

**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, JANUARY 7, 2009**

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, PAYMNET 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 SPECIAL MEETING OF NOVEMBER 14, 2008**
Staff Recommendation: Approve the minutes as submitted.
- 4. BASIN OPERATIONAL PLAN**
Staff Recommendation: For information.
- 5. LOS ANGELES FOREBAY GROUNDWATER RECHARGE UPDATE**
Staff Recommendation: For information.
- 6. NATIONAL GEOGRAPHIC'S "DRYING OF THE WEST" ARTICLE**
Staff Recommendation: For information.
- 7. REQUEST FOR PROPOSAL FOR PALOS VERDES DEWATERING AND GROUNDWATER REUSE STUDY**
Staff Recommendation: For information.
- 8. CONSIDERATION OF RESOLUTION NO. 09-846 – 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**
Staff Recommendation: For information.
- 9. GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP) UPDATE**
Staff Recommendation: For information.
- 10. AS-NEEDED PROFESSIONAL SERVICES BY CONSULTANTS**
Staff Recommendation: Update the list of prequalified consultants on an as-needed basis for engineering/technical services annually.

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

12. ADJOURNMENT

Posted by Abigail C. Andom, Deputy Secretary, January 2, 2009.

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 NOVEMBER 14, 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 Friday, November 14, 2008, 1:00 p.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California. Director Rob Katherman 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 Robert Katherman and Willard H. Murray, Jr.

Staff: Robb Whitaker, Ted Johnson, Bob Siemak, Jason Weeks and Paul Fu

2. PUBLIC COMMENT

None.

3. APPROVAL OF THE MINUTES OF OCTOBER 1, 2008

The minutes were approved as submitted.

4. DISCUSSIONS WITH SOUTH MONTEBELLO IRRIGATION DISTRICT OVER PRODUCTION WELLS AND EASEMENTS NEAR SPREADING GROUNDS

Chief Hydrogeologist Ted Johnson said that the South Montebello Irrigation District (SMID) has contacted the WRD to inquire if there was any interest in obtaining two of their wells. Mr. Johnson said that this gives the WRD an opportunity to purchase some land very near the spreading grounds. Director Murray said that he would have great interest regarding this matter. The Committee advised staff to venture forward including further evaluating the purchase and appraisals of the wells.

5. GROUNDWATER BASIN UPDATE

Mr. Johnson gave a brief update on the conditions of the basin stating that staff does not have all the numbers for the water year available. He said that replenishment activities were slightly lower than anticipated because there is no Metropolitan Water District (MET) water available and because of that water levels have fallen between 5 and 10 feet in the Central Basin. Mr. Johnson explained that this resulted in a loss of storage of 30,000 to 50,000 acre feet. He noted that the seawater barrier wells were working through the year and were in pretty good shape. He said that precipitation was about an inch below normal which did not help with the replenishment. He said the predictions for next year are between normal to dry. Mr. Johnson stated that stormwater spreading was slightly lower

than budgeted but higher than expected in light of the continuing drought conditions. He said it looks like the final pumping for the year came in at around 245,357 acre feet compared to the 235,000 acre feet budgeted. He concluded saying that staff will be updating the information for inclusion in the Engineering and Survey Report (ESR) and the final numbers should be available for the next Committee meeting.

6. REVISED CONTRACT WITH USGS TO LOWER THE COST FOR MONITORING WELL CONSTRUCTION

Mr. Johnson said that staff was successful in obtaining federal funding for the monitoring wells and has asked the United States Geological Survey (USGS) to reduce the District's contract amount by the corresponding grant amount. The Committee concurred with the staff recommendation to execute a contract amendment with the USGS reducing the construction cost of four groundwater monitoring wells by \$370,000.

7. MEMBRANE TREATMENT TECHNOLOGIES

Senior Engineer Paul Fu said that the Committee had requested staff to present an introduction on the latest membrane technologies. Dr. Fu made a PowerPoint presentation explaining the four categories of membrane technologies: Microfiltration (MF), Ultrafiltration (UF), Nanofiltration (NF) and Reverse Osmosis (RO). He described each process and the types of materials that each will remove. He noted that staff is producing a paper on the fouling of RO at the Vander Lans Facility based on a recent investigation.

