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" 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 THE MINUTES OF AUGUST 20, 2019
   Staff Recommendation: The Water Resources Committee approve the minutes as submitted.

4. APPROVE THE MINUTES OF SEPTEMBER 17, 2019
   Staff Recommendation: The Water Resources Committee approve the minutes as submitted.

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

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

7. WATER RESOURCES PLANNING UPDATE
   Staff Recommendation: For discussion and possible action.

8. DEPARTMENT REPORT
   Staff Recommendation: For discussion and possible action

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

10. ADJOURNMENT
    The Committee will adjourn to the next meeting currently scheduled on November 19, 2019, at 10:30 a.m.
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 are available at the District’s website, [www.wrd.org](http://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.
DATE: OCTOBER 22, 2019
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: APPROVE THE MINUTES OF AUGUST 20, 2019

SUMMARY
A meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District was held on August 20, 2019 at 10:34 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Robert Katherman called the meeting to order and presided thereafter.

FISCAL IMPACT
None

STAFF RECOMMENDATION
The Water Resources Committee approve the minutes as submitted.
A meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District was held on August 20, 2019 at 10:34 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Robert Katherman called the meeting to order and presided thereafter.

1. DETERMINATION OF A QUORUM
   A quorum was present, which included:
   Committee:  Committee Chair Robert Katherman; President John D.S. Allen;
   Staff: Rob Beste; Ted Johnson; Everett Ferguson; Lyndsey Bloxom;
       Brian Thomas; Lyndsey Bloxom; Tenisha Simeon
   Public: None

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

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

   Assistant General Manager/Chief Operating Officer Rob Beste provided an overview. Mr. Beste stated that the District is in the process of planning a meeting date with the City of Los Angeles for the Terminal Island Water Reclamation Plant (TIWRP). The plant was functioning at 4 mgd at the time of the meeting and would be at 6 mgd by week’s end. Discussion followed.

   Mr. Beste then updated the Committee on the Torrance Desalter, stating that production totaled approximately 59.8 million gallons for the month of July with a plant on-line factor of 87%. Discussion followed.

   Mr. Beste stated that the District will meet with the Long Beach Water Department regarding supply for the Vander Lans facility. Chair Katherman requested that an update be provided at the next CIP meeting schedule for September 12, 2019.

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

   Senior Hydrogeologist Everett Ferguson presented the groundwater basin update. Mr. Ferguson stated that the District was at 54% optimum quantity. Discussion followed.

   No action was taken.
5. AWARD OF PROFESSIONAL SERVICES AGREEMENT WITH WOODARD & CURRAN FOR DEVELOPMENT OF A CUSTOMER PORTAL FOR WATER PRODUCERS AND RIGHTS HOLDERS  

Staff Recommendation: The Water Resources Committee recommends that the Board of Directors approve a Professional Services Agreement, subject to approval as to form by District Counsel, with Woodard & Curran for the development of a customer portal for water producers and rights holders for an amount not to exceed $165,000.

Data and Technology Services Supervisor Evan Lue provided a brief summary on this item.

Upon a motion duly made by Director Allen and seconded by Director Katherman, it was RESOLVED: The Water Resources Committee recommended that the Board of Directors approve a Professional Services Agreement, subject to approval as to form by District Counsel, with Woodard & Curran for the development of a customer portal for water producers and rights holders for an amount not to exceed $165,000.

This will be a regular item for review and approval on the Board of Directors meeting agenda.

6. AMENDMENT WITH ORANGE COUNTY WATER DISTRICT FOR MONITORING WELL ACCESS RELATED TO THE RECYCLED WATER PERMIT FOR THE LEO J. VANDER LANS ADVANCED WATER TREATMENT FACILITY  

Staff Recommendation: The Water Resources Committee recommends that the Board of Directors approve an amendment to the Orange County Water District monitoring well access agreement, subject to approval as to form by District Counsel, to allow access to the monitoring wells through 2024.

Assistant General Manager/Chief Administrative Officer Ted Johnson presented this item.

Upon a motion duly made by Director Allen and seconded by Director Katherman, it was RESOLVED

The Water Resources Committee recommended that the Board of Directors approve an amendment to the Orange County Water District monitoring well access agreement, subject to approval as to form by District Counsel, to allow access to the monitoring wells through 2024

This will be a consent item for review and approval on the Board of Directors meeting agenda.
7. RESOLUTION TO GRANT TOTAL DISSOLVED SOLIDS CREDITS TO SANITATION DISTRICTS OF LOS ANGELES COUNTY FOR LEO J. VANDER LANS ADVANCED TREATED RECYCLED WATER INJECTED INTO THE ALAMITOS SEAWATER BARRIER THAT REMAINS IN THE ORANGE COUNTY GROUNDWATER BASIN  

Staff Recommendation: For discussion and possible action.

