AGENDA

Each item on the agenda, no matter how described, shall be deemed to include any appropriate motion, whether to adopt minute motion, resolution, payment of any bill, approval of any matter or action, or any other action. Items listed as "For information" or "For discussion" may also be the subject of an "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. APPROVE MINUTES OF JUNE 25, 2018 SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE
   Staff Recommendation: The Water Resources Committee will approve minutes as submitted.

4. REGIONAL BRACKISH WATER RECLAMATION PROGRAM ADVISORY GROUP DISCUSSION
   Staff Recommendation: For discussion and possible action.

5. BRIEF SUMMARY OF WATERREUSE WEBINAR ENTITLED "POTABLE REUSE USING OZONE-BIOFILTRATION"
   Staff Recommendation: The Water Resources Committee will receive and file the report.

6. OPERATIONS UPDATE
   Staff Recommendation: The Water Resources Committee will receive and file the report.

7. GROUNDWATER BASIN UPDATE
   Staff Recommendation: The Water Resources Committee will receive and file the report.

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

9. ADJOURNMENT
   The Water Resources Committee will adjourn to the next regularly scheduled meeting.
In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact Deputy Secretary 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 District office before the District’s final action on a matter will become a part of the administrative record.
MEMORANDUM
ITEM NO. 3

DATE: OCTOBER 16, 2018
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: APPROVE MINUTES OF JUNE 25, 2018 SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE

SUMMARY

A special meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on June 25, 2018 at 10:42 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Robert Katherman called the meeting to order and presided thereafter. Senior Administrative Specialist Sherri Brown recorded the minutes.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

The Water Resources Committee will approve minutes as submitted.
MINUTES OF JUNE 25, 2018
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 June 25, 2018 at 10:42 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Robert Katherman called the meeting to order and presided thereafter. Senior Administrative Specialist Sherri Brown recorded the minutes.

1. DETERMINATION OF A QUORUM
A quorum was present, which included:
Committee: Committee Chair Robert Katherman; President John D.S. Allen
Staff: Ken Ortega; Ted Johnson; Charlene King; Everett Ferguson; Brian Partington; Lyndsey Bloxom
Public: Maria Kennedy – Kennedy Communications; Rafael Villegas – LADWP; Kyle Miller – Paramount Chamber of Commerce

2. PUBLIC COMMENT
Pursuant to Government Code Section 54954.3
None.

3. APPROVE MINUTES OF MAY 17, 2018 SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE
The Water Resources Committee unanimously approved the minutes as submitted.

4. APPROVE MINUTES OF APRIL 23, 2018 MEETING OF THE WATER RESOURCES COMMITTEE
The Water Resources Committee unanimously approved the minutes as submitted.

5. WATER RESEARCH FOUNDATION ANNUAL MEMBERSHIP RENEWAL
Upon a motion duly made by President Allen, seconded by Director Katherman and unanimously approved, it was

RESOLVED: The Water Resources Committee recommended the Board of Directors authorize the General Manager to renew membership with the Water Research Foundation for an amount not to exceed $57,459 for the period of October 2017 to September 2018.

This will be a regular item for review and approval on the agenda of the Board of Directors meeting.
6. **WEST ORANGE COUNTY ENHANCED PUMPING PROJECT**  
Chief Hydrogeologist Ted Johnson provided a briefing on an Orange County Feasibility Study that has been produced and WRD is tracking. Discussion followed.

Mr. Johnson reported that staff will come back to the Committee with results after meeting with West Orange County’s General Manager and their staff, and more information gathering. The Committee asked that staff arrange a meeting between WRD General Manager Robb Whitaker and President Allen, Director Katherman prior to the Monday meeting with Orange County.

No action was taken.

7. **TIME EXTENSION FOR CONTRACT SERVICES AGREEMENT WITH CITY OF TORRANCE FOR ROBERT W. GOLDSWORTHY DESALTER**  
Upon a motion duly made by President Allen, seconded by Director Katherman and unanimously approved, it was

RESOLVED: The Water Resources Committee recommended the Board of Directors extend the Contract Services Agreement one additional year with the City of Torrance for the Robert W. Goldsworthy Desalter through June 30, 2019, subject to approval as to form by District Counsel.

This item will be on the Consent Calendar of the agenda for review and approval at the Board of Directors meeting.

