file reviews at the local EPA repositories. 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 recently reviewed are attached as reference, and will be discussed at the Committee meeting.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.

Golden West Refining Company
Key Facts At A Glance
Last Update: 8/4/04

Location:	13116 Imperial Highway Santa Fe Springs, CA 90670 Central Basin Nearest active production well located ~3,341 feet southeast of site
Description:	The site was a former tank farm built in the 1930s. Golden West Refining Company purchased the refinery in 1983 and operated the facility through ~1997. Through early 2004, various soil and groundwater contamination investigations were performed on site. In mid-2004, hydrocarbon-impacted shallow soils across the site were excavated and removed. Deeper soil contamination is being addressed through two on-site SVE systems. Groundwater monitoring is being performed, and groundwater remediation via pump-and-treat or free-phase hydrocarbon extraction/manual bailing is being conducted. The site is currently being sold for commercial/industrial redevelopment, and will be 95% capped either with concrete buildings or pavement.
Chemicals Detected:	Petroleum hydrocarbons, including gasoline, diesel, VOCs
Extent:	Soil contamination remaining in vadose zone (~10 feet to 20 feet bgs) Free-phase and dissolved petroleum hydrocarbons in semi-perched groundwater and Artesia Aquifer Semi-perched groundwater is in the Bellflower Aquiclude, primarily extending southwest from the southern portion of site, ~20 to 50 feet bgs, southwesterly groundwater flow direction Artesia Aquifer is found throughout site, ~80 to 100 feet bgs, minor local mounding and lateral discontinuities, general northeasterly/easterly flow direction Some of the petroleum hydrocarbon plumes extend beyond the property boundary Previous sampling of Silverado Aquifer has shown that this deeper aquifer has not been impacted beneath the site
Monitoring:	As of June 2004, 130 monitoring wells in and around site (74 screened in semi-perched zone, 56 screened in Artesia Aquifer) Semiannual monitoring of water levels, free-phase hydrocarbon thicknesses and hydrocarbon concentrations is performed Deep industrial water supply wells were formerly used at the refinery, screened from ~1,000 feet to 1,250 feet bgs, in the Silverado Aquifer. Selected Silverado wells were sampled repeatedly as part of the Cleanup and Abatement Order from RWQCB. All deep wells have now been abandoned, under authorization from RWQCB.
Remediation:	Shallow contaminated soil excavated and removed (<10 feet bgs) Old equipment and piping removed Two SVE systems address deeper soil contamination Pump-and-treat system, free-phase hydrocarbon extraction system/manual bailing for groundwater contamination Also, data collected from 1980s through 2002 demonstrate that the dissolved hydrocarbon plume beneath the site is stabilized by biodegradation and natural attenuation, and that the free product plume is decreasing
Procedures:	Golden West Refining Company retains consultant (Environmental Audit Inc.) to assist with its site remediation and groundwater monitoring activities.
Stakeholders:	Golden West Refining Company, RWQCB

ARCO Whittier
Key Facts At A Glance
Last Update: 8/18/04

Location:	10802 Whittier Blvd Whittier, CA 90606 Located in the Central Basin Nearest active production well located ~0.5 miles northwest of site
Description:	<p>The site is an active retail gasoline station with 4 fuel dispensing islands, convenience store, self-serve car wash and auto repair shop located at the southeast corner of the intersection of Norwalk and Whittier Blvds in the City of Whittier. The adjacent properties to the north, west and east are retail/commercial sites. The adjacent property to the south is a residential apartment complex.</p> <p>Currently, there are four fuel island dispensers pumping from 3 active underground storage tanks (USTs): two 10,000-gallon and one 5,000-gallon gasoline tanks.</p> <p>The San Gabriel Spreading Grounds are located about 0.57 miles (3000 ft) to the east. The uppermost water bearing aquifer in this region is the Gaspar Aquifer which consists of recent alluvium.</p>
Chemicals of Concern in Groundwater:	Total Petroleum Hydrocarbons (TPHs): gasoline, BTEX (benzene, toluene, Ethylbenzene, xylenes) Gasoline additives/oxygenates: MTBE, ETBE, TAME
Extent:	Soil contamination, still being remediated The majority of the fuel released beneath site is in the vicinity of the former dispensers and one UST. Free product has been detected historically in all 3 monitoring wells. The highest reported concentrations of MTBE were collected from 2 soil borings downgradient of the dispensers at a depth of 30 and 40 ft below ground surface (bgs).
Monitoring:	<p>3 monitoring wells screened from 25 to 55 ft bgs are gauged and sampled every quarter. First monitoring event occurred in Jan 2002.</p> <p>Groundwater flows to the south-southeast at an approximate gradient of 0.0006 ft/ft (Mar 2004) Groundwater is under unconfined conditions and first depth to water ranges from 35 to 51 ft (bgs)</p>
Remediation:	Currently, no groundwater remediation activities are being conducted. In 2003, a draft work plan for additional site assessment and a soil vapor extraction pilot test was submitted to RWQCB.
Procedures:	ARCO retains their own consultant, Environmental Geoscience Services (Seal Beach, CA), to manage groundwater monitoring and reporting to RWQCB.
Stakeholders:	ARCO – property owner Regional Groundwater Quality Control Board (RWQCB) –lead regulatory agency City of Whittier City of Pico Rivera