Mr. Johnson informed the Committee that the District would be formally stating that the Los Angeles County Sanitation District would be allowed to have total dissolved solids credits. Discussion followed.

Upon a motion duly made by Director Allen and seconded by Director Katherman, the resolution passed 2-0.

Director Katherman requested that the item be brought back to the Committee on September 17.

8. REGIONAL BRACKISH WATER RECLAMATION PROGRAM FEASIBILITY STUDY UPDATE  

Staff Recommendation: For discussion and possible action.

Senior Analyst Lyndsey Bloxom stated that no flaws were found in the program and that there was sufficient demand for it to progress. Discussion followed.

Director Allen requested that the program move forward prior to the end of the calendar year.

Assistant General Manager/Chief Operating Officer Rob Beste will set up a meeting with the Mayor of Manhattan Beach for discussion of the construction of a well at a local middle school.

Ms. Bloxom also stated that the District should expect a formal invite to the opening of the Regional Brackish Pilot Facility on October 10th.

No action was taken.

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

Director Katherman requested that Regional Water Project updates be added to the Committee agenda on a quarterly basis. Discussion followed.

No action was taken.

10. ADJOURNMENT  

There being no further business to come before the Committee, the meeting was adjourned at 11:31 a.m.

___________________________  
Chair
ATTEST:

___________________________

MEMBER

Approved in minutes of:

____________________
MEMORANDUM
ITEM NO. 4

DATE: OCTOBER 22, 2019
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: APPROVE THE MINUTES OF SEPTEMBER 17, 2019

SUMMARY
A meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District was held on September 17, 2019 at 10:46 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Robert Katherman called the meeting to order and presided thereafter.

FISCAL IMPACT
None

STAFF RECOMMENDATION
The Water Resources Committee approve the minutes as submitted.
A meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District was held on September 17, 2019 at 10:46 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Robert Katherman called the meeting to order and presided thereafter.

1. DETERMINATION OF A QUORUM
   A quorum was present, which included:
   Committee: Committee Chair Robert Katherman; President John D.S. Allen;
   Staff: Robb Whitaker; Rob Beste; Ted Johnson; Lawrence Chiu; Diane Gatza; Everett Ferguson; Tom Knoell; Eric Owens; Tenisha Simeon
   Public: Dean Wang – Long Beach Water Department

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

3. APPROVE THE MINUTES OF MAY 21, 2019 Staff Recommendation: The Water Resources Committee approved the minutes as submitted.

   First: Allen
   Second: Katherman
   Discussion: None
   Vote: Katherman, Yes; Allen, Yes
   Result: The Water Resources Committee approved the minutes as submitted.

4. APPROVE THE MINUTES OF JUNE 18, 2019 Staff Recommendation: The Water Resources Committee approved the minutes as submitted.

   First: Allen
   Second: Katherman
   Discussion: None
   Vote: Katherman, Yes; Allen, Yes
   Result: The Water Resources Committee approved the minutes as submitted.

5. APPROVE THE MINUTES OF JULY 16, 2019 Staff Recommendation: The Water Resources Committee approved the minutes as submitted.

   First: Allen
   Second: Katherman
   Discussion: None
   Vote: Katherman, Yes; Allen, Yes
   Result: The Water Resources Committee approved the minutes as submitted.
8. AUTHORIZE CONTRACT AWARDS FOR AS-NEEDED AND ON-CALL PROFESSIONAL HYDROGEOLOGIC CONSULTING SERVICES

Staff Recommendation: The Water Resources Committee recommends that the Board of Directors authorize individual professional service contracts with the following firms to perform As-Needed On-Call professional hydrogeologic consulting services for a not to exceed aggregate budget amount of $1,200,000.

a. Aquilogic
b. Intera
c. GSI Environmental

This item was taken out of order. Assistant General Manager/Chief Administrative Officer Ted Johnson briefly presented this item.

First: Allen
Second: Katherman
Discussion: None
Vote: Katherman, Yes; Allen, Yes
Result: ITEM 8 PASSED

This will be a regular item for review and approval on the Board of Directors meeting agenda.