8. **DIRECT POTABLE REUSE INITIATIVE PLEDGE REQUEST**  
Engineer Diane Gatza provided the report.

Upon a motion duly made by President Allen, seconded by Director Katherman and unanimously approved, it was

RESOLVED: The Water Resources Committee recommended the Board of Directors authorize a pledge of $110,000 to Water Research Foundation in the amount not to exceed $110,000.

The Committee requested that this be a regular item for review and approval on the agenda of the Board of Directors meeting and that staff be prepared to discuss this item at that time.

9. **OPERATIONS UPDATE**  
Senior Hydrogeologist Everett Ferguson provided a report on the Terminal Island Water Reclamation Plant expansion. Discussion followed.

Assistant General Manager Ken Ortega provided the update on the Torrance Desalter. The Committee requested that staff send an email with updates on the Torrance Desalter completion of the Operation Optimization Plan (OOP).
Mr. Ortega presented the Leo J. Vander Lans (LVL) update. Ms. Gatza added to the update and overview of three projects at the Desalter that are in need of replacements or upgrading. Discussion followed. The Committee requested that staff have discussions with Perc Water and others about getting a fee quote to run LVL operations in addition to the Albert Robles Center.

Ms. Gatza reported that WRD has been working with Los Angeles Department of Water and Power (LADWP) on several efforts. She said they have developed a draft non-binding MOU for review that will be brought back to the Committee after WRD’s legal counsel reviews and makes revisions.

Rafael Villegas of LADWP provided an overview of the agency’s plans and goals for the partnership to the Committee. Mr. Ortega added that this was a major initiative for the Mayor’s office and LADWP lead officials. Discussion followed.

Mr. Ortega provided an update on Sativa Water District. He said WRD continues to work on the Water Quality Action Plan and assisting them with the Wellhead Treatment Plan. Maria Kennedy of Kennedy Communications reported that a planning grant was secured and State Board has asked the District to conduct a consolidation study (for consolidating facilities), like WRD did with Maywood Mutual Water Company#2. Discussion followed.

Ms. Kennedy stated that she and staff have been meeting with the Congresswoman, and said she has asked about Water Infrastructure Finance and Innovation Act (WIFIA) funding which enables large agencies to take on SRF-type loans for Disadvantaged Communities. Discussion followed. The Committee gave staff a preliminary go-ahead to draft a letter for WIFIA, and bring it back to the Groundwater Quality Committee meeting for review. President Allen requested that the meeting scheduled for July 11th be changed to Tuesday, July 10th at 9:30 A.M.

Ms. Kennedy reported that the State Board has indicated that the contract for Maywood Mutual #2 is on track to receive $2M, and expected to receive it this or next week. She said the contract will be brought in for signatures from the WRD Board members as soon as it is received. Discussion followed.

Manager of External Affairs Pete Brown will try to set up a meeting for Wednesday afternoon with LA County Supervisor Janice Hahn, President Allen, Director Katherman and WRD General Manager Robb Whitaker to discuss.

The Water Resources Committee received and filed the report.

10. GROUNDWATER BASIN UPDATE
Mr. Ferguson provided a recycled water contribution report projecting forward, as was previously requested by the Water Resources Committee. Discussion followed.

Mr. Johnson reported on the Water Purchase Carryover Fund, which was also previously requested by the Water Resources Committee. Discussion followed.
The Committee asked staff to come back with recommendations regarding the Carryover Fund for purchasing water.

The Water Resources Committee received and filed the report.

11. DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF
The Water Resources Committee requested that staff provide them with a map that shows where all of the current Safe Drinking Water-Disadvantaged Communities are located.

12. ADJOURNMENT
There being no further business to come before the Committee, the meeting was adjourned at 12:42 P.M.

____________________________________
Chair

ATTEST:

____________________________________
Member

Approved in minutes of:

____________________________________
MEMORANDUM
ITEM NO. 4

DATE: OCTOBER 16, 2018

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: REGIONAL BRACKISH WATER RECLAMATION PROGRAM ADVISORY GROUP DISCUSSION

SUMMARY
The Water Replenishment District of Southern California (WRD) is responsible for managing and replenishing both the West Coast and Central Basins. Within the West Coast Basin a significant plume (approx. 600,000 acre feet) of high Total Dissolved Solids (TDS) has been trapped due to seawater intrusion and the implementation of the West Coast Seawater Intrusion Barrier. WRD has initiated a Regional Brackish Water Reclamation Program (Program) through the Groundwater Basin’s Master Plan to evaluate ways to remediate the basin.