8. MIDLAND PARK WATER TRUST

Senior Engineer Jason Weeks said that at the September 19, 2008 Board meeting, Mr. Floyd Smith of Midland Park Water Trust made a presentation to the Board regarding Midland Park's water rights. The Board directed staff to look into Mr. Smith's concerns. Mr. Weeks said that he reviewed the information provided as well as other additional information regarding the transfer of Midland Park's water rights to the City of Compton. He stated that based on discussions with the Department of Water Resources and the City of Compton it appears that Midland Park Water Trust's rights were legally transferred to City of Compton. He also stated that Compton is now serving the area that Midland Park had historically served. Mr. Weeks stated that it was legal counsel's opinion that the transfer of water rights is outside of the purview of WRD.

Director Katherman directed staff to bring this item to the next Board meeting for informational purposes.

9. UPDATE ON IRWMP

Chief of Engineering and Planning Bob Siemak said that the Integrated Regional Water Management Plan (IRWMP) is a spin-off of Proposition 50 which established bond money and stipulated that agencies must integrate all their interests, i.e., environmental, flood control, water supply, etc. Mr. Siemak stated that the District participates in three working groups – the IRWMP Leadership Committee, the IRWMP South Bay and Lower Central IRWMP, and the Greater Los Angeles County IRWMP. The District has submitted a series of projects for potential funding and the planning grants will be out mid-spring 2009. He said that this gives all agencies time to position their projects. The Department of Water Resources makes the final decision on who will receive funding. The District's projects to be presented for funding are: Groundwater Reliability Improvement Program (GRIP), Leo Vander Lans Advanced Water Treatment Facility Phase II, the Lower Central Basin Pipeline, the Whittier Narrows Conservation Pool, and the Groundwater Augmentation Project. He noted that General Manager Whitaker is the vice-chairman of the South Bay Steering Committee and therefore WRD has a seat on the Leadership Committee.

Mr. Weeks added that in order to get funding under Proposition 50, a requirement of the State Department of Water Resources was that each agency adopt an integrated regional water management plan. He said that he will print out a schematic of the IRWMP governing structure but he added that there is still some question about what defines a region.

Director Katherman requested Dave Hill of Central Basin Municipal Water District (CBMWD) to provide WRD with a list of IRWMP projects CBMWD is submitting.

10. UPDATE ON MWD FACILITATED WORKSHOPS ON CONJUNCTIVE USE

Mr. Siemak said that Central Basin MWD, West Basin MWD and the WRD have been participating in a series of facilitated workshops by Metropolitan Water District (MWD) on conjunctive use. The purpose is for MWD to work with the groundwater managers to review policies that would be advantageous for conjunctive use including the use of MWD pipeline facilities to do inter-basin transfers. An additional objective is to assess the impact of the availability of replenishment water. He said that all groundwater basin agencies are involved. Additional issues to be resolved include water quality and recovering the costs for use of the MWD transmission facilities. He said that the groundwater managers discuss various scenarios at these workshops, i.e., what would happen if seasonal water was not available for 3-4 years. He said the next meeting is on December 18th. The Committee asked that staff send them the details for this meeting.

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

Director Katherman said that he has been working on the WRD History Program. He said that he would like to add the following to a future meeting: a brief presentation on the saline plume investigation at the December meeting; Barrier Operations, and a groundwater recharge plan for the LA Forebay to be presented at the January meeting.

12. ADJOURNMENT

With no further business for the Committee, the meeting was adjourned at 2:42 p.m.