9. AUTHORIZE CONTRACT AWARDS FOR AS-NEEDED AND ON-CALL HYDROGEOLOGIC FIELD SERVICES

Staff Recommendation: The Water Resources Committee recommends that the Board of Directors authorize individual professional service contracts with the following firms to perform As-Needed On-Call hydrogeologic field services for a not to exceed aggregate budget amount of $225,000.

a. Blaine Tech Services
b. DMJ Consulting Group, Inc.

This item was taken out of order. Mr. Johnson briefly presented this item.

First: Allen
Second: Katherman
Discussion: None
Vote: Katherman, Yes; Allen, Yes
Result: ITEM 9 PASSED

This will be a regular item for review and approval on the Board of Directors meeting agenda.

10. AUTHORIZATION TO EXECUTE AMENDMENT NO. 1 OF PROFESSIONAL SERVICES AGREEMENT WITH KESTREL CONSULTING, INC. TO COMPLETE THE REQUIREMENTS OF ALL OUTSIDE FUNDING ASSOCIATED WITH THE ALBERT ROBLES CENTER ADVANCED WATER TREATMENT FACILITY

Staff Recommendation: The Water Resources Committee recommends that the Board of Directors authorize Amendment No. 1 to Contract No. 947, subject to approval as to form by District Counsel, with Kestrel Consulting, Inc. for additional scope to complete the requirements of all outside funding associated with the ARC AWTF Construction Project for an additional amount not to exceed $7,500.
This item was taken out of order. Assistant General Manager/Chief Administrative Officer Ted Johnson briefly presented this item.

<table>
<thead>
<tr>
<th>First:</th>
<th>Allen</th>
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</thead>
<tbody>
<tr>
<td>Second:</td>
<td>Katherman</td>
</tr>
<tr>
<td>Discussion:</td>
<td>None</td>
</tr>
<tr>
<td>Vote:</td>
<td>Katherman, Yes; Allen, Yes</td>
</tr>
<tr>
<td>Result:</td>
<td>ITEM 10 PASSED</td>
</tr>
</tbody>
</table>

This will be a consent item for review and approval on the Board of Directors meeting agenda.

11. RESOLUTION TO GRANT TOTAL DISSOLVED SOLIDS CREDITS TO SANITATION DISTRICTS OF LOS ANGELES COUNTY FOR LEO J. VANDER LAN'S ADVANCED TREATED RECYCLED WATER INJECTED INTO THE ALAMITOS SEAWATER BARRIER THAT REMAINS IN THE ORANGE COUNTY GROUNDWATER BASIN

**Staff Recommendation:** For discussion and possible action.

This item was taken out of order. Mr. Johnson briefly presented this item.

<table>
<thead>
<tr>
<th>First:</th>
<th>Allen</th>
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</thead>
<tbody>
<tr>
<td>Second:</td>
<td>Katherman</td>
</tr>
<tr>
<td>Discussion:</td>
<td>None</td>
</tr>
<tr>
<td>Vote:</td>
<td>Katherman, Yes; Allen, Yes</td>
</tr>
<tr>
<td>Result:</td>
<td>ITEM 11 PASSED</td>
</tr>
</tbody>
</table>

This will be a regular item for review and approval on the Board of Directors meeting agenda.

12. FY 2019-20 LONG BEACH WATER DEPARTMENT SPECIAL IN-LIEU PROGRAM

**Staff Recommendation:** For discussion and possible action.

This item was taken out of order. Mr. Johnson briefly presented this item. Mr. Johnson stated that the Committee had wanted the District to work separately with the Long Beach Water Department in regards to source water supply for the Vander Lans project.

Assistant General Manager/Chief Operations Officer Rob Beste then provided an overview. Discussion followed.

<table>
<thead>
<tr>
<th>First:</th>
<th>Allen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second:</td>
<td>Katherman</td>
</tr>
<tr>
<td>Discussion:</td>
<td>None</td>
</tr>
<tr>
<td>Vote:</td>
<td>Katherman, Yes; Allen, Yes</td>
</tr>
</tbody>
</table>
Result: The Water Resources Committee recommended to the Board to authorize an in-lieu water agreement with the Long Beach Water Department, subject to approval of form by District Counsel, for fiscal year 2019-2020 in the amount of 5,000 acre feet.

This will be a regular item for review and approval on the Board of Directors meeting agenda.

