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, JUNE 8, 2016

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
Pursuant to Government Code Section 54954.3.

3. APPROVAL OF THE MINUTES OF MAY 11, 2016
   Staff Recommendation: Approve as submitted.

4. OPERATIONS UPDATE
   Staff Recommendation: For information.

5. GROUNDWATER BASIN UPDATE
   Staff Recommendation: For information.

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

7. ADJOURNMENT
   The Water Resources Committee will adjourn to its next regular meeting
currently scheduled for July 13, 2016 at 11:00 a.m.

Agenda posted by Chief Financial Officer Scott Ota on June 7, 2016.
MEETING OF THE WATER RESOURCES COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CALIFORNIA 90712
11:00 A.M., WEDNESDAY, MAY 11, 2016

A meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on Wednesday, May 11, 2016 at 11:09 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Director Robert 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 Robert Katherman and John D.S. Allen
   Staff: Ken Ortega, Ted Johnson, Paul Fu and Everett Ferguson

2. PUBLIC COMMENT
None

3. MINUTES OF THE SPECIAL MEETING APRIL 13, 2016
The minutes were unanimously approved as submitted.

4. OPERATIONS UPDATE
Senior Engineer Paul Fu provided a summary of operations at both the Goldsworthy Desalter and the Leo J. Vander Lans Water Treatment Facility.

Operations at the Goldsworthy Desalter was offline most of April to accommodate for valve drilling activities and disinfection. The facility resumed operations in late April, after the completion of the City Yard well drilling. A total of 15 acre feet (AF) of potable water was supplied to City of Torrance during the month. Pipeline is approximately 90% complete with construction and it is expected that the street work will be done by the end of next week.

Dr. Fu reported that the flow at Leo J. Vander Lans treatment plant was shut down for about 10 days to take care of a maintenance issue. The plant resumed operations in early May and has been running well.

Dr. Fu also provided a report about the Engineering Study to Optimize Barrier/LVL Operations. On April 28th, the Board of Directors authorized staff to initiate negotiations with RMC consultants for a scope of work and fees to conduct the study. Staff will bring this item back to the CIP Committee in late May.
Director Allen requested regular updates at the Water Resources Committee meetings regarding RMC contract negotiations.

Mr. Ortega provided the update about the turnout structures. The project is nearing completion. Discussion followed. Final notice of completion should be filed for the project in May.

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

Mr. Ortega gave a brief overview of the previously approved and ongoing contract with Ruth Villalobos & Associates. The contract was initially for three years, but the District, in partnership with the Los Angeles County Department of Public Works has since been approved by the United States Army Corps of Engineers to submit a request for a five-year temporary deviation to raise the level approximately 3.5 feet and allow for an estimated additional 1,100 acre-feet per year of storm water conservation. The current contract with Ruth Villalobos & Associates is set to expire on June 30, 2016. Mr. Ortega stated that an extension of the termination date of the contract to December 31, 2016 to complete the Deviation Request Package and accommodate the requests from the USACE would be appropriate.

Discussion followed.

The Committee unanimously approved extension of the termination date of the contract to December 31, 2016 to complete the DRP and accommodate the requests from the USACE; and to allow a fee adjustment increase of $13,000.

6. GROUNDWATER BASIN UPDATE

Senior Hydrogeologist Everett Ferguson highlighted the following in his report:

- Precipitation – precipitation as of May 3, 2016 was 6.76 inches. Normal for this time of year is 14.86 inches, or 45% of normal. Mr. Ferguson also reported that approximately 74% of the state continues to be under severe to exceptional drought conditions, as of April 26, 2016.
- Snowpack – snow measurements as of May 3, 2016 were as follows: Northern Sierra Nevada snowpack was 11.8 inches or 62% of average and 42% of the April 1st average; Central Sierra Nevada snowpack was 15.1 inches or 67% of average and 52% of the April 1st average. Southern Sierra Nevada snowpack was 19.1 inches or 46% of average and 35% of the April 1st average.
- Groundwater levels - groundwater levels in Central Basin Key Well 1601T increased 3.3 feet since the last report (April 15 was peak); West Coast Basin Key Well Carson #1 increased 0.53 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, 2015. In addition, an order of 4,335 acre-feet was made with the City of Long Beach Water Department in April for a total from both
agencies of 23,970 acre-feet. MWD terminated imported water deliveries on March 31, 2016 for a total delivered amount of 23,961 acre-feet. MWD attributed the shortfall to a valve miscalculation. Preliminary numbers for the first half of the 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 received through the end of March is 12,564 acre-feet based on this analysis.

Discussion followed. Directors Katherman and Allen would like to see studies conducted by Staff regarding the long-term prognosis for precipitation and storm water capture in the WRD service area taking into account climate change models and predictions. Staff will do the analysis and report back to the Committee at a later meeting.

Mr. Ferguson continued with his report.

- Seawater Barrier for the period October 1, 2015-March 31, 2016 the West Coast Barrier used 309 acre-feet of imported water and 6,442 acre-feet of recycled water or 95% recycled water; Dominguez Gap Barrier used 1,476 acre-feet of imported water and 1,860 acre-feet of recycled water or 56% recycled water; Alamitos Barrier used 1,745 acre-feet of imported water and 358 acre-feet of recycled water or 17% recycled water.
- In-Lieu Replenishment – no in-lieu replenishment water has been delivered to date in the current water year
- Pumping – preliminary numbers for groundwater production 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 or 2.7%. In the Central Basin, pumping was 3,418 acre-feet higher than the previous water year or 5.0% and the West Coast Basin was down 1,140 acre-feet from the previous water year or -7.7%.

7. DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF
Director Allen requested a report about the basins, to include how the water is pumped, what can and cannot be pumped, the order of pumping, and so forth. Staff suggested having Water Master Jason Weeks provide a “refresher” presentation on pumping rights, pumping processes and other pumping-related knowledge share.

Director Katherman would like to have the Committee discuss Water Purchase Carryover Fund as an agenda item. Discussion followed.
8. **ADJOURNMENT**
With no other business to come before the Committee, the meeting was adjourned at 12:06 P.M.

__________________________________________
Chair

ATTEST:

_________________________
Member

Approved in minutes of:

_________________________
DATE: JUNE 8, 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 reconciling change order and notice of completion should be completed and filed, respectively, for the project in June.

Robert W. Goldsworthy Desalter Update

The Desalter was partially offline for the month of May 2016 for chemical cleaning of the RO membranes and to facilitate Desalter expansion construction related activities. A total of 44 acre feet (AF) of treated potable water was supplied to the City of Torrance during the month.

Leo J. Vander Lans Facility (LVL) Update

LVL Operations. The LVL facility was operated in a 24/7 mode for most of May 2016 except for 6 days to perform maintenance and troubleshoot the microfiltration control system. The Barrier injection quantity in May was approximately 522 AF, including 257 AF of recycled water and 265 AF of imported water. 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 negotiations with RMC Consultants for a final scope of work, schedule, and fees to conduct the aforementioned study. Staff plans to present the final draft agreement to the CIP Committee on June 9th.

**STAFF RECOMMENDATION**
For information.
MEMORANDUM

ITEM NO. 5

DATE: JUNE 8, 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 26, 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 15.13 inches, so the District is 45% of normal. Approximately 61% of the State continues to be under severe to exceptional drought conditions as reported by the U.S. Drought Monitor (as of May 24, 2016).

Reservoirs (as of May 25, 2016)

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Storage</th>
<th>Capacity</th>
<th>% Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA DWR Reservoirs (SWP)</td>
<td>Storage in Million Acre Feet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trinity Lake</td>
<td>1.40</td>
<td>2.45</td>
<td>57%</td>
</tr>
<tr>
<td>Lake Shasta</td>
<td>4.18</td>
<td>4.55</td>
<td>92%</td>
</tr>
<tr>
<td>Lake Oroville</td>
<td>3.33</td>
<td>3.54</td>
<td>94%</td>
</tr>
<tr>
<td>Folsom Lake</td>
<td>0.84</td>
<td>0.98</td>
<td>86%</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>1.52</td>
<td>2.03</td>
<td>75%</td>
</tr>
<tr>
<td>Exchequer</td>
<td>0.57</td>
<td>1.02</td>
<td>56%</td>
</tr>
<tr>
<td>San Luis</td>
<td>0.75</td>
<td>2.04</td>
<td>37%</td>
</tr>
<tr>
<td>Millerton Lake</td>
<td>0.34</td>
<td>0.52</td>
<td>65%</td>
</tr>
<tr>
<td>Pine Flat</td>
<td>0.63</td>
<td>1.00</td>
<td>63%</td>
</tr>
<tr>
<td>Castaic Lake</td>
<td>0.20</td>
<td>0.33</td>
<td>62%</td>
</tr>
<tr>
<td>Lake Perris</td>
<td>0.04</td>
<td>0.13</td>
<td>35%</td>
</tr>
<tr>
<td>Silverwood</td>
<td>0.07</td>
<td>0.08</td>
<td>88%</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>11.79</td>
<td>24.30</td>
<td>49%</td>
</tr>
<tr>
<td>Mead</td>
<td>9.52</td>
<td>26.12</td>
<td>36%</td>
</tr>
<tr>
<td>DVL</td>
<td>0.39</td>
<td>0.81</td>
<td>48%</td>
</tr>
</tbody>
</table>

Blue - Increase in storage since the last report.
Snowpack (Snow Water Content [SWE] as of May 25, 2016)
Northern Sierra Nevada – 2.8 inches, 31% of avg. for date and 10% of the April 1st average.
Central Sierra Nevada – 4.6 inches, 37% of avg. for date and 16% of the April 1st average.
Southern Sierra Nevada – 2.6 inches, 21% of avg. for date and 10% 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 decreased 1.5 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 0.5 foot since the last report.
The District has imported a total of 23,961 acre-feet of import water this water year and no other orders are pending until next water year (starting October 1st).

Preliminary numbers for the first 7 months of the water year show that 35,738 acre-feet of recycled water has been recharged, which is above the YTD target amount of 32,083 acre-feet. The 120-month running average of recycled water contribution in the Montebello Forebay is 37.0% 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 April is 12,023 acre-feet based on this analysis.
Seawater Barrier Well Injection and Replenishment (October 1, 2015 - April 30, 2016): The following Chart shows the barrier water injection to date:

Preliminary numbers for the first seven months of the water year show that the West Coast Barrier used 437 acre-feet of imported water and 7,531 acre-feet of recycled water, or 95% recycled water. The Dominguez Gap Barrier used 1,773 acre-feet of imported water and 2,107 acre-feet of recycled water, or 54% recycled water. The Alamitos Barrier on the WRD side used an estimated 2,038 acre-feet of imported water and 393 acre-feet of recycled water, or 16% 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 – March 31, 2016)
Preliminary numbers for groundwater production in the District through March 2016 indicate that 102,386 acre-feet were pumped compared to 98,771 acre-feet the year previous, or an increase of 3,615 acre-feet (3.7%). In the Central Basin, pumping was 5,736 acre-feet higher than the previous water year (7.1%) and the West Coast Basin was down 2,121 acre-feet from the previous water year (-11.7%). The Chart below shows the 2015/16 Water Year pumping versus the 2014/15 Water Year.

FISCAL IMPACT
For information.

STAFF RECOMMENDATION
For information.