

**SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE  
OF THE BOARD OF DIRECTORS  
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA  
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CALIFORNIA 90712  
11:30 A.M., WEDNESDAY, JANUARY 5, 2011**

**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 NOVEMBER 3, 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. CONSIDERATION OF RESOLUTION NO. 11-895 – 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:* Adopt Resolution No. 11-895.
- 7. USBR WATERSMART GRANT APPLICATION FOR GOLDSWORTHY DESALTER EXPANSION FEASIBILITY STUDY**  
*Staff Recommendation:* Authorize the General Manager to submit a grant application for a feasibility study for the expansion of the Goldsworthy Desalter under the USBR's WaterSMART: Development of Feasibility Studies under the Title XVI Water Reclamation and Reuse Program and adopt a resolution to commit WRD to the financial and legal obligations associated with receipt of financial assistance.
- 8. RESEARCH OF HIGH-RECOVERY NANOFILTRATION/ REVERSE OSMOSIS INTEGRATED MEMBRANE TREATMENT SYSTEM FOR THE GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP)**  
*Staff Recommendation:* Authorize the General Manager to enter into a letter agreement with the LACSD, subject to approval of form by District Counsel, to conduct a NF/RO research project for an amount by WRD not to exceed \$30,000.
- 9. UPDATE ON MEMBRANE RESEARCH PROJECTS**  
*Staff Recommendation:* For information.

10. **FIVE-YEAR CAPITAL IMPROVEMENT PLAN UPDATE**  
*Staff Recommendation:* For information.
11. **GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP) UPDATE**  
*Staff Recommendation:* For information.
12. **DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF**
13. **ADJOURNMENT**

Posted by Abigail C. Andom, Deputy Secretary, December 29, 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](http://www.wrd.org).

UNAPPROVED  
MINUTES

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MINUTES

**MINUTES OF NOVEMBER 3, 2010  
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 Water Replenishment District of Southern California was held on Wednesday, November 3, 2010, 1:21p.m. at the District Office, 4040 Paramount Boulevard, Lakewood, California. Director Albert Robles 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 Albert Robles and Rob Katherman  
Staff: Robb Whitaker, Ted Johnson, Jason Weeks, Jim McDavid,  
Charlene King

**2. PUBLIC COMMENT**

Terry Spragg of Spragg and Associates stated that he would like to ask WRD's assistance and support in preparing a request for proposal (RFP) for a potential fabric pipeline for Humboldt Bay. Mr. Spragg explained that his proposal would involve moving potable water from Humboldt Bay to the Delta via fabric pipeline and the water can be used in case of emergencies.

Discussion followed regarding follow-up with Mr. Spragg.

**3. MINUTES OF THE MEETING OF OCTOBER 6, 2010**

The minutes were approved as submitted.

**4. GROUNDWATER BASIN UPDATE**

Chief Hydrogeologist Ted Johnson provided an update on groundwater conditions in the Central and West Coast Basins. Mr. Johnson reported that precipitation for the water year ending September 30, 2010 was 17.45 inches or 2.31 inches above the normal. He noted that replenishment amounts for the water year reflect increased use of recycled water for spreading.

Mr. Johnson stated that groundwater levels at Central Basin Key Well 1601T are falling at the rate of about 0.75 foot per week, noting that last year the well reached a 32-year low. In the West Coast Basin, Mr. Johnson stated that Key Well Carson 1 shows water level fluctuations in the confined aquifer. Groundwater levels rose between 1997 and 2006, leveled off between 2006 and 2008, declined in 2009, rebounded through the early part of 2010 and have been generally flat over the past two weeks.

Mr. Johnson stated that pumping in the Central Basin is currently .15% below the previous year and the West Coast Basin is currently 2.82% lower than previous year. WRD is forecasting total pumping for the Water Year at 242,200 acre feet.

**5. GROUNDWATER BASINS MASTER PLAN UPDATE**

Senior Engineer Jason Weeks provided an update on the development of the Groundwater Basins Master Plan. Mr. Weeks stated that on the West Coast Basin portion of the study, staff and consultants are working on the development and evaluation of the conceptual alternative management scenarios. On the Central Basin portion of the study, he stated that interviews with Central Basin water rights holders are being scheduled the week of November 15 and are expected to be completed by mid-December.