WRD has now initiated a regional planning effort to evaluate the feasibility of remediating the high TDS plume with six additional stakeholders (Stakeholder Group) who pump and wholesale potable water within the basin. The West Coast Basin stakeholder group consists of seven agencies and WRD. A Feasibility Study has been identified as the first step to determining how to remediate this plume to allow for future groundwater use within the basin.

WRD is considering creating an advisory group to participate in the moving forward on plans to clean the brackish plume in an effort to maximize the use of groundwater in the basin and for creating new storage space for future groundwater storage.

FISCAL IMPACT
None

STAFF RECOMMENDATION
For discussion and possible action.
MEMORANDUM
ITEM NO. 5

DATE: OCTOBER 16, 2018

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: BRIEF SUMMARY OF WATERUSE WEBINAR ENTITLED "POTABLE REUSE USING OZONE-BIOFILTRATION"

SUMMARY

On September 26, 2018, WaterUse held a webinar entitled "Potable Reuse Using Ozone-Biofiltration" relating to reuse research effort by Gwinnett County just north of Atlanta, Georgia. A brief summary of this presentation will be provided to the committee.

FISCAL IMPACT

No fiscal impact.

STAFF RECOMMENDATION

The Water Resources Committee will receive and file the report.
DATE:          OCTOBER 16, 2018
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.

Terminal Island Water Reclamation Plant (TIWRP) / Dominguez Gap Barrier Project (DGBP) Update

Highlights from the TIWRP / DGBP include the following:

• LASAN has not been able to deliver recycled water due to continued issues the AOP Unit maintenance. LASAN is continuing to work with the manufacturer on resolving this and hopes to resume production by the end of the month.
• Since it fixed the July Barrier leak, the County has been operating the at full capacity using imported water.

Torrance Desalter Update

Highlights from the Torrance Desalter include the following:

• Production averaged 56 million gallons for the month of September with a plant on-line factor of 97%.
• Staff is currently working to address mechanical issues associated with the high pressure feed pump on Reverse Osmosis (RO) Train #1. The motor is currently being schedule for removal and inspection.
Based on a review of RO operational performance, staff requested that the City of Torrance Operations increase RO system production to 2.2 million gallons per day.

WRD staff (with assistance from the City of Torrance Operations) is currently working toward implementation a Computerized Maintenance Management System (CMMS) at the Desalter within the next few months – the same system that was implemented at the Leo J. Vander Lans facility in June of this year.

Leo J. Vander Lans Facility (LVL) Update

Highlights from the LVL facility include the following:

• Facility remains off-line due to insufficient source water from the Long Beach Water Reclamation Plant. Anticipated restoration remains late November/early December.
• Staff from the Long Beach Water Department (LBWD) and WRD continue to meet on a weekly basis to review and address the list of action items for correction in preparation for a plant restart.
  o On-call engineering services were employed to assist, and RFPs have been released for teams within the service pool.
• Computerized Maintenance Management System (CMMS) continues to be utilized with oversight and support from WRD staff. To date, 311 electronic work orders (for maintenance-related issues) have been entered and/or processed through the system.
  o Assetics kickoff workshop was held the week of September 17th. Assetics is a software module that provides asset replacement/budget forecasting based on equipment service history, condition of the equipment and the associated risk of equipment failure.
• During the month of September 2018, 627 acre-feet (AF) of imported water from the LB07A connection was used to satisfy the barrier demand (vs. 412.5 AF the previous month).
  o Current barrier injection is approximately 5.70 mgd of imported water.

FISCAL IMPACT

No Impact

WATER RESOURCES COMMITTEE RECOMMENDATION

The Water Resources Committee will receive and file the report.
DATE: OCTOBER 16, 2018

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: GROUNDWATER BASIN UPDATE

SUMMARY

WRD Hydrogeology staff monitors groundwater conditions in its service area throughout the year. A summary of the latest conditions is attached as the monthly Groundwater Basin Update.

FISCAL IMPACT

None at this time.

