

**A 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., WEDNESDAY, MAY 14, 2008**

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 MEETINGS OF JANUARY 28, 2008 AND FEBRUARY 14, 2008**
Staff Recommendation: Approve the minutes as submitted.
- 4. GROUNDWATER BASIN UPDATE**
Staff Recommendation: For information.
- 5. WEST COAST BASIN OPERATING PLAN STUDY UPDATE**
Staff Recommendation: For information.
- 6. DIRECTORS REPORTS, INQUIRIES, REVIEW OF DIRECTIONS TO STAFF**
- 7. ADJOURNMENT**

Posted by Abigail C. Andom, Deputy Secretary, May 9, 2008.

UNAPPROVED
MINUTES

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**MINUTES OF JANUARY 28, 2008
SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

A special meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on January 28, 2008, 9:09 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California. Director Rob Katherman called the meeting to order and presided thereafter. Administrative Specialist Sheryll Petty recorded the minutes.

1. DETERMINATION OF A QUORUM

Attendees at the meeting were as follows:

Committee: Directors Robert Katherman and Lillian Kawasaki
Staff: Robb Whitaker, Ted Johnson, Bob Siemak, Jason Weeks,
Abbie Andom

2. PUBLIC COMMENT

Mr. Harvey de la Torre of West Basin Municipal Water District (WBMWD) announced his departure from the WBMWD as of February 8, 2008. He will assume a new position at Municipal Water District of Orange County (MWDOC) on February 25, 2008. He will function as MWDOC's liaison to MET.

3. CENTRAL BASIN GROUNDWATER CONTAMINATION STUDY

Chief Hydrogeologist Ted Johnson said that this item has been reviewed by the Groundwater Quality Committee but is being brought to the Water Resources Committee at the request of Director Katherman as an informational item.

Mr. Johnson said that staff formed a group called the Central and West Basin Groundwater Contamination Forum which meets every four months. In addition to the District, the agencies that participate are the California Department of Toxic Substances (DTSC), the U.S. Environmental Protection Agency (USEPA), the Los Angeles Regional Water Quality Control Board (LARWQCB), the State Department of Public Health (CDPH), and the City of Santa Fe Springs. He said that the forum is seeking funding from the Department of Water Resources under AB303 to help do a \$396,000 survey to investigate and try to identify where the leaks might be from the shallow aquifers. He said that staff has come up with a detailed scope of work to look at this type of a problem. He said that staff is looking for the maximum grant amount which is \$250,000 and the remainder would be covered by in-kind salary provided by the USGS and \$90,400 would be provided by the District. He concluded stating that staff expects a decision on the grant by this spring. Director Kawasaki stated that this project should be a regional priority. General Manager Whitaker stated that Congresswoman Grace Napolitano's chief of staff is interested in helping the District get the funding to do the study.

The agenda items were taken out of order.

6. IMPACT OF PROPOSED MWD RATE INCREASES AND WATER SUPPLY ALLOCATION PLAN ON WRD

Mr. Whitaker stated that the rate increase portion of this item was previously discussed in the Finance Committee meeting that was held prior to this meeting. He asked Mr. de la Torre to give an overview. Mr. de la Torre said that the MWD staff has been working cooperatively with the member agencies to develop a formula and implementation plan to allocate supplies to the member agencies in case of shortage. He said that if the allocation plan were to be implemented this year it would be announced in the next few months, however, he stated that given current water supplies it appears implementation is unlikely this year. He further stated that in the coming months WBMWD would be working with its member agencies to determine the impact of the allocation plan on them. Director Kawasaki said that the District should sponsor an outreach program to educate the retailers as to the impact the MWD rate increase would have on the district's replenishment assessment. This item will be included on the next meeting agenda for another update and discussion.

