

**SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CALIFORNIA 90712
12:00 P.M., THURSDAY, SEPTEMBER 2, 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. MINUTES OF THE MEETING OF JULY 7, 2010**
Staff Recommendation: Approve as submitted.
- 4. GROUNDWATER BASIN UPDATE**
Staff Recommendation: For information.
- 5. GROUNDWATER BASINS MASTER PLAN UPDATE**
Staff Recommendation: For information.
- 6. WATER RESEARCH FOUNDATION RENEWAL**
Staff Recommendation: Renew subscription with the Water Research Foundation in the amount of \$51,537 for the period October 2010 to September 2011.
- 7. GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP) UPDATE**
Staff Recommendation: For information.
- 8. DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF**
- 9. ADJOURNMENT**

Posted by Abigail C. Andom, Deputy Secretary, August 30, 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

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MINUTES

**MINUTES OF JULY 7, 2010
MEETING OF THE WATER RESOURCES COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

A meeting of the Water Resources Committee of the Water Replenishment District of Southern California was held on Wednesday, July 7, 2010, 12:26 p.m. at the District Office, 4040 Paramount Boulevard, Lakewood, California. Director Albert Robles called the meeting to order and presided thereafter. Administrative Specialist Sheryll A. Moffat recorded the minutes.

1. DETERMINATION OF A QUORUM

Attendees at the meeting were as follows:

Committee: Directors Albert Robles and Rob Katherman

Staff: Robb Whitaker, Jason Weeks, Nancy Matsumoto, Jim McDavid

2. PUBLIC COMMENT

None.

3. MINUTES OF THE MEETINGS OF MARCH 3, 2010, MARCH 16, 2010 AND MARCH 23, 2010

The minutes of March 3, March 16 and March 23, 2010 were approved as submitted.

4. GROUNDWATER BASIN UPDATE

Senior Hydrogeologist Nancy Matsumoto said that the precipitation as of June 23, 2010 has been 16.36 inches which is about 1.22 inches above normal.

Ms. Matsumoto said that over the previous four years, the groundwater levels had fallen over 40 feet to their lowest levels in 32 years due to the lower-than-normal precipitation and lack of imported replenishment water. However, due to a slightly than higher rainy season, the purchase of untreated Tier 1 water for spreading by WRD and recycled water spreading have caused water levels to rise over 30 feet, then drop slightly after imported water spreading orders were completed. She said the two main factors affecting groundwater levels are barrier injection and groundwater pumping.

Ms. Matsumoto said that in the West Coast Basin seasonal water level fluctuations in the confined aquifers are not as pronounced as in the Central Basin because recharge is relatively stable from the seawater barrier injection wells and because pumping is also relatively steady throughout the year. Long term seasonal trends do occur based on overall recharge and discharge amounts. In the Central Basin Key Well 1601 T the water levels generally rose between 1997 and 2006, leveled off between 2006 and 2008, declined in 2008 and then rebounded through the early part of 2010. She said that the amount of pumping in the Central Basin is currently 3.02% below the previous year and the West Coast Basins is currently 2.27% lower than the previous year.

She concluded by saying that WRD is forecasting total pumping for the Water Year at 240,200 AF based on current information and estimation.

5. UPDATE ON RFP FOR REPLENISHMENT WATER

Senior Engineer Jason Weeks said that one of the District's main functions is to replenish the Central and West Coast Basins to keep them usable as a local water supply for the adjudicated rights holders. Mr. Weeks stated that since the ability of the District to find replenishment water from traditional sources is becoming more challenging and more expensive, the Board approved the issuance of a Request for Proposals (RFP) for the purpose of replenishment water. He said that the RFP specified that it is up to the seller to get the water from Point A to Point B. He said that South San Joaquin Irrigation District gave the District a call in May with inquiries and to date we have heard nothing back from them.

Director Robles asked if anyone paid the "wheeling" rate for water. Mr. Whitaker said that staff would check with MET to see if anyone has exercised that.

Mr. Weeks said he also received a call from Harold Laya who is working with Ken Manning of the Chino Basin Watermaster to sell their water in an on-line auction. He is awaiting the details.