MEMORANDUM

ITEM NO. VI

Prepared by: Charlene King

Reviewed by: Mario Garcia

DATE: DECEMBER 7, 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):** The California Department of Health Services (DHS) has recently determined that Well 8 will 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. District staff has been working with City staff to evaluate its options, but the City has determined that the costs to comply with DHS requirements for Well 8 are too burdensome. Consequently, the City has elected to seek out a new well site instead. Accordingly, the treatment vessels at the Well 8 site will be used for another SDWP project.
- 2) **Converse Well (SCWC):** Construction of this facility 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):** Bid documents are currently under revision to incorporate changes to WRD's procurement policy as it relates to Small Business Enterprise (SBE) participation. The policy was recently adopted at the November 17th board meeting.
- 4) **Imperial Wells 1, 2, & 3 (SCWC):** SCWC is currently re-bidding the project and has scheduled the public bid opening for December 15, 2004 at the SCWC office in Anaheim.

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

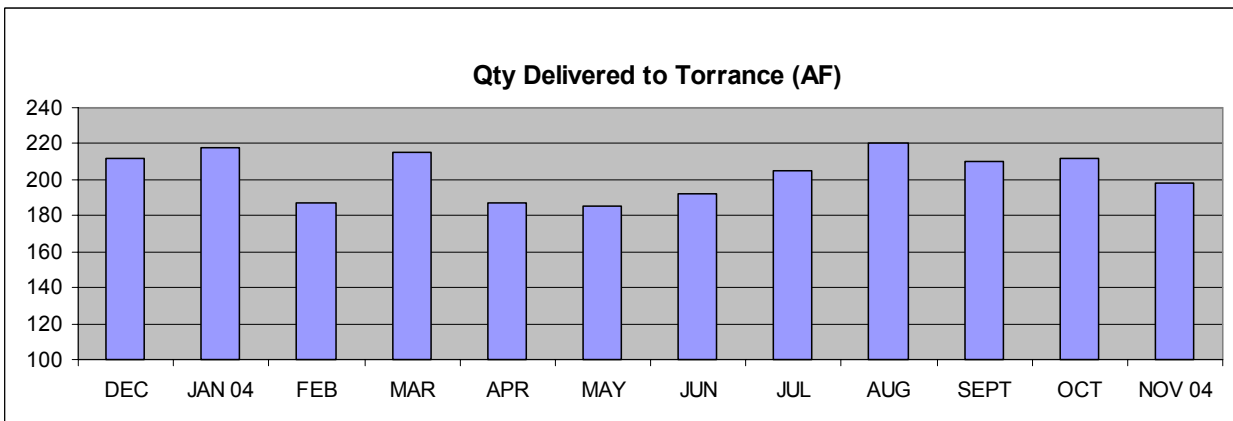
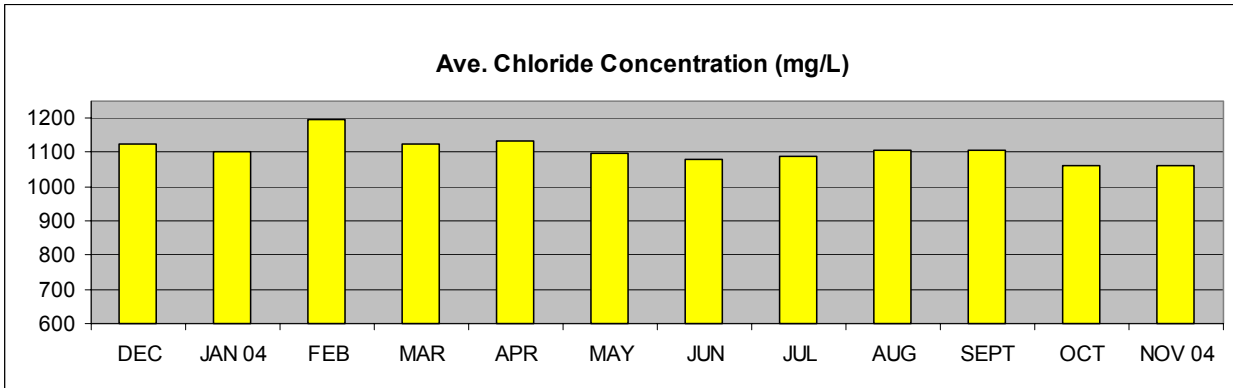
ITEM NO. VII

Prepared by: Paul Fu
Reviewed by: Mario Garcia

DATE: DECEMBER 7, 2004
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: ROBERT W. GOLDSWORTHY DESALTER UPDATE

SUMMARY

The Goldsworthy Desalter delivered approximately 198 acre-feet of potable water to the City of Torrance in November 2004. During the month, the chloride level in the well water remained within 1,050 to 1,070 mg/L (data available through 11/20/04) with an average concentration of 1,062 mg/L. The charts below summarize the monthly water deliveries to Torrance and average chloride concentrations from December 2003 through November 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 2,640 acre-feet. The Desalter was online (i.e., in production) for 92.5 percent of the past year.



FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.