**6. CONTRACT AMENDMENT FOR RMC WATER AND ENVIRONMENT**

General Manager Robb Whitaker stated that the District contracted with RMC Water and Environment on February 15, 2008 to assist staff for as-needed grant and technical support on a task order basis.

Mr. Whitaker noted that the same contract was extended to June 2009 with no additional cost to the District and will expire on December 31, 2010. He stated that since the extension of the agreement, RMC has assisted the District with the development of Plans of Study and securing State Water Resources Control Board (SWRCB) Planning Grants (\$75,000 each) for the GRIP and Vander Lans Expansion projects.

Mr. Whitaker stated that RMC also provided assistance in securing a U.S. Bureau of Reclamation WaterSmart grant (\$299,000) for development of the Groundwater Basins Master Plan.

Mr. Whitaker stated that continued work is required under this contract for assistance with as-needed grant and technical support, and for grant applications and related project planning services. He explained that efforts during the second part of this fiscal year will include pursuit of funding via Department of Water Resources (DWR) Local Groundwater Assistance (AB303) grants, Proposition 84 grants, SRF loans, USBR grants, and other state and federal programs. He also noted that this funding pursuit is separate from and not a part of the District's efforts to secure grant funding through the Integrated Regional Water Management (IRWM) process. District funding for the IRWM process is contributed separately to the Los Angeles County Department of Public Works, who manages the consultant contract with Brown and Caldwell for that effort on behalf of the Greater Los Angeles region.

Discussion followed and the Committee recommended the Board authorize a contract term extension to June 30, 2011 and supplemental funding in the amount of \$50,000 to continue services through the current fiscal year.

**7. AGREEMENT WITH LADWP FOR REIMBURSABLE WELL CONSTRUCTION CONTRACT MANAGEMENT SERVICES**

Chief Hydrogeologist Ted Johnson stated that in 2001, WRD served as contract administrator for the Los Angeles Department of Water & Power (LADWP) during the construction of the new production well at their 99<sup>th</sup> Street facility in the Central Basin. Mr. Johnson noted that the District was fully reimbursed for staff time and expenses related to the project. He stated that the District accepted the role as contract administrator to obtain specific geologic and water quality information in this part of the basin from the new well, and also to provide assistance to the City of Los Angeles improving their groundwater extraction capabilities without incurring costs to the other pumpers within the District.

Mr. Johnson stated that LADWP is now requesting the District's assistance to serve as contract administrator for their upcoming new production and monitoring wells in the Central Basin. He explained that by participating in this effort, WRD will once again obtain important hydrogeologic information in this part of the groundwater basin and will be able to provide considerable assistance to the City of Los Angeles in completing this important project without imposing any financial impact to the other pumpers in the District. He stated that WRD will be the agency responsible for procuring the contractor to drill and install the wells after LADWP prepares the well construction bid specifications. Both agencies will oversee the construction activities.

Mr. Johnson stated that the total estimated cost for the project is \$8,300,000 and because of LADWP's full reimbursement, there is no net cost impact to WRD.

The Committee recommended the Board (1) enter into a Memorandum of Agreement with the City of Los Angeles Department of Water & Power, subject to approval of form by District Counsel, for water well construction contract management services for a cost not to exceed \$8,300,000. All costs incurred by WRD for this project will be fully reimbursed by LADWP in a timely manner so that there is no net cost impact to WRD or the other pumpers in the District; and (2) authorize staff to release Requests for Bids for the construction of production wells and monitoring wells related to the Manhattan Well Field project with LADWP.

**8. STRATEGIC SUPPORT SERVICES CONTRACT WITH KINDEL GAGAN, INC.**

Mr. Whitaker stated that the District currently has a professional services agreement with the firm of Kindel Gagan, Inc. for strategic support and water resources planning efforts which is scheduled to expire on December 31, 2010. He stated that the contract provides for a monthly fee of \$10,000 plus \$225 per hour for any planning or analysis associated with legislation.

Discussion followed and the Committee recommended the Board extend the professional services agreement with Kindel Gagan, Inc. for strategic support services for a period of six months expiring on June 30, 2011 for a monthly fee of

\$10,000 plus \$225 per hour for any planning or analysis associated with legislation.