6. NO COST TIME EXTENSION WITH USGS FOR GROUNDWATER MODELING AND HYDROGEOLOGIC INVESTIGATIONS

The Committee concurred with the staff recommendation to enter into a no-cost time extension with the United States Geological Survey (USGS) to extend the term of the current modeling agreement to March 31, 2011.

7. GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP) UPDATE

General Manager Whitaker said that the Ad Hoc GRIP Committee met this past Monday and deferred to Director Robles to give an update. Director Robles said that that the meeting went very well and the Ad Hoc Committee mainly addressed Upper San Gabriel Valley's concerns with respect to the cost of the water as it relates to the Joint Powers Agreement (JPA). He said that Steve Maguin gave an excellent presentation and it was agreed by all present that the cost sharing agreement would be approved by all with the exact same language. It was also agreed that all agencies participating would have to approve the budget – one agency could not discontinue the JPA or veto the budget.

Mr. Whitaker said that staff had a briefing meeting yesterday with Bill Steele of the USBR to get him familiar with the details of the project and the agencies involved. He noted that the briefing went very well.

9. DIRECTORS REPORTS, INQUIRIES, AND REVIEW OF DIRECTIONS TO STAFF

Director Robles requested that the title of this agenda item be changed to "Directors Reports, Inquiries and *Follow Up* of Directions to Staff." He further requested that staff investigate well locations in the City of Carson.

Director Robles requested that staff include an annual tabulation of total imported water demand of the Central and West Coast Basins based on MWD member agency data. Staff indicated that this can be done at the end of each fiscal year. Director Robles asked staff to keep close track of the recycled water amount currently allowable for spreading the Montebello Forebay Spreading Grounds so WRD can maximize the 5-year permitted percentage without exceeding it.

10. ADJOURNMENT

With no further business for the Committee, the meeting was adjourned. The next meeting is scheduled Wednesday, August 4, at 12:00 p.m.

Chair

ATTEST:

Member



MEMORANDUM

ITEM NO. 4

Prepared by: Ted Johnson
Reviewed by: Nancy Matsumoto
Approved by: Robb Whitaker

DATE: SEPTEMBER 2, 2010
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: GROUNDWATER BASIN UPDATE

SUMMARY

Staff monitors groundwater conditions in the Central and West Coast Basins throughout the year. A summary of current conditions is presented below.

Precipitation:

The Los Angeles Times daily weather almanac reports that precipitation in downtown Los Angeles from July 1, 2010 to August 24, 2010 has been 0.00 inches. The normal amount for this time period is 0.07 inches.

Replenishment:

WRD is responsible for replenishing the Central and West Coast groundwater basins and works cooperatively with the Los Angeles County Flood Control District (LACFCD), who owns and operates the recharge facilities, to accomplish this mission. The recharge facilities include the Rio Hondo and San Gabriel Coastal Spreading Grounds in the Montebello Forebay and the three seawater intrusion barrier systems along the coast, including the West Coast Barrier (WCB), the Dominguez Gap Barrier (DGB) and the Alamitos Barrier (AB).

WRD purchases recycled and imported waters for recharge at these facilities. LACFCD captures local water (stormwater runoff and dry weather river base flow) for spreading. A summary of replenishment amounts for the current Water Year (October 1, 2009 – September 30, 2010) is shown on the table below.

Water Year 2009-2010 (Oct. 1 - Sep. 30)	Planned for the Year (AF)	Amount to Date (AF)	Through End of	Projected for WY0910 (AF)
Spreading, Imported	21,000	26,286	July	26,286 ³
Spreading, Recycled ¹	50,000	41,741	June	50,000
Spreading, Local	54,000	40,263	June	54,000
West Coast Injection, Imported	3,800	6,265	June	7,920
West Coast Injection, Recycled	11,400	6,192	June	8,056

Dominguez Injection, Imported	4,000	4,312	June	5,904
Dominguez Injection, Recycled	4,000	1,509	July	1,847
Alamitos Injection, Imported ²	2,100	2,038	June	2,755
Alamitos Injection, Recycled ²	2,100	1,314	June	2,053
TOTAL	152,400	129,920	--	158,821

¹ Recycled includes purchased water from Whittier Narrows & San Jose Creek Plants and incidental recharge from Pomona Plant.