9. WEST BASIN MUNICIPAL WATER DISTRICT PHASE V EXPANSION FEASIBILITY STUDY FUNDING ASSISTANCE

Director Katherman said that this item was taken up in the West Basin Ad Hoc Committee and that committee is recommending approval. He said that the District is proposing to become an active partner with West Basin Municipal Water District in doing the Phase V recycling plan. He said that Chevron is contributing their pro rata share leaving about \$55,000 for the district to contribute to the study. Mr. Whitaker said that the study is already underway and it is his understanding that a draft will be out by the end of February. He said that the purpose of the study is to identify all of the capital facilities necessary to go into the final phase and what water sources are available for treatment to supply that final phase both for WRD and for the refineries. He said that WRD is looking at being a partner in the final phase. Director Kawasaki said this would decrease the district's reliance on imported water. The committee recommends entering into a Memorandum of Understanding with the West Basin Municipal Water District, subject to approval of form by District Counsel, to participate in the Phase V Expansion Feasibility Study for an amount not to exceed \$55,300.

4. CONSIDERATION OF RESOLUTION NO. 08- 814 - A RESOLUTION OF THE BOARD OF DIRECTORS OF THE WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA ORDERING AN ENGINEERING SURVEY AND REPORT REGARDING THE GROUNDWATER SUPPLIES OF THE DISTRICT PURSUANT TO WATER CODE §60300

Mr. Johnson said that staff is currently beginning the process to determine the replenishment assessment for 2008. He said that in conjunction with this staff is asking approval of Resolution 08-814 ordering an engineering survey and report

regarding the groundwater supplies of the district pursuant to Water Code §60300. The committee moved to adopt Resolution No. 08-814.

5 CONTINUATION OF COOPERATIVE GROUNDWATER MODELING AND GEOHYDROLOGIC RESEARCH EFFORT OF THE CENTRAL AND WEST COAST BASINS WITH THE U.S. GEOLOGICAL SURVEY

Mr. Johnson said that the Board approved a 3-year cooperative modeling and geohydrologic research effort with the U.S. Geological Survey (USGS) to significantly improve the understanding of groundwater conditions in the Central and West Coast basins. He said the effort is to be reviewed by the Board and funded on an annual basis. He gave a brief summary of the program. The committee recommends entering into an agreement with the USGS subject to approval of form by District Counsel, for modeling and geohydrologic research efforts of the Central and West Coast Basins for an amount not to exceed \$185,000.

Director Katherman said that he would like the district to have an intern program and noted that an intern may be able to assist staff with this particular project, and also have the opportunity to work with the USGS. Mr. Johnson said that this would be very appropriate for an intern's assistance. Staff will present an overview of a technical intern program for the committee at their next meeting.

7. CHANDLER QUARRY RECHARGE PROJECT - UPDATE

Mr. Johnson said that staff performed extensive research and testing of the facility between 1997 and 2000 and it was determined then that the remaining unfilled pit of the former sand and gravel quarry could be developed into a significant groundwater recharge facility to help replenish the West Coast Basin. He said that the plan did not go forward because the Chandlers wouldn't agree to let the district have access to the property for the recharge project after completing the proposed multi-year and expensive demonstration project. He said that now the landfill is filled up and the Chandler people have finalized their design to make a golf course out of it. He said that January 31st they are opening a hearing for the public to make their comments at a public scoping meeting. Mr. Johnson said that they have planned for 2 lakes on the golf course and staff spoke with them regarding leaving the lakes unlined so that they could be used for groundwater recharge. Mr. Whitaker stated that they want the district to indemnify them and this is almost prohibitive. Director Katherman felt that staff should continue conversations on a low level and might want to make comments on the EIR. He feels staff should encourage the use of run-off or recycled water for the golf course.

8. NEW PROGRAM CONCEPT FOR WELL REPAIR AND MAINTENANCE

Mr. Whitaker said that President Katherman asked staff to discuss this item. This approach has been discussed in the past and it comes back to a policy issue, i.e., is the District a reactive replenishment agency or the basin manager. He said that if the answer is that the district is a basin manager then the district should be concerned about the utilization of the basin. He said that staff has seen drastic large pumping rights left on the table particularly so in the West