STAFF RECOMMENDATION

The Water Resources Committee will receive and file the report.
SUMMARY

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

Precipitation (as of September 30, 2018)
The WRD precipitation index reports that for the 2017-18 Water Year, there has been 4.63 inches of rainfall. The normal rainfall for this time period is 15.74 inches, so the District is 29% of normal. As of October 2, 2018, the U.S. Drought Monitor is reporting 88% of the State is abnormally dry, 48% is under drought conditions, 23% of the State is under severe drought conditions including most of Los Angeles County, and 5% of the State is under extreme drought (in portions of eastern Riverside, eastern San Bernardino, and Imperial Counties).
Reservoirs (as of October 8, 2018)

For all 16 reservoirs reported monthly to the committee, water levels have lowered in 12 reservoirs compared to levels recorded in the previous month. The largest decrease (-0.37 million acre feet) occurred at Lake Powell. The smallest decrease (0.01 million acre feet) occurred at Castaic Lake. Levels rose at the San Luis Reservoir (0.14 million acre feet), Millerton Lake (<0.01 million acre feet), Lake Perris (<0.01 million acre feet), Lake Silverwood (<0.01 million acre feet), Lake Mead (0.03 million acre feet) and Diamond Valley Lake (<0.01 million acre feet).

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Capacity</th>
<th>Storage</th>
<th>% Full</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinity Lake</td>
<td>2.45</td>
<td>1.49</td>
<td>61%</td>
<td>-0.06</td>
</tr>
<tr>
<td>Lake Shasta</td>
<td>4.55</td>
<td>2.36</td>
<td>52%</td>
<td>-0.24</td>
</tr>
<tr>
<td>Lake Oroville</td>
<td>3.54</td>
<td>1.31</td>
<td>37%</td>
<td>-0.21</td>
</tr>
<tr>
<td>Folsom Lake</td>
<td>0.98</td>
<td>0.45</td>
<td>46%</td>
<td>-0.04</td>
</tr>
<tr>
<td>New Melones</td>
<td>2.40</td>
<td>1.78</td>
<td>74%</td>
<td>-0.03</td>
</tr>
<tr>
<td>Don Pedro</td>
<td>2.03</td>
<td>1.49</td>
<td>74%</td>
<td>-0.07</td>
</tr>
<tr>
<td>Lake McClure</td>
<td>1.02</td>
<td>0.60</td>
<td>59%</td>
<td>-0.07</td>
</tr>
<tr>
<td>San Luis</td>
<td>2.04</td>
<td>1.16</td>
<td>57%</td>
<td>0.14</td>
</tr>
<tr>
<td>Millerton Lake</td>
<td>0.52</td>
<td>0.28</td>
<td>53%</td>
<td>0.00</td>
</tr>
<tr>
<td>Pine Flat</td>
<td>1.00</td>
<td>0.23</td>
<td>23%</td>
<td>-0.03</td>
</tr>
<tr>
<td>Castaic Lake</td>
<td>0.33</td>
<td>0.27</td>
<td>84%</td>
<td>-0.01</td>
</tr>
<tr>
<td>Lake Perris</td>
<td>0.13</td>
<td>0.10</td>
<td>79%</td>
<td>0.00</td>
</tr>
<tr>
<td>Silverwood</td>
<td>0.08</td>
<td>0.07</td>
<td>92%</td>
<td>0.00</td>
</tr>
</tbody>
</table>

MWD Reservoirs (CRA)

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Capacity</th>
<th>Storage</th>
<th>% Full</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powell</td>
<td>24.30</td>
<td>10.98</td>
<td>45%</td>
<td>-0.37</td>
</tr>
<tr>
<td>Mead</td>
<td>26.12</td>
<td>9.96</td>
<td>38%</td>
<td>0.03</td>
</tr>
<tr>
<td>DVL</td>
<td>0.81</td>
<td>0.71</td>
<td>87%</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Orville Spillway Update – All concrete on the main spillway is scheduled for completion by Nov. 1. Finishing, curing, and sealing plus sidewall backfill and clean-up on the main spillway will continue after Nov. 1. As of 9/26/18:

- 76% of the upper chute is complete.
- 95% of the middle chute is complete, due to weather impacts (hot & high winds) the slab surface did not meet specifications and will be removed and replace. This work will not impact the schedule.
- Repair work on the energy dissipaters at the base of the main spillway is 65% complete.
- Work on the emergency spillway is 85% complete and work at the emergency spillway base buttress will begin in October. Work on the emergency spillway is not contingent of the main spillway schedule and will continue past Nov. 1.
Groundwater Levels (through October 5, 2018)
Groundwater levels in key monitoring wells are shown in the hydrographs below.