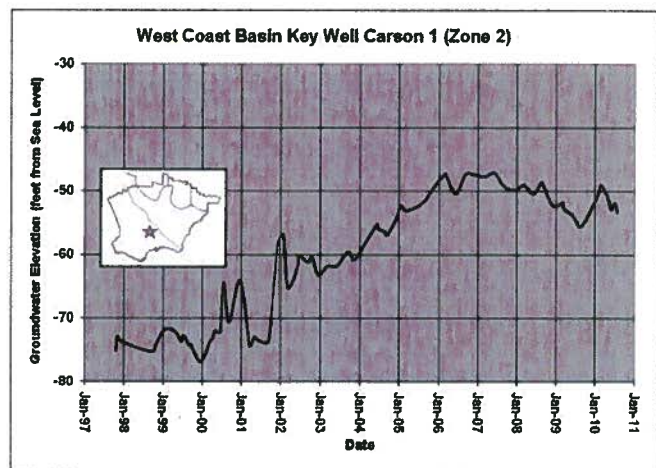
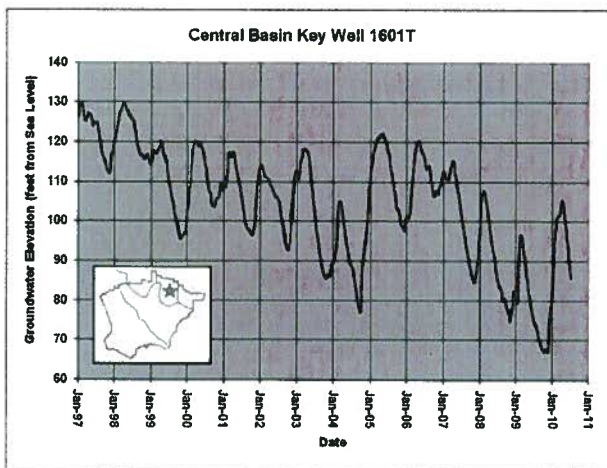
² Alamitos Barrier water purchased by WRD for L.A. County side of barrier. Does not include Orange County purchases.

³ 21,000 AF purchased as planned for WY0910. Additional purchase of 5,286 AF helps offset imported deficit of 29,987 AF, leaving 24,701 AF remaining on imported water deficit (water unable to be purchased over past 3 years).

Groundwater Levels:

Groundwater levels in Central and West Coast Basin key wells are shown below. In the Central Basin, Key Well 1601T reflects water levels in the unconfined aquifer rising and falling sharply in direct response to recharge and discharge events. Winter and spring rainfall resulting in large amounts of stormwater capture and spreading, plus a reduction in pumping cause water levels to rise. Summer and autumn seasons, however, have increased pumping due to the hot weather and a lack of precipitation, resulting in sharp water level drops.

By October 2009, water levels in this well had fallen to their 32-year low due to successive dry years and lack of imported replenishment water for spreading. However, an above-average rainy season in 2009/10, aggressive spreading of recycled water, and the purchase of untreated Tier 1 water for spreading by WRD have caused water levels to temporarily rebound over 30 feet by April 2010. Since that time, water levels have been falling at a rate of about 1.4 feet per week.



In the West Coast Basin, Key Well Carson 1 (Zone 2) shows water level fluctuations in the confined aquifer. Water levels generally rose between 1997 and 2006, leveled off between 2006 and 2008, declined in 2009, then rebounded through the early part of 2010 but are now falling. Water levels in this basin are controlled predominantly by seawater barrier injection and pumping extractions.

Pumping:

The amount of pumping in the District in the current Water Year versus the previous Water Year is shown on the table below. The Central Basin is currently 1% below the previous year and the West Coast Basin is currently 2.7% lower than the previous year. WRD is forecasting total pumping for the Water Year at 240,200 AF based on current information.