Coast Basin over the past five years. He said that if it is the district's intent that that water resource can be utilized then we should look at why is it that the pumping has gone down. He said that to some degree it is because of water quality issues but staff has also found that it is also due to some pumpers having problems with their wells, problems with their operating systems and infrastructure and also personnel changes with staff who do not have experience with groundwater and it is easier to buy imported water. Staff did a sampling and heard quite a cross section of reasons but it was interesting to hear from some that it is a hassle to use groundwater; they don't like to use their wells or redevelop their wells. He said that staff feels that people are losing sight of the value of groundwater. He said that it is too easy to order imported water and he feels that the first step is to review the sampling we did and look at it region wide and develop a matrix that shows what pumpers have stopped pumping over the last few years and reach out to them specifically making sure they understand that groundwater is about one third the cost of imported water even when you take into account the cost to operate a well. He concluded stating that staff needs to do an outreach program with these pumpers to see if they understand what they are missing out on in terms of water supply and the cost savings and the reliability savings. He said that staff also feels they could convene workshops and look at some issues that are common to pumpers such as discharge permits, etc. and educate them. He suggested that the district could extend 10-year no-interest loans to either construct a well or rehab one. The committee agreed that staff should survey the reasons for the reduced pumping and educate the pumpers on the economics of redeveloping a well versus the cost of purchasing imported water.

10. DIRECTORS REPORTS, INQUIRIES, REVIEW OF DIRECTIONS TO STAFF

Director Kawasaki asked what role and how can the WRD really encourage the increase of stormwater capture. This will be on next month's agenda.

11. ADJOURNMENT

With no further business for the Committee, the meeting was adjourned at 10:57 a.m.

Chairperson

ATTEST:

Director

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**MINUTES OF FEBRUARY 14, 2008
MEETING OF THE WATER RESOURCES COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

A special meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on February 14, 2008, 10:25 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California. Director Rob Katherman called the meeting to order and presided thereafter. Deputy Secretary Abigail C. Andom recorded the minutes.

1. DETERMINATION OF A QUORUM

Attendees at the meeting were as follows:

Committee: Directors Robert Katherman and Lillian Kawasaki
Staff: Robb Whitaker, Ted Johnson, Tony Kirk,
Nancy Matsumoto, Jason Weeks

2. PUBLIC COMMENT

None.

3. MINUTES OF THE MEETING OF NOVEMBER 9, 2007

The minutes were approved as submitted.

**4. REGIONAL GROUNDWATER MONITORING REPORT –
WATER YEAR 2006-2007**

Hydrogeologist Tony Kirk stated that staff is in the final stages of finishing the 2006-2007 Regional Groundwater Monitoring Report which describes the groundwater levels, groundwater quality and replenishment water quality for the Central and West Coast basins for the previous water year. Mr. Kirk explained that the purpose of the Regional Groundwater Monitoring Program is to perform the basic District function of tracking groundwater levels and groundwater quality. Information gathered would assist staff in basin management, planning, contamination prevention/mitigation, assisting pumpers, and providing public information and education. Among the highlights of the Report included: the Groundwater Monitoring Program added over 50,000 new data points to WRD's database, significantly increasing basin knowledge; nearly 60,000 acre-feet were lost from storage resulting in decreasing water levels over most of the District; overall groundwater quality is excellent with localized exceptions that WRD will continue to monitor closely (such as TDS, VOCs and arsenic). Mr. Kirk stated that activities for 2008-2009 include construction of four new monitoring wells (two in the Central Basin and two in the West Coast Basin); continue to collect water levels and water quality samples to monitor, track, and detect trends in the groundwater conditions in the basins; and use the data collected as the backbone for other District programs, such as contamination prevention, basin

management, modeling, saline plume policy, recycled water tracking, groundwater storage, and Water Independence Network (WIN).

The Committee thanked Mr. Kirk for his report and recommended the Board receive and file the 2006-2007 Regional Groundwater Monitoring Report.

5. MWD WATER SUPPLY ALLOCATION PLAN

Fernando Paludi of West Basin Municipal Water District (WBMWD) provided an update on the MWD Water Supply Allocation Plan for consideration by the MWD Board. Mr. Paludi informed the Committee that WBMWD will be implementing a plan of its own for its customers and future workshops will be scheduled in the coming months.

6. WRD DROUGHT PLAN

Defer to next month's meeting.

7. STORMWATER CONSERVATION ROLE

Defer to next month's meeting.