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

This item was taken out of order.

Senior Hydrogeologist Everett Ferguson provided the groundwater basin update. Director Katherman requested a report back on PFOS-PFOA levels next month.

The Water Resources Committee received and filed the report.

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

Water Operations Superintendent Tom Knoell updated the Committee on the Torrance Desalter and Leo J. Vander Lans facilities.

No action was taken.

13. WATER RESOURCES PLANNING UPDATE Staff Recommendation: For discussion and possible action.

Manager of Water Resources Diane Gatza presented a brief update on the Regional Brackish Water Reclamation Program, the WRD/LADWP Joint Los Angeles Basin Master Plan, the MWD/LACSD Regional Recycled Water Program and various partnership efforts. Discussion followed.

Director Katherman requested that all directors be copied on outgoing water resources planning emails.

No action was taken.

14. DIRECTORS’ REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF
None.

15. ADJOURNMENT
There being no further business to come before the Committee, the meeting was adjourned at 12:14 p.m. to the next meeting scheduled on October 22, 2019 at 10:30 a.m.
MEMORANDUM
ITEM NO. 5

DATE: OCTOBER 22, 2019
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 is continuing to work with the County to maximize flows to the barrier. Current Barrier demand is 5 MGD
- LASAN is continuing to optimize the plant.
- WRD staff is continuing to lead bimonthly operations conference calls with LADWP and LASAN.
- WRD staff is engaged with ongoing discussions with LADWP regarding TITP online time & delivery rate and the two pending construction projects (2nd Gap Connection and Potable Backup System).

Torrance Desalter Update

Highlights from the Torrance Desalter include the following:
Production totaled approximately 30.3 million gallons for the month of September (vs. 46.0 million gallons for August). Reduced production was primarily the result of operating with one source water well – Delthorne Park Well, until rehabilitation work is completed on the City Yard Well. The plant was off-line a total of 10 days due to a chlorine leak on the bulk storage tank and the need for replacing cartridge filters - located upstream of the reverse osmosis (RO) process.

A pilot RO system was received and is presently in the process of being assembled. This system will be used to evaluate peracetic acid – an organic peroxide, as a pretreatment chemical to oxidize organic materials in the water prior to treatment by the RO process.

Leo J. Vander Lans Facility (LVL) Update

Highlights from the LVL facility include the following:

- Source water (from the Long Beach Water Reclamation Plant [LBWRP]) for operations of the LVL facility continues to remain in limited supply.
- During the month of September, staff continues to address issues such as refurbishment of the chemical tank platform, repair of the leak detection system and replacement of original product water pump station motor controllers – all items which are being addressed in advance of restarting the plant in November.
- During the month of September 2019, 497.3 acre-feet (AF) of imported water from the LB07A connection was used to satisfy the barrier demand (vs. 423.1 AF the previous month) and is split between LA County and Orange County.
  - Current Alamitos barrier injection is approximately 6.21 mgd of imported water.

FISCAL IMPACT

None

STAFF RECOMMENDATION

The Water Resources Committee receive and file the report
MEMORANDUM
ITEM NO. 6

DATE: OCTOBER 22, 2019
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: GROUNDWATER BASIN UPDATE

GROUNDWATER BASINS AT A GLANCE*

- Precipitation % of Normal to Date
  Oct. 1 - Sept 30
  - 126% (19.83 in.)

- GW Basin Operating Range
  - Minimum Quantity (0 AF)
  - Optimum Quantity (288K AF)
  - 41%
  - 118K AF

- Basin Pumping (Q)
  August 2019
  - 213,000 AF Budget
    - 40,120 AF
    - 38,564 AF

- FY18-19
  - Central Basin: 4,872 AF
  - West Coast Basin: 35,248 AF

- FY19-20
  - Central Basin: 4,527 AF
  - West Coast Basin: 34,037 AF

- Groundwater Levels - Kev Wells

- WRD Recharge - FY 2019-20
  - Annual Target 125K AF
  - Annual Target 29K AF

* - Preliminary numbers, subject to change.
SUMMARY

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

Precipitation (Oct 1st – Sept. 30th)

The WRD precipitation index reports that for the 2018-19 Water Year, there has been 19.83 inches of rainfall. The normal rainfall for this time period is 15.74 inches, so the District is 126% of normal.

As of October 1, 2019, the U.S. Drought Monitor is reporting 5% of the State is abnormally dry, 2% is under moderate drought conditions.