Chairperson

ATTEST:

Director



MEMORANDUM

ITEM NO. 4

Prepared by: Jason Weeks

Reviewed by: Bob Siemak

Approved by: Robb Whitaker

DATE: JANUARY 7, 2009
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: BASIN OPERATIONAL PLAN

SUMMARY

At the December 11, 2008 meeting of the Water Resources Committee, staff provided an overview of the West Coast Basin Operating Plan Study (Study) that was finalized in 2007. This study, completed by WRD and its consultant, CH2MHILL, evaluated potential alternative operational scenarios for the West Coast basin based on a primary assumption that MWD would have surplus replenishment water available 7 out of 10 years. MWD now estimates that replenishment water will be available only 3 out of 10 years as a result of the reduced availability of imported water supplies to southern California for various hydrologic, legal and regulatory reasons.

Due to this shift in the availability of surplus imported water supplies as well as firm deliveries, the Water Resources Committee requested that District staff coordinate with CH2MHILL to develop a scope of work and budget for updating the Study and expanding it to include the Central Basin. The Committee specifically recommended including an evaluation of opportunities for increased recycled water use and an assessment of how the basins could be more efficiently operated under the proposed conjunctive use framework.

District staff and CH2MHILL have been developing a scope of work and budget for such a study and will present it to the Water Resources Committee.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 5

Prepared by: Nancy Matsumoto

Reviewed by: Ted Johnson

Approved by: Robb Whitaker

DATE: JANUARY 7, 2009

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: LOS ANGELES FOREBAY GROUNDWATER RECHARGE UPDATE

SUMMARY

The Water Resources Committee has expressed interest in the District preparing a groundwater recharge plan for the Los Angeles Forebay, and has requested that staff research and make recommendations regarding such an initiative.

Staff has researched aspects of this item in the past. With respect to surface recharge, a number of impediments exist, particularly the lack of availability of open, non-industrialized space. With respect to injection recharge, the most significant hurdle is permitting, particularly if recycled water recharge is desired. With respect to in-lieu recharge, a number of pumpers in the L.A. Forebay area were previously taken off the District's In-Lieu Program due to budget constraints.

These pumpers have not been reinstated since Fiscal Year 2001 – 2002. Some conditions have changed since that time, most notably the availability of MWD water for in-lieu. However, given that In-Lieu has been applied previously to the area, staff recommends revisiting this Program, before attempting to site, design, permit and construct surface or injection recharge facilities.

Therefore, staff recommends additional research to determine the feasibility of reinstating in-lieu recharge via WRD or other storage programs. Staff will discuss this recommendation in further detail at the Committee meeting.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 6

Prepared by: Nancy Matsumoto

Reviewed by: Ted Johnson

Approved by: Robb Whitaker

DATE: JANUARY 7, 2009

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: NATIONAL GEOGRAPHIC'S "DRYING OF THE WEST" ARTICLE

SUMMARY

Per the Committee's request, staff reviewed the article titled "Drying of the West" in the February 2008 issue of National Geographic magazine. This article, like others related to historical climate analysis and climate change, provides insight to the potential impacts that future climate patterns may have on the western United States and on the District's service area.

The article first focuses on a climate pattern noted since the turn of this century by university and government scientists studying tree-ring growth patterns in the West, spanning from more than 1,200 years ago to the present. These growth patterns, which directly correlate to the amount of available water for each year of tree growth, show that the 20th century was the wettest of the past 1,200 years. The cause(s) for this pattern are unknown.

Unfortunately, these scientists also note that the 20th century corresponds to the great increase in population growth in the West, when this unusually wet period encouraged development. Now that it appears that this wet period is over and will not likely be repeated soon, scientists and water managers are concerned that existing and projected populations in the West cannot be readily sustained, as the Colorado River will be tapped to its limits, and regional aquifers will be drained to support competing water needs.

The article also notes that global warming and associated climate change may intensify the drying pattern in the West. Numerous independent climate models generated from research groups around the world have predicted the same basic pattern for the region: precipitation will decline and the West will become drier through at least mid-century, and the geographic range of dryness will extend northward.

Finally, the article touches on various ramifications of the drying pattern in the West: how wild plant and animal populations are already being affected, how Colorado River reservoirs and regional aquifers are being severely depleted, and how agricultural and urban water interests are facing increasing conflicts over water rights.