8. ENGINEERING SURVEY AND REPORT (ESR) UPDATE

Chief Hydrogeologist Ted Johnson stated that staff is on schedule to meet the Water Code deadlines for this year's Engineering Survey and Report (ESR) and replenishment assessment process. Mr. Johnson explained that the information contained in the ESR combined with the upcoming budget forecast provides the Board with the necessary information to determine the replenishment assessment. He noted that one of the main impacts on water rates this year would be the price of imported water from MWD, who is considering either 10% increase, 15% increase, or 20% increase which will translate to a direct impact on WRD's rates between 4% and 8%.

9. STUDENT INTERNSHIP PROGRAM

The Committee referred the item to the Administrative Committee.

10. DIRECTORS REPORTS, INQUIRIES, REVIEW OF DIRECTIONS TO STAFF

Director Kawasaki asked staff to provide a report on a District salt management plan. Director Katherman asked staff to look into approval to increase recycled water for spreading in case of an emergency and a plan to cut off significant pumping from the refineries during an emergency. He also requested that a press release be issued regarding completion of the 2006-07 Regional Groundwater Monitoring Report.

11. ADJOURNMENT

With no further business for the Committee, the meeting was adjourned at 11:45 a.m.

Chairperson

ATTEST:

Director



MEMORANDUM

ITEM NO. 4

Prepared by: Ted Johnson

Reviewed by: Nancy Matsumoto

Approved by: Robb Whitaker

DATE: MAY 14, 2008
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: GROUNDWATER BASIN UPDATE

SUMMARY

Staff monitors the conditions that affect the groundwater resources of the Central and West Coast Basins (CWCB) continually throughout the year. A summary of this information for the current Water Year effective October 1, 2007 is presented below and will be discussed in more detail at the Committee meeting.

Replenishment Activities:

The District performs replenishment activities to help make up the groundwater pumping deficit that occurs in the CWCB. The Los Angeles County Department of Public Works (LACDPW) captures natural replenishment from dry weather runoff and storm water flows at the Montebello Forebay Spreading Grounds, and adds to this supplemental imported and recycled waters purchased by WRD. Along the coast, the LACDPW injects imported and recycled waters purchased by WRD into seawater barrier wells to halt intrusion. This injected water moves inland to replenish the CWCB.

The spreading grounds replenishment numbers available from the LACDPW from October 2007 – January 2008 are as follows (in acre feet, af):

- Local: 54,000 planned, 36,517 actual
- Imported: 21,000 planned; 0 actual
- Recycled: 50,000 planned; 14,742 actual

Local numbers will be lower than planned due to a drier than normal winter. However, negotiations are currently being made with LACDPW to receive up to 20,000 af of additional local water this summer from reservoir releases in San Gabriel Canyon. If successful, this will provide a significant addition to the groundwater resources of the District and will help mitigate the negative impacts of imported water shutoffs and growing recycled water percentages. Imported water continues to be cut off by MWD due to water shortages in Northern California and the Colorado River. Recycled water numbers are expected to arrive near planned by the end of the Water Year.

The seawater barrier injection well numbers available from the LACDPW from October 2007 – February 2008 are as follows (in acre feet, af):

- Imported: 11,050 planned; 4,520 actual
- Recycled: 16,850 planned; 5,342 actual

It is expected that annual barrier water numbers will be lower than planned primarily due to slower than anticipated ramp-up of water from the new wells at the Dominguez Gap Barrier. This has been adjusted in the FY08/09 projected numbers.

Precipitation Amounts:

The Los Angeles County Department of Public Works reported 11.0 inches of rain for the water year at Station 716 - Los Angeles Ducommun Street through May 7, 2008. The normal amount for the year is 15.44 inches. Since the season is effectively over, this can be taken as close to final numbers. Therefore, barring late spring or summer rains, the year will be 71% of normal precipitation.

Groundwater Levels:

Groundwater levels rise and fall based on how much water is entering (inflows) versus leaving (outflows) the basins. If inflows match outflows, then water levels remain relatively constant. Water level fluctuations occur differently through the District due to differences in hydrogeology, confining layers, pumping patterns, and recharge locations. Staff tracks the changing water levels throughout the District using the network of monitoring and production wells.