**9. GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP) UPDATE**

Senior Engineer Jim McDavid provided an update on the Groundwater Reliability Improvement Program (GRIP) project. Mr. McDavid stated that the Upper San Gabriel Valley Municipal Water District (USGVMWD) approved the revised Joint Powers Agreement (JPA) yesterday at their Board meeting with a 4-0 vote, with Director Al Contreras absent. He noted that the Los Angeles County Sanitation Districts is scheduled to approve the JPA at their meeting to be held on November 10. He stated that WRD District Counsel has submitted to the Secretary of State the Notice of a Joint Powers Agreement which identifies the framework of the JPA, identifying the mailing address, physical location and purpose of the JPA. Mr. McDavid stated that staff is also working on the work plan for the Rogers Group who will oversee the GRIP's outreach services.

**10. CLOSED SESSION**

Conference with Legal Counsel – Anticipated litigation, pursuant to Government Code §54956.9(b), One Case

The Committee went into closed session. The Committee reconvened in open session. The Committee reported that there was no reportable action taken.

**11. DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF**

None.

**12. ADJOURNMENT**

With no further business for the Committee, the meeting was adjourned at 2:00 p.m.

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Chair

ATTEST:

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Member

*Prepared by:* Ted Johnson

*Reviewed by:* Nancy Matsumoto

*Approved by:* Robb Whitaker

**DATE: JANUARY 5, 2011**

**TO: WATER RESOURCES COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

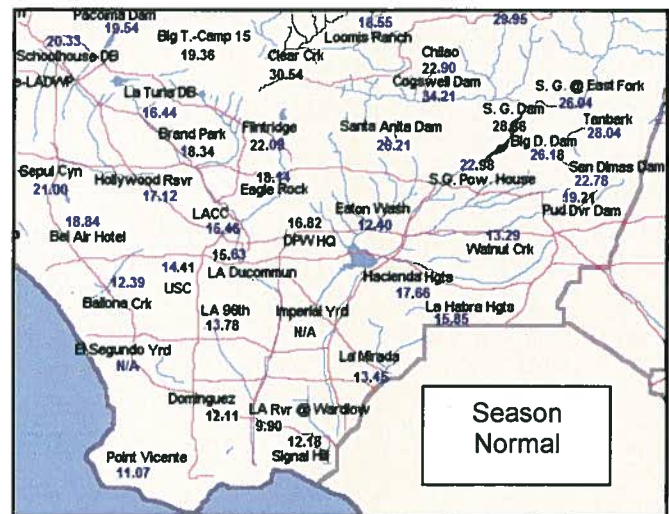
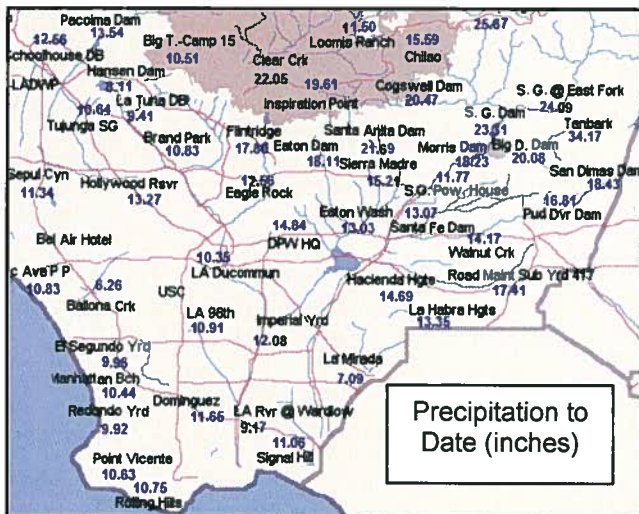
**SUBJECT: GROUNDWATER BASIN UPDATE**

**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 WRD Precipitation Index from October 1, 2010 (start of the water year) to December 27, 2010 indicates the region has received 11.92 inches of rainfall to date. This represents 81% of the full year average of 14.73 inches, with the historically high-rainfall months of January through April to come. However, meteorological experts report that the region is in a strong La Niña pattern, which could mean a drier-than-normal January through April. The following figures show Los Angeles County Department of Public Works (LADPW) precipitation stations in and around WRD with their rainfall to date compared to normal annual rainfall.



