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

   Staff Recommendation: Approve as submitted.

4. OPERATIONS UPDATE
   Staff Recommendation: For information.

5. CONTRACT AMENDMENT NO. 4 WITH RUTH VILLALOBOS & ASSOCIATES FOR WHITTIER NARROWS DAM DEVIATION REQUEST
   Staff Recommendation: For discussion and possible action.

6. GROUNDWATER BASIN UPDATE
   Staff Recommendation: For information.

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

8. ADJOURNMENT
   The Water Resources Committee will adjourn to its next regular meeting currently scheduled for June 8, 2016 at 11:00 a.m.

Agenda posted by Chief Financial Officer Scott Ota on May 6, 2016.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the Board meeting, please contact Chief Financial Officer Scott Ota 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.

EXHAUSTION OF ADMINISTRATIVE REMEDIES – If you challenge a District action in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Deputy Secretary at, or prior to, the public hearing. Any written correspondence delivered to the Chief Financial Officer before the District’s final action on a matter will become a part of the administrative record.
A meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on Wednesday, April 13, 2016 at 11:09 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Director Rob Katherman called the meeting to order and presided thereafter. Acting Deputy Secretary Sherri Brown recorded the minutes.

1. **DETERMINATION OF A QUORUM**
   A quorum was present. Attendees at the meeting were as follows:
   
   Committee: Directors Rob Katherman and John D. S. Allen
   Staff: Ken Ortega, Paul Fu, Everett Ferguson, Jim McDavid, Jason Weeks, Scott Ota, Sherri Brown

2. **PUBLIC COMMENT**
   None

3. **OPERATIONS UPDATE**
   Senior Engineer Paul Fu provided an update on the Goldsworthy Desalter and the Leo J. Vander Lans Water Treatment Facility, including historical information and summary of current operations.

   Operations at the Goldsworthy Desalter will stop in June when the construction contractor will need to begin work which is anticipated to last for several months.

   The Leo J. Vander Lans treatment plant operated for about first 1/3 of month; then went offline for the Board authorized emergency leak investigation and repairs. The plant is currently shut down in order to install a larger calcium chloride tank. Mr. Fu anticipates the plant will be up and running again in about a week.

   Mr. McDavid provided a report on turnouts. Construction on the two new turnout structures continues to move forward.

4. **CONTRACT AMENDMENT WITH CH2M HILL TO PERFORM PASS-THROUGH WORK AND COSTS TO THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA FOR GROUNDWATER MODELING**
   Mr. Weeks stated that the Metropolitan Water District of Southern California (“Met”) is exploring a project which is a potential new supply resource for groundwater recharge projects. They are currently performing a feasibility pilot project and if successful, could produce about 67,000 acre-feet of recycled water per year to replenish local groundwater basins. Met has approached WRD to request the use of the WRD’s groundwater model of the Central and West Coast Basins. CH2M Hill is currently under contract with WRD for the Groundwater Basins Master Plan, which includes updates and use of the computer model for various hypothetical basin management simulations. Due to timing and economy of scale issues, it
would be most effective for CH2M Hill to perform the new modeling work for Met. In order to do this, a contract amendment will be needed between WRD and CH2M Hill to perform the work and an agreement between WRD and Met will also be needed.

Discussion followed.

The Committee unanimously recommended the Board approve amending the existing CH2M Hill professional services agreement scope of work to include Groundwater Modeling for the Metropolitan Water District of Southern California for an amount not to exceed $150,000; and to approve a pass-through agreement with the Metropolitan Water District of Southern California for an amount not to exceed $150,000.

5. GROUNDWATER BASIN MASTER PLAN PEIR UPDATE
Mr. Weeks gave the committee a brief update for the Preliminary Environmental Impact Report. WRD received a number of comments from several entities. Staff has worked on responses to the comments which are awaiting review by District Counsel. Discussion followed.