The conclusions of this article serve to highlight the importance of the District's reducing its reliance on imported water. WRD's ongoing efforts via its Water Independence Network

(WIN) program are vital to ensuring sufficient, high-quality supplies for the District's groundwater users.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 7

Prepared by: Phuong Ly

Reviewed by: Robert Siemak

Approved by: Robb Whitaker

DATE: JANUARY 7, 2009

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: REQUEST FOR PROPOSAL FOR PALOS VERDES DEWATERING AND GROUNDWATER REUSE STUDY

SUMMARY

On the south side of the Palos Verdes (PV) Peninsula, a landslide above Abalone Cove is currently being mitigated by dewatering facilities that extract groundwater from the slide area and discharge the water into the ocean. A preliminary review of information suggests that the volume of water extracted is on the order of a few hundred thousand gallons per day. The presumed sources of the groundwater include natural percolation, irrigation, and septic system leaching. In addition, it has been reported that some natural surface streamflow may exist in the area nearby the landslide area.

On the north side of the PV Peninsula (in the Malaga Plaza area), there is an existing groundwater drain (or drains) installed to lower groundwater levels in the residential neighborhood. According to information verbally conveyed to West Basin Municipal Water District (WBMWD) from the City of Palos Verdes Estates, the drain reportedly discharges multiple hundred thousand gallons per day which discharges by gravity at a substantial flow rate and is wasted to the ocean. Reuse of this water would reduce demand for imported water within the service areas of both WRD and WBMWD. WRD and WBMWD would like to assess the feasibility of diverting this drainage and piping it to the Palos Verdes Golf Course and possibly other nearby park sites for irrigation purposes. WBMWD has indicated that the Palos Verdes Golf Course has installed the necessary infrastructure to use non-potable water for irrigation purposes. WBMWD also indicated that they would participate in the funding of a reuse study.

WRD and WBMWD have drafted a Request for Proposal for professional services to conduct a fatal flaw analysis of reuse of this water. The study is estimated to cost \$20,000, which will be equally shared by both agencies.

FISCAL IMPACT

WRD's portion of this study will be funded from the water resources planning budget for Fiscal Year 2008-09.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 8

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

DATE: JANUARY 7, 2009
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: CONSIDERATION OF RESOLUTION NO. 09-846 – 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

SUMMARY

Resolution No. 09-846 orders the preparation of the annual Engineering Survey and Report (ESR) and states the items that are to be included in the report pursuant to Water Code Section 60300. This report determines, among other things, the replenishment water needs and water costs of the District for the ensuing Water Year 2009/10. This information, combined with the upcoming budget forecast, provides the Board with the necessary information to determine the Replenishment Assessment (RA) required for the ensuing Fiscal Year 2009/10.

Staff has drafted a preliminary schedule to meet the requirements of the Water Code for this year's ESR and RA process:

Date	Item	Board action
01/16/09	Order preparation of ESR	Adopt Resolution No. 09-846 to order preparation of the ESR
03/20/09	Complete the ESR	Adopt Resolution giving notice that a RA will be established for the ensuing year 2009/2010
04/03/09	Open Public Hearing	Conduct public hearing on ESR and RA
05/01/09	Close Public Hearing	Close public hearing on ESR and RA
05/01/09	Set the RA	Adopt Resolution to set the RA for FY 2009/10

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.

RESOLUTION NO. 09-846

**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**

WHEREAS, Section 60300 of the California Water Code requires the Board of Directors of a Water Replenishment District to order an engineering survey and report to be made regarding the groundwater supplies of the District as a prerequisite to the establishment of an annual water replenishment assessment;

NOW, THEREFORE, IT IS RESOLVED AS FOLLOWS:

1. The Board of Directors ("Board") of the Water Replenishment District of Southern California ("District") orders that an engineering survey and report be prepared by Staff regarding the groundwater supplies of the District.
2. The engineering survey and report shall include, in addition to such other information as may be deemed relevant by Staff, the following:
 - a. Records, data and other information for the consideration of the Board in its determination of the annual overdraft;
 - b. Records, data and other information for the consideration of the Board in its determination of the accumulated overdraft as of the last day of the preceding water year;
 - c. A report, with supporting data, as to the total production of groundwater from the groundwater supplies within the District during the preceding water year;
 - d. A report, with supporting data, as to the changes during the preceding water year in the pressure levels or piezometric heights of the groundwater contained within pressure-level areas of the District, and as to the effects thereof upon the groundwater supplies within the District;
 - e. An estimate of the annual overdraft for the current water year and for the ensuing water year;
 - f. An estimate of the accumulated overdraft as of the last day of the current water year;
 - g. An estimate of the total production of groundwater from the groundwater supplies within the District for the current water year and for the ensuing water year;

- h. An estimate of the changes during the current water year in the pressure levels or piezometric heights of the groundwater contained within pressure-level areas of the District, and of the effects thereof upon the groundwater supplies within the District;
 - i. An estimate of the quantity, source, and cost of water available for replenishment of the groundwater supplies during the ensuing water year under the provisions of Section 60315 of the California Water code;
 - j. A statement of any recommended actions to be undertaken by the District for the purpose of protecting and preserving the groundwater supplies within the District for beneficial uses under Section 60224 of the California Water Code and the estimated costs of each recommended action, including but not limited to engineering and legal fees and expenses and District overhead.
3. Staff shall deliver the report as requested herein on or before the second Tuesday in March 2009 or as otherwise specified under Section 60043 of the California Water Code.

PASSED, APPROVED AND ADOPTED this __ day of February, 2009.

President

ATTEST:

Secretary



MEMORANDUM

ITEM NO. 9

Prepared by: Bob Siemak

Reviewed by: Robb Whitaker

Approved by: Robb Whitaker

DATE: JANUARY 7, 2009

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP) UPDATE

SUMMARY

At the September 5, 2008, the Board approved a Memorandum of Understanding (MOU) to jointly fund a Preliminary Development Plan for the Groundwater Reliability Improvement Program (GRIP). GRIP is a partnership of WRD, Upper San Gabriel Valley Municipal Water District (USGVMWD) and Los Angeles County Sanitation Districts (LACSD) to develop a project that would replace unreliable imported replenishment water with a locally sustainable supply (i.e. advanced treated reclaimed water).

The primary goals of the GRIP are to:

- Protect groundwater quality and quality of life
- Provide a sustainable and reliable supply for replenishing the basins
- Minimize the environmental/energy footprint of any option or options selected
- Minimize cost to agencies using groundwater
- Engage stakeholders in the decision making process

The Partnership has been working on the Preliminary Development Plan which involves the performance of a feasibility level assessment for providing advanced treated wastewater as a new source of replenishment water. Staff has been coordinating the efforts with our partners and the consultant (MWH) performing the work. Staff will provide the Committee an update of our progress on this work effort including an overview of the project, implementation schedule and budget and future planned activities.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

For information.



MEMORANDUM

ITEM NO. 10

Prepared by: Bob Siemak
Reviewed by: Robb Whitaker
Approved by: Robb Whitaker

DATE: JANUARY 7, 2009
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: AS-NEEDED PROFESSIONAL SERVICES BY CONSULTANTS

SUMMARY

In late November 2007, WRD prequalified consultants for engineering/technical services on an as-needed basis. With consultants prequalified for various specialties, WRD was able to expedite the procurement to obtain technical support from consultants in a timely manner. A total of 33 consultants were prequalified in the various specialties and this list of consultants was used to solicit engineering/technical services from November 2007 to the present with the intent of periodically updating the list as WRD's needs change or expand.

In the first quarter of 2009, WRD will be issuing a request for qualification and receiving statement of qualification from consultants for engineering/technical services on an as-needed basis. The updated list of prequalified consultants will be used for procurement of engineering/technical service as WRD moves forward with its projects and programs.

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

Update the list of prequalified consultants on an as-needed basis for engineering/technical services annually.