In the Montebello Forebay, Key Well 1601T is currently showing a water level that is 13 feet lower than the same time last year. This relatively large decline is due to a combination of factors, including the drier than normal year, lack of imported water for recharge, and an increase in pumping. The groundwater basin will continue to act as a draining reservoir until significant replenishment waters can be added back to the basins. The potential for 20,000 af of San Gabriel Canyon water this summer as discussed above will greatly benefit the basins. Unspent replenishment monies from the current year will be carried over into the ensuing year to purchase imported water if it becomes available.

Pumping:

The amount of pumping in the District through March (in acre feet) is as follows:

- Central Basin: 99,351 (previous year 83,002)
- West Coast Basin: 17,838 (previous year 17,547)
- Total Pumping: 117,189 (previous year 100,549)

To date, total pumping is up 16%. Details of the pumping numbers will be provided at the Committee meeting.

FISCAL IMPACT

For information.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 5

Prepared by: Jason Weeks

Reviewed by: Bob Siemak

Approved by: Robb Whitaker

DATE: MAY 14, 2008

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: WEST COAST BASIN OPERATING PLAN STUDY UPDATE

SUMMARY

As part of development for its 2004 Capital Improvement Program (CIP), WRD proposed a number of projects in the West Coast Basin. The proposed projects included expansion of desalter facilities, inland Aquifer Storage and Recovery (ASR) wells, use of horizontal wells to extract brackish groundwater from the basin as source water to the Goldsworthy Desalter, and development of a brine line for disposal of brine from desalter facilities. These projects were developed on the basis of the current operational model for the West Coast Basin; that is, groundwater levels would remain depressed in the interior of the basin, with flow provided from the Central Basin and injection in the West Coast Basin Barrier and Dominguez Gap Barrier Projects.

At the time, there had been much speculation and discussion about the potential economic benefits of operating the basin differently from the current operational model, including elimination of the injection barriers all together. In addition, the injection barriers were, and still are, in need of substantial infrastructure improvements, including extensive injection well replacement. WRD staff and TAC members agreed that it was an appropriate time to revisit the operational objectives of the West Coast Basin to assess if there was a more economical approach to operating the basin. As a result, in November 2004, WRD retained CH2M HILL to evaluate operational scenarios that could potentially reduce the overall cost of water in the West Coast and Central Basins.

CH2M HILL, District staff and the TAC reviewed the current operations of the West Coast and Central Basin. Five operational concepts for the West Coast Basin were developed that were designed to explore a wide range of operational concepts and the potential to provide more economical utilization of imported and local water resources, while protecting the Basin from seawater intrusion and the spread of contamination. The five operational scenarios included:

1. Reduce flow to injection barriers through in-lieu operations to increase groundwater levels in the basin and reduce/eliminate firm water purchases for the injection barriers
2. Conduct ASR operations within the West Coast Basin
3. Conduct conjunctive use operations with Central Basin

4. Develop desalters in conjunction with injection to form a barrier at the Coast and reduce firm injection purchase requirements
5. Develop a Metropolitan water banking program

These alternative operational scenarios were evaluated using the District's Regional Groundwater Model to assess their impact on basin operations. Additionally, the economic impact of each scenario was evaluated.

Results of the study indicated that the greatest potential for reducing operating costs in the West Coast Basin was to reduce the reliance demands on the West Coast Basin and Dominguez Gap Barriers and shifting oil companies' water supplies to recycled water. The reduced reliance on the barriers in this scenario was achieved by providing an initial build-up of 150,000 AF of storage in the basin through injection and in-lieu recharge, which had the effect of increasing water levels, thereby reducing injection demands. The shift from groundwater to imported water by the refineries further reduced barrier demands by eliminating a substantial quantity of groundwater production in the immediate vicinity of the barrier.

These study results were reviewed and evaluated at numerous TAC and Water Resources Committee meetings throughout 2005 and 2006. A comprehensive overview of the draft final study was presented to the entire Board of Directors by CH2MHILL on November 15, 2006. After the presentation of the report to the Board, the draft report was finalized.

District staff will provide the Committee with an overview of the study and its findings.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.