6. GROUNDWATER BASIN UPDATE
Mr. Ferguson highlighted the following:

- Precipitation – precipitation as of April 5, 2016 has been 6.76 inches. Normal for this time of year is 14.16 inches, so the District is 48% of normal. Mr. Ferguson also discussed the water levels in key reservoirs throughout the State as of April 4, 2016.
- Snowpack – snow measurements as of April 1, 2016 were as follows: Northern Sierra Nevada snowpack was 27.4 inches or 95% of average to date, Central Sierra Nevada snowpack was 25.1 inches or 88% of average to date and the Southern Sierra Nevada snowpack was 19.1 inches or 71% of average to date.
- Groundwater levels - groundwater levels in Central Basin Key Well 1601T increased 2.1 feet since the last report; West Coast Basin Key Well Carson #1 increased 0.15 foot since the last report.
- Montebello Forebay Spreading Grounds – Delivery of WRD’s current imported water order of 19,635 acre-feet with Central Basin MWD began on December 2, 2016. In addition, an order of 4,335 acre-feet was made with the City of Long Beach Water Department for a total from both agencies of 23,970 acre-feet. The imported water deliveries were completed on March 31, 2016. Preliminary numbers for the first five months of the water year show that 26,873 acre-feet of recycled water has been recharged, which is above the target amount of 22,917 acre-feet. The 120-month running average of recycled water contribution in the Montebello Forebay is 36.4% and the regulatory maximum is 45%. Local water received through the end of February is 8,670 acre-feet based on this analysis.
- Seawater Barrier – West Coast Barrier used 231 acre-feet of imported water and 5,450 acre-feet of recycled water was used or 96% recycled water; Dominguez Gap Barrier used 1,197 acre-feet of imported water and 1,687
acre-feet of recycled water or 58% recycled water; Alamitos Barrier used 1,469 acre-feet of imported water and 277 acre-feet of recycled water or 13% recycled water.

- In-Lieu Replenishment – no in-lieu replenishment water has been delivered to date in the current water year
- Pumping – preliminary numbers in the District for groundwater production in February 2016 indicate that 84,389 acre-feet were pumped compared to 82,927 acre-feet the year previous or an increase of 1,462 acre-feet or 1.8%. In the Central Basin, pumping was 2,610 acre-feet higher than the previous water year (3.8%) and the West Coast Basin was down 1,148 acre-feet from the previous water year (-7.7%).

7. DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF
Ken Ortega provided an update on the Groundwater Reliability Improvement Project Advanced Water Treatment Facility.

The next regular Water Resources will be May 11, 2016.

8. ADJOURNMENT
With no further business for the Committee, the meeting was adjourned at 11:154a.m.

_____________________________________
Chair

ATTEST:

______________________________
Member

Approved in minutes of:
DATE:      MAY 11, 2016
TO:        WATER RESOURCES COMMITTEE
FROM:      ROBB WHITAKER, GENERAL MANAGER
SUBJECT:   OPERATIONS UPDATE

SUMMARY
The intent of the Operations Update staff report/agenda item is to inform and update members of the Water Resources Committee on a regular and reoccurring basis about operational matters, technical issues, engineering plans, and various multi-agency strategies in regards to all of the District’s current and planned operational facilities. This report includes current updates on the Turnout Structures, the Leo J. Vander Lans Facility, and the Goldsworthy Desalter.

Turnout Structures

Construction on the two new turnout structures is essentially complete, and only minor punch-list and final automation and controls work items remain. A final notice of completion should be filed for the project in May.

Robert W. Goldsworthy Desalter Update

The Desalter was offline for the majority of April 2016 to accommodate for the well drilling’s development pumping and chlorination of the new City Yard well. The Desalter resumed normal operations on April 27th after the completion of the City Yard well drilling. A total of 15 acre feet (AF) of treated potable water was supplied to City of Torrance during the month.

Leo J. Vander Lans Facility (LVL) Update

LVL Operations. The LVL facility was intermittently operated in a 24/7 mode in April 2016. The Barrier injection quantity in April is approximately 504 AF, including 53 AF of recycled water and 451 AF of imported water. The facility was offline for 20 days in April for the following incidents:

- The emergency water leak repairs carried over from March into early April.
- Maintenance work to improve chemical storage and pumping systems.
- Troubleshooting a computer control communication glitch that affected stable plant operations.