Basin	October – June		Difference (AF)	Difference (%)	Total Planned for Water Year
	Current WY (AF)	Previous WY (AF)			
Central	142,357	143,841	-1,484	-1.0	201,500
West Coast	32,286	33,194	-907	-2.7	38,700
TOTAL	174,644	177,035	-2,391	-1.4	240,200

FISCAL IMPACT

For information.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 5

Prepared by: Jason Weeks

Reviewed by: Ted Johnson

Approved by: Robb Whitaker

DATE: SEPTEMBER 2, 2010
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: GROUNDWATER BASINS MASTER PLAN UPDATE

SUMMARY

District staff and its consultants, CH2MHILL and RMC Water and Environment, are continuing work on the development of a Groundwater Basins Master Plan for the West Coast and Central Basins (Plan).

Phase 1 of the Plan consists of review and refinement of goals and objectives based on input from water rights holders and basin stakeholders, interviews with water rights holders and basin stakeholders to develop projected baseline conditions for future operations of the basins, and the development of conceptual alternative management scenarios for future basin operations to reduce reliance on imported water. District staff and consultants have completed interviews with all major water rights holders in the West Coast Basin that serve residential customers and all major industrial water rights holders, which consist of refineries. This information is currently being summarized in a Technical Memorandum.

Interviews with Central Basin water rights holders and stakeholders are expected to begin in the coming weeks.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 6

Prepared by: Ted Johnson
Reviewed by: Phuong Ly
Approved by: Robb Whitaker

DATE: SEPTEMBER 2, 2010
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: WATER RESEARCH FOUNDATION RENEWAL

SUMMARY

The Water Research Foundation (WRF or Foundation), formerly the American Water Works Association Research Foundation (AwwaRF), sponsors applied research for all aspects of the drinking water industry, including water resources, supply, quality, and distribution. Much of this research has had direct applicability to WRD's projects and programs as discussed in more detail below. Membership affords WRD and local purveyors' access to and participation in state-of-the-art research developments in the water industry, and also maximizes leverage of pooling resources for mutually beneficial projects and investigations. WRD as a member is also able to submit proposals for new research ideas for consideration by the Foundation.

In recent years, the Foundation has conducted or sponsored research of particular relevance to WRD and our purveyors, including:

- *Soil aquifer treatment (SAT) of recycled water used for groundwater recharge;*
- *Emerging contaminants, including pharmaceuticals, endocrine disruptors, and personal care products – occurrence, toxicological impacts, analytical methods, and methods of treatment and control;*
- *Climate change and impacts to water supply and water quality;*
- *Carbon sequestration in geologic structures;*
- *Tracking the movement of contaminants;*
- *Groundwater contamination occurrence and treatment – arsenic, chromium, and perchlorate;*
- *Desalination;*
- *Iron and manganese treatment;*
- *Evaluation of membrane technologies;*
- *Disinfection byproducts (DBP's);*
- *Distribution system water quality; and*
- *Enhanced communication on drinking water issues.*

Being a member of the Foundation also allows an opportunity to sit on prestigious Project Advisory Committee (PAC) panels, which provide technical review and guidance on the Foundations's research projects. Recently, WRD staff has and is currently sitting on PAC panels related to Groundwater Recharge Facilities, Carbon Sequestration, and Vadose Zone recharge wells. Sitting on the PAC panel affords the opportunity to guide the research project to areas directly related to WRD's activities.

Research is funded through subscriber membership fees which are typically based on the annual amount of water delivered or served to customers. WRD has been a subscriber since 1992. Other subscribers from the local area include the Central and West Basin Municipal Water Districts, Golden

State Water Company, the Los Angeles Department of Water and Power, Long Beach Water Department and the Metropolitan Water District of Southern California.

The subscription renewal letter from Water Research Foundation, which provides additional details of member benefits, is attached to this staff report.

FISCAL IMPACT

For the subscription period of October 2010 to September 2011, the membership fees are \$51,537, which is the same price as the previous year. Fees did not go up for 2010-2011. This amount has been included in the current year 2010-11 budget under Project 006.

STAFF RECOMMENDATION

Renew subscription with the Water Research Foundation in the amount of \$51,537 for the period October 2010 to September 2011.