Reservoirs (as of October 6, 2019)

For all 16 reservoirs reported monthly to the committee, water levels have increased in 4 reservoirs compared to levels recorded in the previous month. Water levels rose the most at Lake Mead (0.02 million acre feet). The largest decrease (-0.52 million acre feet) occurred at Lake Oroville. The smallest decrease (<0.00 million acre feet) occurred at Lake Silverwood.

These 16 reservoirs are at 55% capacity (39.55 million acre feet) which is down from the prior month (-1.57 million acre feet State Water Project [SWP] and -0.40 million acre feet Colorado River Aqueduct [CRA]). The largest contributing factor to the change in reservoir storage is decreases at Lake Oroville (SWP) and Lake Powell (CRA).
Groundwater Levels (through September 27, 2019)

Groundwater levels in key monitoring wells are shown in the hydrographs below.

<table>
<thead>
<tr>
<th>Well Name</th>
<th>Since Last Report</th>
<th>Since Same Time the Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Basin Key Well 1601T</td>
<td>Decreased 4.3 feet</td>
<td>Increased 11.2 feet</td>
</tr>
<tr>
<td>Central Basin Key Well Long Beach #6_4</td>
<td><strong>Increased 3.5 foot</strong></td>
<td>Increased 12.5 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Lawndale #1_4</td>
<td>Decreased 3.3 foot</td>
<td><strong>Decreased 0.6 feet</strong></td>
</tr>
<tr>
<td>West Coast Basin Key Well Carson #1_2</td>
<td><strong>Decreased 0.3 foot</strong></td>
<td>Increased 0.5 feet</td>
</tr>
</tbody>
</table>

**Bold** indicates a change in direction (decreasing or increasing) since the last report.

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.
Optimum and Minimum Groundwater Quantity
In response to a 2002 State audit of the District’s activities, the Board of Directors adopted an Optimum and Minimum Quantity for groundwater in the District to define an appropriate operating range that would sustain adjudicated pumping rights, leave room for future storage projects, and identify a lower limit. The amounts are based on the accumulated overdraft concept, which the District tracks year by year based on changes in groundwater storage.

After an extensive review of over 70 years of water level fluctuations and discussions with the Board and pumping community, Water Year 1999/2000 was recognized as a representative year for the Optimum Quantity, which equated to an accumulated overdraft of approximately 612,000 acre-feet. The Minimum Quantity was defined as an accumulated overdraft of 900,000 acre-feet, which allowed an operating range from 0 acre-feet (minimum) to 288,000 acre-feet (optimum). The Board also adopted a policy to make-up the groundwater deficit should the accumulated overdraft fall too far below the Optimum Quantity.

The Accumulated Overdraft as of September 27, 2019, has been estimated at 782,405 acre-feet (subject to change), which is 117,595 acre-feet above the Minimum Groundwater Quantity and 170,405 acre-feet below the Optimum Quantity.
Montebello Forebay Spreading Grounds (July 2019 - August 2019)

The following Chart shows the preliminary spreading grounds replenishment water:

For the Fiscal Year 2019-20, no imported water purchases are anticipated at this time. 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 two months of the 2019-20 Fiscal Year, approximately 80 acre-feet of local water capture has been reported by the LACDPW.
Preliminary numbers for the first two months of the 2019-20 Fiscal Year show that approximately 8,280 acre-feet of recycled water has been recharged. The 120-month running average of recycled water contribution in the Montebello Forebay is 38.2% and the regulatory maximum is 45%, with additional studies and monitoring being required once 40% is reached.

Tertiary Recycle Water Permit Update

The following is a brief update of the ongoing collaboration between the District and CSDLA regarding the use of tertiary treated recycled water at the Montebello Forebay Spreading Grounds. As previously discussed, both agencies had prepared a tentative schedule with the goal of submitting the regulatory requested Workplan by the end of the calendar year in preparation of the new Title 22 Engineering Report in conformance with the 2014 Groundwater Replenishment Using Recycled Water Regulations (GRRRs). Late last month, the agencies were notified by the RWQCB that the Workplan needs to be submitted by November 18, 2019. Upon receipt of comments on the Workplan from the State of California, the District and CSDLA will proceed with the preparation and submittal of the new Title 22 Engineering Report in 2020.