**Replenishment:**

WRD purchases recycled and imported water for groundwater recharge at spreading facilities and seawater barrier injection wells owned and operated by the LADPW. The spreading facilities include the Rio Hondo and San Gabriel Coastal Spreading Grounds in the Montebello Forebay, and the seawater barrier injection wells include the West Coast Barrier (WCB),

Dominguez Gap Barrier (DGB) and Alamitos Barrier (AB) along the coast. In addition to the recycled and imported water that WRD purchases for replenishment, LACDPW also captures and spreads storm water and dry weather river base flow (local water) to assist with groundwater replenishment. A summary of replenishment amounts for the water year ending September 30, 2010 is shown on the table below.

Water Year 09-10 (Oct. 1 - Sep. 30)	Planned for the Year	Amount to Date	Through End of	Projected for WY0910
Spreading, Imported	21,000	26,286	Sep	26,286 <sup>3</sup>
Spreading, Recycled <sup>1</sup>	50,000	55,732	Sep	55,732
Spreading, Local	54,000	35,397	Sep	35,397
West Coast Injection, Imported	3,800	9,661	Sep	9,661
West Coast Injection, Recycled	11,400	7,620	Sep	7,620
Dominguez Injection, Imported	4,000	5,501	Sep	5,501
Dominguez Injection, Recycled	4,000	2,037	Sep	2,037
Alamitos Injection, Imported <sup>2</sup>	2,100	2,596	Sep	2,596
Alamitos Injection, Recycled <sup>2</sup>	2,100	1,775	Sep	1,775
<b>TOTAL</b>	<b>152,400</b>	<b>146,605</b>	--	<b>146,605</b>

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

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

<sup>3</sup> 21,000 AF purchased as planned for WY09-10. 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).

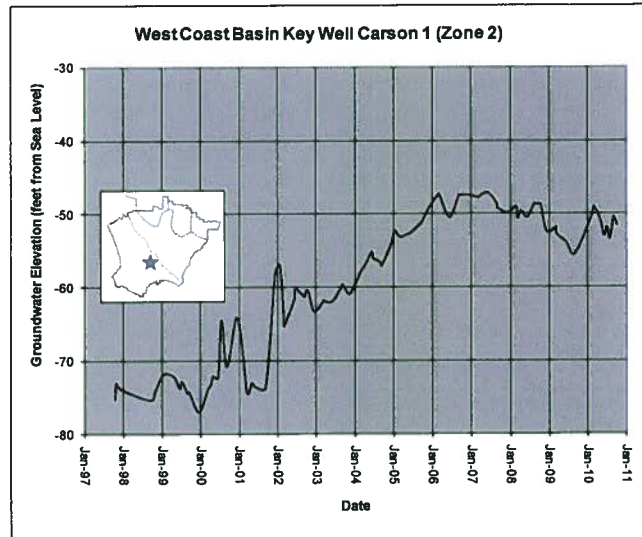
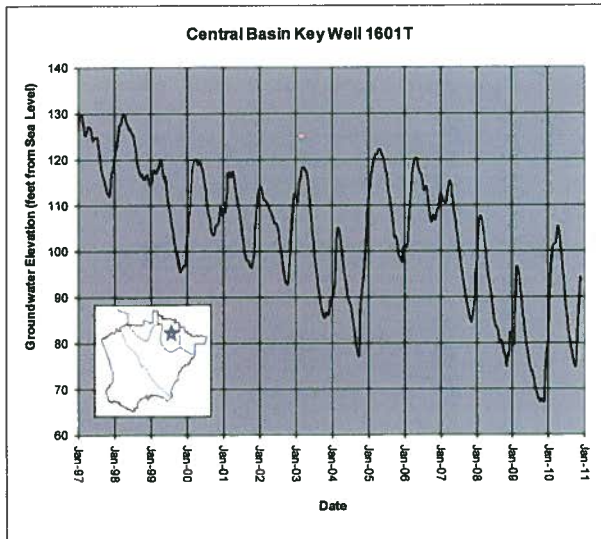
Regarding the current water year and imported water purchases, WRD ordered 18,000 acre-feet of untreated Tier 1 water from Central Basin MWD on October 27, 2010 and deliveries commenced on Monday, November 1, 2010. Normal replenishment water from MWD continues to be unavailable which is why the untreated Tier 1 water is being bought. As of this writing, a total of 9,642.7 acre-feet has been delivered with an additional 8,357.3 acre-feet remaining.