Roy L. Wolfe, Chair
Denise Kruger, Vice-Chair
Charles M. Murray, Treasurer
Robert C. Renner, Executive Director

August 6, 2010

Robb Whitaker P.E.
General Manager
Water Replenishment District of So. California
4040 Paramount Blvd.
Lakewood, CA 90712

Dear Mr. Whitaker:

The Water Research Foundation is grateful for your continued financial support of the research that has been identified by the water supply community as essential to increasing operational efficiency, advancing treatment technologies, and enabling the provision of better service to the customer. As a subscriber, your organization can benefit from the results of our published reports; by pooling research dollars the Foundation provides the research that advances science across the community.

Given current economic conditions, the Research Foundation is more relevant now than ever as it provides a true and proven model for organized collaboration and can reduce overall costs for the individual subscriber.

As a Foundation subscriber:

- You will be kept informed with complimentary research reports, periodicals, regional technology transfer conferences/workshops, and online seminars/webcasts.
- You can influence and participate in the research agenda.
- You can fine-tune your own research efforts to avoid duplication or build off of Foundation results.

We encourage you to continue and even increase your use of the benefits available to Foundation subscribers. Your organization will receive the most return on its investment by actively participating in our programs, by tapping the wealth of information from the Water Research Foundation, and by applying the Foundation's research findings which can save you substantial costs in treatment, distribution, monitoring, resources and management.

The Water Research Foundation exists to serve our subscribers; with your help the Foundation strives to provide the solutions required to keep our water safe and affordable.

We recognize that 2009 was a challenging year for our subscribers, which has led to our Board's decision to waive a rate increase for 2010. Enclosed is your 2010 subscription invoice and worksheet for the Drinking Water Research Program. We strongly encourage you to fill out the worksheet to show actual water delivery numbers rather than use the estimated invoice amount.

If you have any questions about your subscription, please contact Rick Karlin, Director of Subscriber Services at 303-347-6104 or rkarlin@WaterResearchFoundation.org.

Sincerely yours,

Richard J. Karlin, P.E., D.E.E.
Director of Partnerships/Subscriber Services

cc: Hoover H Ng P.E.

6666 West Quincy Avenue
Denver, CO 80235-3098 USA
P 303.347.6100
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2010 INVOICE

Invoice Number RF2010-0006294	Date August 6, 2010
Subscriber Number 0006294	Foundation Tax ID 13-6211384
Subscriber Since 10/01/92	Due Date Net 30 Days

Water Replenishment District of So. California
ATTN: Robb Whitaker P.E., General Manager
4040 Paramount Blvd.
Lakewood, CA 90712

ITEM NO.	DESCRIPTION	ESTIMATED AMOUNT
RF2010	October 2010 through September 2011 Subscription to the Water Research Foundation Program	\$51,537.00
Pay this amount:		\$51,537.00
<i>You may request a revised invoice if your worksheet amount differs.</i>		



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pschrader@WaterResearchFoundation.org

Detach and return with payment and completed worksheet in the enclosed envelope

Please make check payable to: Water Research Foundation

Invoice Number RF2010-0006294	Date August 6, 2010
Subscriber Number 0006294	Due Date Net 30 Days

ITEM NO. RF2010	DESCRIPTION Subscription to the Water Research Foundation Program	AMOUNT DUE \$51,537.00
REVISED INVOICE REQUESTED		AMOUNT ENCLOSED
<input type="checkbox"/> Yes <input type="checkbox"/> No		

Water Replenishment District of So. California
ATTN: Robb Whitaker P.E., General Manager
4040 Paramount Blvd.
Lakewood, CA 90712



MEMORANDUM

ITEM NO. 7

Prepared by: Jim McDavid

Reviewed by: Ted Johnson

Approved by: Robb Whitaker

DATE: SEPTEMBER 2, 2010

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

**SUBJECT: GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP)
UPDATE**

SUMMARY

The GRIP partnership, made up of the WRD, Upper San Gabriel Valley Municipal Water District (USGVMWD) and Los Angeles County Sanitation Districts (LACSD), continues to move forward with developing a program that would replace imported replenishment water with a locally sustainable supply (i.e. advanced treated reclaimed water). Staff will provide a verbal report of progress made over the last month.

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

For information.