LVL is currently operating on a 24/7 mode.
Conduct an Engineering Study to Optimize Barrier/LVL Operations. The goals of this study are to (1) increase the recycled water injection flowrate to close to 100% while allowing a small portion of imported water to flow without incurring MWD’s low-flow penalties; and (2) optimize operational and flow equalization strategies to allow consistent and stable 24/7 operations with minimum shutdowns.

On April 28th, the District Board authorized staff to initiate negotiation with RMC consultant for scope of work and fees to conduct the Study. Staff plans to present the scope and fees to the CIP Committee in late May.

FISCAL IMPACT
The fees to conduct the Engineering Study is being negotiated and will be available in late May.

STAFF RECOMMENDATION
For information.
DATE:      MAY 11, 2016

TO:        WATER RESOURCES COMMITTEE

FROM:      ROBB WHITAKER, GENERAL MANAGER

SUBJECT: CONTRACT AMENDMENT NO. 4 WITH RUTH VILLALOBOS & ASSOCIATES FOR WHITTIER NARROWS DAM DEVIATION REQUEST PACKAGE

SUMMARY
On August 21, 2014, the WRD Board of Directors approved a contract with Ruth Villalobos & Associates to complete an updated Deviation Request Package (DRP) for a three-year temporary deviation. Since then, the District in partnership with the Los Angeles County Department of Public Works, received permission from the U.S. Army Corps of Engineers (USACE) to submit a request for a five-year temporary deviation instead of the initial three-year request. The temporary deviation will raise the maximum conservation pool elevation from 201.6' to 205' and allow for an estimated additional 1,100 acre-feet per year of storm water conservation.

The DRP requires an Environmental Assessment (EA)/Finding of No Significant Impact (FONSI) and appropriate California Environmental Quality Act (CEQA)-compliant documentation in conjunction with the Deviation Study. The Board has approved previous amendments to the contract to accommodate the temporary deviation request change from three to five-years, which impacted the project budget, scope and schedule. The USACE is now requesting that Ruth Villalobos revise the draft EA to expedite the review process. At the request of USACE, the draft EA for the five-year water deviation will be revised to follow the format, style, and conclusions in the draft EA that was completed by USACE. The draft EA will also be updated to reflect changes made to the CEQA Initial Study/Mitigated Negative Declaration (IS/MND) to address the District’s and Los Angeles County Department of Public Works comments. A revised scope of work and fee reflecting the various updates is provided in Exhibit A.

The current contract with Ruth Villalobos & Associates is set to expire on June 30, 2016; however, an extension of the termination date of the contract to December 31, 2016 to complete the DRP and accommodate the requests from the USACE would be appropriate.

FISCAL IMPACT
Consultant services for completion of the deviation request package are budgeted in the current Fiscal Year budget.
STAFF RECOMMENDATION
For discussion and possible action.

Attachments: Exhibit A- Amendment No. 4
Scope of Services

Ruth Villalobos & Associates (RVA) is pleased to submit an updated scope of services and budget to revise the NEPA draft Environmental Assessment (EA) on behalf of US Army Corps of Engineers (USACE) staff in order to expedite USACE review of the draft EA. The draft EA was previously updated from the initial 3-year to a 5-year water conservation deviation. In November 2015 USACE completed a draft EA for the request to amend the existing minor deviation from the approved water control plan for Whittier Narrows Dam through March 8, 2016. This amendment extended the maximum duration of holding an impoundment up to 205 feet from twenty-four hours to seven days. At the request of USACE, the draft EA for the 5-year water conservation deviation will be revised to follow the format, style, and conclusions in the draft EA that was completed by USACE in November 2015. The draft EA for the 5-year water conservation deviation will also be updated to reflect changes made to the CEQA Initial Study/Mitigated Negative Declaration (IS/MND) to address Water Replenishment District of Southern California (WRD) and the Los Angeles County Department of Public Works (LACDPW) comments.

Scope and fee adjustments are required only for Tasks 2, Updated Environmental Assessment, and Task 3, Project Management and Coordination, of the original contract. The other elements of the original contract and scope remain unchanged. The tasks requiring updates are briefly described below.