<table>
<thead>
<tr>
<th>Well Name</th>
<th>Since Last Month</th>
<th>Since Same Time the Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Basin Key Well 1601T</td>
<td>Decreased 1.8 feet</td>
<td>Decreased 19.0 feet</td>
</tr>
<tr>
<td>Central Basin Key Well Long Beach #6_4</td>
<td>Decreased 1.6 feet</td>
<td>Decreased 10.1 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Lawndale #1_4</td>
<td>Increased 0.04 feet</td>
<td>Increased 4.0 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Carson #1_2</td>
<td>Decreased 1.6 foot</td>
<td>Increased 6.8 feet</td>
</tr>
</tbody>
</table>

Central Basin Key Well Long Beach #6 and West Coast Basin Key Wells Lawndale #1 & Carson #1 are in a confined aquifer and do not respond readily to rainfall but instead to changes in pumping patterns and barrier recharge.

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.
Montebello Forebay Spreading Grounds (October 2017 - August 2018)
The following Chart shows the preliminary spreading grounds replenishment water to date:

The District placed an order for 5,300 acre-feet of imported water for replenishment in Water Year 2017-18 to complete the 38,000 acre-feet order from earlier in 2017. The imported water delivery began on December 6th and was completed on December 17th with a total of 5,286 AF of Imported Water delivered. An order for an additional 4,500 acre-feet was placed in April with 4,506 acre-feet of Imported Water delivered for a total of 9,792 acre-feet.

Preliminary numbers for the first eleven months of the 2017-18 Water Year show that 53,450 acre-feet of recycled water has been recharged, which is above the year to date target amount of 50,950 acre-feet. The 120-month running average of recycled water contribution in the Montebello Forebay is 38.8% and the regulatory maximum is 45%, with additional studies and monitoring being required once 40% is reached.
Local water (stormwater plus dry weather urban runoff) is captured by the Los Angeles County Department of Public Works (LACDPW) at the spreading grounds for recharge. Local water amounts are determined as the sum of the total waters conserved at the spreading grounds less the imported and recycled water deliveries. For the first eleven months of the 2017-18 Water Year, 5,232 acre-feet of local water capture has been reported by the LACDPW.

Seawater Barrier Well Injection and Replenishment (October 2017 - August 2018)
The following Chart shows the barrier water injection to date:

![Seawater Barrier Recharge Chart]

Preliminary numbers for the first eleven months of the 2017-18 Water Year show that the West Coast Barrier used 2,221 acre-feet of imported water and 11,533 acre-feet of recycled water, or 84% recycled water. The Dominguez Gap Barrier used 3,338 acre-feet of imported water and 3,064 acre-feet of recycled water, or 48% recycled water. The Alamitos Barrier, on the WRD side, used an estimated 2,690 acre-feet of imported water and 119 acre-feet of recycled water, or 4% recycled water.

Pumping (October 2017 - August 2018* and Fiscal Year to Date)
Preliminary numbers for groundwater production in the District for the first eleven months of the 2017-18 Water Year indicate that 201,751 acre-feet were pumped compared to 193,794 acre-feet the year previous, or an increase of 7,957 acre-feet (4.1%). In the Central Basin, pumping was 4,808 acre-feet higher than the previous water year (2.9%) and the West Coast
Basin pumping was up 3,149 acre-feet from the previous water year (11.9%). The Chart below shows Water Year 2017-18 pumping versus Water Year 2016-17.

Preliminary numbers for groundwater production in the District for the Fiscal Year 2018-19 (July 2018 – June 2019) indicate pumping in the Central Basin was up 630 acre-feet from the same time of the previous fiscal year (1.8%) and the West Coast Basin pumping was 1,343 acre-feet lower than the previous fiscal year (-22.1%). The total pumping is 40,205 acre-feet compared to 40,918 acre-feet during the same time the previous year for a decrease of 713 acre-feet, or -1.7%. The current pumping data do not include six Central Basin pumpers and five West Coast Basin pumpers totaling an estimated 485 additional acre-feet.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

The Water Resources Committee receive and file the report.