### Groundwater Levels:

Groundwater levels in two Central and West Coast Basin key wells are shown in the hydrographs below. In the Central Basin Key Well, water levels have been generally declining over the past 14 years. Overlying this general trend are seasonal water level rises and drops in response to winter and storm water recharge (rise) and summer pumping and reduced

recharge (drops). The well is currently experiencing the normal water level rise during winter which is expected to continue until early April unless a drier-than-normal January through March causes water levels to drop sooner.

In the West Coast Basin Key Well, water levels generally were rising from 2000 through 2007, when they began to drop until mid 2009, and have lately remained relatively stable.



### 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 finished the water year 0.5% below the previous year and the West Coast Basin finished the water year 3% lower than the previous year. Combining both basins, total pumping was nearly 2,300 acre-feet below the previous year or 0.9%. Overall pumping was 905 acre-feet higher than originally planned (0.4% higher).

Basin	October – September		Difference (AF)	Difference (%)	Forecast for Water Year (AF)	Planned for Water Year (AF)
	Previous WY (AF)	Current WY (AF)				
Central	198,156.32	197,233.66	-922.66	-0.47	197,233.66	201,500
West Coast	45,245.95	43,871.34	-1,374.61	-3.04	43,871.34	38,700
TOTAL	243,402.27	241,105.00	-2,297.27	-0.94	241,105.00	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: JANUARY 5, 2011**

**TO: WATER RESOURCES COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

**SUBJECT: GROUNDWATER BASINS MASTER PLAN UPDATE**

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### 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. The development and groundwater modeling of conceptual alternative management scenarios in the West Coast Basin is currently underway.

Interviews with Central Basin water rights holders have been initiated and are currently ongoing. Two workshops with were held in November and the final workshops are currently being scheduled for early January.

District staff will provide the Committee with an overview of the materials used for the Central Basin pumper interviews, a summary of feedback received to date, and an update on the project schedule.

### FISCAL IMPACT

None.

### STAFF RECOMMENDATION

For information.





**MEMORANDUM**

**ITEM NO. 6**

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

**DATE: JANUARY 5, 2011**  
**TO: WATER RESOURCES COMMITTEE**  
**FROM: ROBB WHITAKER, GENERAL MANAGER**  
**SUBJECT: CONSIDERATION OF RESOLUTION NO. 11-895 – 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. 11-895 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 11-12. This information, combined with the upcoming budget forecast, provides the Board of Directors with the necessary information to determine the Replenishment Assessment (RA) required for the ensuing fiscal year 11-12.

Staff has drafted a preliminary schedule (subject to change) to meet the requirements of the Water Code for this year’s ESR and RA process:

<b>Date</b>	<b>Item</b>	<b>Board action</b>
01/21/11	Order preparation of ESR	Adopt Resolution No. 11-895 to order preparation of the ESR
03/18/11	Receive and File the ESR	Adopt Resolution giving notice that a RA will be established for the ensuing fiscal year 11-12
04/01/11	Open Public Hearing	Conduct public hearing on ESR and RA
05/06/11	Close Public Hearing	Close public hearing on ESR and RA
05/06/11	Set the RA	Adopt Resolution to set RA for fiscal year 11-12

**FISCAL IMPACT**

None.

**STAFF RECOMMENDATION**

Adopt Resolution No. 11-895.



**RESOLUTION NO. 11-895**

**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 2011 or as otherwise specified under Section 60043 of the California Water Code.

PASSED, APPROVED AND ADOPTED this 21<sup>st</sup> day of January, 2011.

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President, Board of Directors

ATTEST:

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Secretary, Board of Directors



## MEMORANDUM

ITEM NO. 7

*Prepared by:* Jason Weeks

*Reviewed by:* Ted Johnson

*Approved by:* Robb Whitaker

**DATE: JANUARY 5, 2011**

**TO: WATER RESOURCES COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

**SUBJECT: USBR WATERSMART GRANT APPLICATION FOR GOLDSWORTHY  
DESALTER EXPANSION FEASIBILITY STUDY**

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### SUMMARY

WRD is intending on applying for grant funding for the development of a feasibility study for expansion of the Goldsworthy Desalter under the USBR's WaterSMART Development of Feasibility Studies under the Title XVI Water Reclamation and Reuse Program.

The objective of this grant program is to invite applicants to submit a proposal for the development of a new Title XVI feasibility study. The development of such a study is required prior to any project receiving construction funding under Title XVI.