**TASK 2: UPDATED ENVIRONMENTAL ASSESSMENT**

RVA will prepare an update the draft EA for the five-year water conservation period, to follow the format, style and consistency in conclusions of the November 2015 EA that USACE prepared. In addition, it will be revised to reflect the latest changes to the IS/MND in response to WRD and LACDPW comments. Applicable revisions to the background and setting information will be made as well as to figures/exhibits of the EA.

**TASK 3: UPDATED PROJECT MANAGEMENT AND COORDINATION**

Updated Project Management and Coordination. Additional project management and coordination with the project team will be required throughout the changes necessary to address the additional revisions. Ms Villalobos will oversee the changes and production of a new updated draft screencheck documents. She will ensure consistency among the three documents prior to submitting these to the revised EA to the USACE, WRD, and LACDPW. This task includes up to 2 meetings at USACE’s office and various coordination, via emails, phone calls, etc.
<table>
<thead>
<tr>
<th>TASKS</th>
<th>Project Director</th>
<th>Environmental Analyst</th>
<th>GIS Analyst</th>
<th>Total Estimated Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rates</td>
<td>$ 200</td>
<td>$ 150</td>
<td>$66</td>
<td></td>
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<tr>
<td>TASK 2 - Updated Environmental Assessment and CEQA Documents</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Revise Draft EA</td>
<td>8</td>
<td>48</td>
<td>4</td>
<td>$ 9,064</td>
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<td>TASK 3 - Project Management and Coordination</td>
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<tr>
<td>Project Management and Coordination (2 meetings and additional coordination, phone calls, emails, etc.)</td>
<td>16</td>
<td>4</td>
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<td>PROJECT TOTALS</td>
<td>24</td>
<td>52</td>
<td>4</td>
<td>$ 12,864</td>
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</table>
DATE: MAY 11, 2016
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: GROUNDWATER BASIN UPDATE

SUMMARY
Staff monitors groundwater conditions in its service area throughout the year. A summary of the latest information is presented below.

Precipitation
The WRD precipitation index reports that as of May 3, 2016, there had been 6.76 inches of rainfall since the start of the Water Year on October 1, 2015. Normal for this time of year is 14.86 inches, so the District is 45% of normal. Approximately 74% of the State continues to be under severe to exceptional drought conditions as reported by the U.S. Drought Monitor (as of April 26, 2016).

Reservoirs (as of May 3, 2016)

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Storage</th>
<th>Capacity</th>
<th>% Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinity Lake</td>
<td>1.49</td>
<td>2.45</td>
<td>61%</td>
</tr>
<tr>
<td>Lake Shasta</td>
<td>4.23</td>
<td>4.55</td>
<td>93%</td>
</tr>
<tr>
<td>Lake Oroville</td>
<td>3.41</td>
<td>3.54</td>
<td>96%</td>
</tr>
<tr>
<td>Folsom Lake</td>
<td>0.83</td>
<td>0.98</td>
<td>85%</td>
</tr>
<tr>
<td>New Melones</td>
<td>0.62</td>
<td>2.40</td>
<td>26%</td>
</tr>
<tr>
<td>Don Pedro</td>
<td>1.37</td>
<td>2.03</td>
<td>68%</td>
</tr>
<tr>
<td>Exchequer</td>
<td>0.49</td>
<td>1.02</td>
<td>47%</td>
</tr>
<tr>
<td>San Luis</td>
<td>0.95</td>
<td>2.04</td>
<td>46%</td>
</tr>
<tr>
<td>Millerton Lake</td>
<td>0.30</td>
<td>0.52</td>
<td>57%</td>
</tr>
<tr>
<td>Pine Flat</td>
<td>0.52</td>
<td>1.00</td>
<td>52%</td>
</tr>
<tr>
<td>Castaic Lake</td>
<td>0.18</td>
<td>0.33</td>
<td>54%</td>
</tr>
<tr>
<td>Lake Perris</td>
<td>0.05</td>
<td>0.13</td>
<td>36%</td>
</tr>
<tr>
<td>Silverwood</td>
<td>0.07</td>
<td>0.08</td>
<td>88%</td>
</tr>
</tbody>
</table>

CA DWR Reservoirs (SWP)
Storage in Million Acre Feet

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Storage</th>
<th>Capacity</th>
<th>% Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powell</td>
<td>11.04</td>
<td>24.30</td>
<td>45%</td>
</tr>
<tr>
<td>Mead</td>
<td>9.67</td>
<td>26.12</td>
<td>37%</td>
</tr>
<tr>
<td>DVL</td>
<td>0.35</td>
<td>0.81</td>
<td>43%</td>
</tr>
</tbody>
</table>

MWD Reservoirs (CRA)
Storage in Million Acre Feet

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Storage</th>
<th>Capacity</th>
<th>% Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powell</td>
<td>11.04</td>
<td>24.30</td>
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</tr>
<tr>
<td>DVL</td>
<td>0.35</td>
<td>0.81</td>
<td>43%</td>
</tr>
</tbody>
</table>

Blue - Increase in storage since the last report.
Snowpack (Snow Water Content [SWE] as of May 3, 2016)
Northern Sierra Nevada – 11.8 inches, 62% of average to date and 42% of the April 1st average.
Central Sierra Nevada – 15.1 inches, 67% of average to date and 52% of the April 1st average.
Southern Sierra Nevada – 19.1 inches, 46% of average to date and 35% of the April 1st average.

Groundwater Levels
Groundwater levels in key monitoring wells are shown in the hydrographs below. Central Basin Key Well 1601T is between the two spreading grounds and rises rapidly with rainfall and replenishment but falls sharply during dry spells and lack of replenishment. Groundwater levels in the well increased 3.3 feet since the last report. West Coast Basin Key Well Carson #1 is in the confined aquifers and does not respond readily to rainfall but instead to changes in pumping patterns and barrier recharge. Water levels increased 0.53 foot since the last report.
Montebello Forebay Spreading Grounds (October 1, 2015 - March 31, 2016)
The following Chart shows the preliminary spreading grounds replenishment water to date:

Delivery of the District’s imported water order of 19,635 acre-feet with Central Basin Municipal Water District (CBWMD) began on December 2, 2015, and an order of 4,335 acre-feet with the City of Long Beach Water Department began in April for a total request of 23,970 acre-feet. MWD terminated the imported water deliveries on March 31, 2016, for a total delivered amount of 23,961 AF. MWD attributed the shortfall to a miscalculation of when the valve should be closed.

Preliminary numbers for the first half of the water year show that 30,587 acre-feet of recycled water has been recharged, which is above the YTD target amount of 27,500 acre-feet. The 120-month running average of recycled water contribution in the Montebello Forebay is 36.4% and the regulatory maximum is 45%.
Local water (stormwater plus dry weather urban runoff) is captured by the Los Angeles County Department of Public Works (DPW) at the spreading grounds for recharge. The low amounts this year due to a dry winter have been offset by the combined purchases and deliveries of imported and recycled water by WRD. Local water amounts are determined as the sum of the total waters conserved at the spreading grounds less the imported and recycled water deliveries. Local water received through the end of March is 12,564 acre-feet based on this analysis.

Seawater Barrier Well Injection and Replenishment (October 1, 2015 - March 31, 2016): The following Chart shows the barrier water injection to date:

![Chart showing barrier water injection]

Preliminary numbers for the first half of the water year show that the West Coast Barrier used 309 acre-feet of imported water and 6,442 acre-feet of recycled water, or 95% recycled water. The Dominguez Gap Barrier used 1,476 acre-feet of imported water and 1,860 acre-feet of recycled water, or 56% recycled water. The Alamitos Barrier on the WRD side used an estimated 1,745 acre-feet of imported water and 358 acre-feet of recycled water, or 17% recycled water.

In-Lieu Replenishment Water
No In-Lieu replenishment water has been delivered to date in the current water year.
Pumping (October 1, 2015 – February 29, 2016)

Preliminary numbers for groundwater production in the District through February 2016 indicate that 85,204 acre-feet were pumped compared to 82,927 acre-feet the year previous, or an increase of 2,278 acre-feet (2.7%). In the Central Basin, pumping was 3,418 acre-feet higher than the previous water year (5.0%) and the West Coast Basin was down 1,140 acre-feet from the previous water year (-7.7%). The Chart below shows the 2015/16 Water Year pumping versus the 2014/15 Water Year.

FISCAL IMPACT
For information.

STAFF RECOMMENDATION
For information.