It is estimated that USBR will award 8 to 10 projects under this program with a Federal funding share of up to \$150,000 each. Applicants must provide a minimum cost share of 50 percent of the total project cost. The deadline for applications is February 11, 2011, with a Resolution by the governing bodies required no later than 30 days after the application due date.

The WaterSMART application requires the inclusion of an official Resolution adopted by the applicant's Board of Directors to commit the applicant to the financial and legal obligations associated with receipt of WaterSMART grant for financial assistance. A similar resolution was submitted with the District's successful WaterSMART System Optimization Review (SOR) grant application that was awarded in mid-2010. District's staff is currently verifying that the resolution format used for the SOR grant will suffice for this application. A copy of the resolution will be provided at the Committee meeting.

District staff will present the Committee with an overview of the Resolution and any associated financial obligations.

### FISCAL IMPACT

None at this time. Minimum cost share of 50 percent of the total project amount (undetermined at this time) if the grant is awarded.

### STAFF RECOMMENDATION

Authorize the General Manager to submit a grant application for a feasibility study for the expansion of the Goldsworthy Desalter under the USBR's WaterSMART: Development of Feasibility Studies under the Title XVI Water Reclamation and Reuse Program and adopt a resolution to commit WRD to the financial and legal obligations associated with receipt of financial assistance.





**MEMORANDUM**

**ITEM NO. 8**

*Prepared by: Jim McDavid*

*Reviewed by: Ted Johnson*

*Approved by: Robb Whitaker*

**DATE: JANUARY 5, 2011**

**TO: WATER RESOURCES COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

**SUBJECT: RESEARCH OF HIGH-RECOVERY NANOFILTRATION/ REVERSE OSMOSIS INTEGRATED MEMBRANE TREATMENT SYSTEM FOR THE GROUNDWATER RELIABILITY IMPROVEMENT PROGRAM (GRIP)**

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**SUMMARY**

The GRIP partnership, made up of the Upper San Gabriel Valley Municipal Water District (USGVMWD), Los Angeles County Sanitation Districts (LACSD) and WRD, continues to conduct research into new and innovative technologies for possible implementation for any proposed advanced water treatment facility that may be constructed as part of the GRIP. The most recent collaborative undertaking is to evaluate a high-recovery Nanofiltration / Reverse Osmosis (NF/RO) integrated treatment system at the LACSD's San Jose Creek Water Reclamation Plant. This research project will expand on a recently completed study at the WRD's Leo J. Vander Lans Water Recycling Facility by determining the viability and potential application of the integrated treatment system which can achieve an overall product water recovery greater than 90%.

The project team is recommending the following contributions: WRD \$30,000; USGVMWD \$30,000; and LACSD \$30,000 of in-kind services. Additionally, the U.S. Bureau of Reclamation (USBR) has agreed to participate in this important effort by contributing \$50,000. LACSD will conduct the research project and will enter into an agreement with the USBR to secure their portion of the funding. A one page summary of the proposed study is attached to this staff report.

**FISCAL IMPACT**

The total NF/RO research project budget is \$140,000 with the WRD share at \$30,000, or 21% of the total budget. This is a new cost sharing opportunity that arose subsequent to the development of the WRD budget for fiscal year 2010-11.

**STAFF RECOMMENDATION**

Authorize the General Manager to enter into a letter agreement with the LACSD, subject to approval of form by District Counsel, to conduct a NF/RO research project for an amount by WRD not to exceed \$30,000.



## GRIP Research Outline: Evaluation of a High-Recovery NF/RO Integrated Treatment System

### I. Objectives and Benefits

**A. Objectives:** Expand on recently completed pilot-scale testing to demonstrate, over a longer testing period, the viability and potential application of a high-recovery NF/RO integrated treatment system concept. Provide information that may be used to support the design for the GRIP facility.

**B. Benefits:** The integrated treatment system is capable of achieving an overall recovery of approximately 92%. Implementation of the integrated system could reduce concentrate volume and related disposal costs by approximately 50%.

### II. Study Duration, Location, Tentative Schedule

**A. Duration:** The study will be conducted over one year, with approximately 6-months of actual testing. The first 3-4 months of the project would be reserved for acquiring needed equipment, installation, and start-up.

**B. Location:** The study will be conducted at the San Jose Creek West WRP.

### C. Tentative Schedule

Task	Dates
Submit revised research plan and budget to USBR for approval	November 22, 2010
Establish formal agreement with USBR	December 2010 - January 2011
Acquire equipment, system set-up, system start-up	January 2011 - March 2011
Pilot testing	April 2011 - September 2011
Final report preparation	October 2011 - December 2011

### III. Proposed Budget and Contributions

#### A. Proposed Budget

Item	Cost
Secondary RO Pilot System Purchase	\$10,000
NF Membranes	\$2,000
UF Pilot System Lease	\$40,000
Membrane Autopsy	\$12,000
Chemicals	\$5,000
Miscellaneous Equipment	\$6,000
Laboratory Analyses (LACSD Lab)	\$35,000
Equipment Acquisition, Pilot Plant Operation, Report Preparation (LACSD Research Staff)	\$30,000
<b>Total Budget =</b>	<b>\$140,000</b>

#### B. Proposed Contributions

	In-Kind	Cash	Total Contribution
LACSD	\$30,000	(\$35,000) <sup>1</sup>	\$30,000
WRD		\$30,000	\$30,000
USGVMWD		\$30,000	\$30,000
USBR		\$50,000	\$50,000
		<b>Total Budget =</b>	<b>\$140,000</b>

1. Amount to be reimbursed to LACSD.





## MEMORANDUM

ITEM NO. 9

*Prepared by:* Paul Fu

*Reviewed by:* Ted Johnson

*Approved by:* Robb Whitaker

**DATE: JANUARY 5, 2011**

**TO: WATER RESOURCES COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

**SUBJECT: UPDATE ON MEMBRANE RESEARCH PROJECTS**

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### SUMMARY

The District's Vander Lans Water Treatment Facility is a state-of-the-art water treatment facility that will ensure that our local groundwater supply is clean, safe and reliable. This membrane treatment facility has been producing highly-purified recycled water for barrier injection since 2005. The District has performed several research projects to improve the performance of the membrane treatment processes. In addition, any expansion of the Facility faces a significant challenge that the sewer capacity is limited. As a result, the District has performed a study to minimize waste flow of the expanded facility.

The District's Groundwater Reliability Improvement Program (GRIP) is expected to replace a significant portion of the imported water purchased for replenishment in the Montebello Forebay Spreading Grounds with highly treated recycled water, thus reducing the region's reliance on imported water. The GRIP will apply membrane technologies similar to the Vander Lans Facility. The District has teamed with the Sanitation Districts to conduct research studies at Sanitation Districts' San Jose Creek Water Reclamation Plant.

An overview of the District's recent research projects will be presented to the Committee during the meeting. In addition, a comparison of nanofiltration to reverse osmosis from the pilot studies will also be presented during the meeting.

### FISCAL IMPACT

No impact to the District's annual budget.

### STAFF RECOMMENDATION

For information.





**MEMORANDUM**

**ITEM NO. 10**

*Prepared by: Jim McDavid*

*Reviewed by: Ted Johnson*

*Approved by: Robb Whitaker*

**DATE: JANUARY 5, 2011**

**TO: WATER RESOURCES COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

**SUBJECT: FIVE-YEAR CAPITAL IMPROVEMENT PLAN UPDATE**

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**SUMMARY**

In preparation for the upcoming mid-year budget review, together with a number of capital improvement projects scheduled to be undertaken in the near future, staff has been performing an update of the 5-year capital improvement plan. Staff will outline the basics of this plan and the anticipated capital expenditures during the upcoming 5-year period at the Committee meeting.

**FISCAL IMPACT**

None at this time.

**STAFF RECOMMENDATION**

For information.





**MEMORANDUM**

**ITEM NO. 11**

*Prepared by: Jim McDavid*

*Reviewed by: Ted Johnson*

*Approved by: Robb Whitaker*

**DATE: JANUARY 5, 2011**

**TO: WATER RESOURCES COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

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

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**SUMMARY**

The GRIP partnership, made up of the Upper San Gabriel Valley Municipal Water District (USGVMWD), Los Angeles County Sanitation Districts (LACSD) and WRD, continues to move forward with developing a program that would replace imported replenishment water with a locally sustainable supply.

As a follow-up to the recent approval of the JPA by the Secretary of State, partnership staff has been working on developing administrative policies for adoption by the JPA Board of Directors. A meeting is currently being planned for early 2011 for election of JPA Board officers and consideration of the draft administrative policies.

**FISCAL IMPACT**

None at this time.

**STAFF RECOMMENDATION**

For information.