The Workplan will include:

- Recycled water contribution calculations reaching the Groundwater Replenishment Recharge Project (GRRP; i.e. Montebello Forebay Spreading Grounds)
- Discuss Pomona WRP discharges and quantify recharge at the GRRP
- Propose increasing RWC from 45% to 50%
- Compliance monitoring well location(s)
- Prepare a new figure that depicts cross-sections of wells and corresponding aquifers in the vicinity of the cross-sections presented in the previous Title 22 Engineering Report
- Request for a reduction in monitoring
- Crossover channel maps and related information
- Overview of methodology on chloride as intrinsic tracer
- Provide the approach for using spreading grounds headworks monitoring for surface flow diluent water
- Proposal of using the infiltration of precipitation as diluent water
- Selection of analytical methods based on wastewater and drinking water methods
District staff has initiated the preparation of many of the items listed above pertaining to the District and will continue collaboration with the CSDL A on the joint items. Both entities are working diligently in order to meet the State’s newly imposed deadline.

**Seawater Barrier Well Injection and Replenishment (July 2019 - August 2019)**

The following Chart shows the barrier water injection:

![Seawater Barrier Recharge Chart](chart)

Preliminary numbers for the first two months of the 2019-20 Fiscal Year show that the West Coast Barrier has used 3,063 acre-feet of the total 17,000 acre-feet planned for injection, 18% of total for the Fiscal Year. The Dominguez Gap Barrier used 1,328 acre-feet of the total 7,500 acre-feet planned for injection, 18% of the total for the Fiscal Year. The Alamitos Barrier, on the WRD side, used 470 acre-feet of the total 4,500 acre-feet planned for injection, 10% of the total for the Fiscal Year.
Pumping (Fiscal Year July 2019 – August 2019)

Preliminary numbers for groundwater production in the District for the Fiscal Year 2019-20 (July 2019 – August 2019) indicate pumping in the Central Basin was down 1,211 acre-feet from the same time of the previous fiscal year (-3.4%) and the West Coast Basin pumping was 345 acre-feet lower than the previous fiscal year (-7.1%). The total pumping is 38,564 acre-feet compared to 40,120 acre-feet during the same time the previous year for a decrease of 1,556 acre-feet, or -3.9%. The current pumping data do not include six Central Basin pumpers and one West Coast Basin pumper totaling an estimated 50 additional acre-feet.

For the Fiscal Year to date (July 2019 – August 2019), staff has tracked the production trends of the top five (5) producing pumpers and the bottom five (5) producing pumpers in each basin. These pumpers are identified in the following tables and are based on the change in volume (in acre-feet) compared to the same time period for the previous Fiscal Year.
### Production Trends - Central Basin

<table>
<thead>
<tr>
<th>Top 5 Producing by Volume (AF)</th>
<th>July 2018 - August 2018</th>
<th>July 2019 - August 2019</th>
<th>Difference</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Beach, City of</td>
<td>4,352.22</td>
<td>5,485.59</td>
<td>1,133.37</td>
<td>26.04%</td>
</tr>
<tr>
<td>Whittier, City of</td>
<td>610.32</td>
<td>1,040.52</td>
<td>430.20</td>
<td>70.49%</td>
</tr>
<tr>
<td>Liberty Utilities Corporation</td>
<td>1,415.41</td>
<td>1,612.93</td>
<td>197.52</td>
<td>13.95%</td>
</tr>
<tr>
<td>Paramount, City of</td>
<td>826.61</td>
<td>1,022.31</td>
<td>195.70</td>
<td>23.68%</td>
</tr>
<tr>
<td>Norwalk, City of</td>
<td>90.11</td>
<td>135.07</td>
<td>44.96</td>
<td>49.89%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bottom 5 Producing by Volume (AF)</th>
<th>July 2018 - August 2018</th>
<th>July 2019 - August 2019</th>
<th>Difference</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golden State Water Company</td>
<td>4,385.81</td>
<td>3,758.17</td>
<td>-627.64</td>
<td>-14.31%</td>
</tr>
<tr>
<td>Lakewood, City of Water Department</td>
<td>1,847.92</td>
<td>1,298.77</td>
<td>-549.15</td>
<td>-29.72%</td>
</tr>
<tr>
<td>Vernon, City of</td>
<td>1,179.14</td>
<td>889.95</td>
<td>-289.19</td>
<td>-24.53%</td>
</tr>
<tr>
<td>Huntington Park, City of</td>
<td>763.69</td>
<td>519.78</td>
<td>-243.91</td>
<td>-31.94%</td>
</tr>
<tr>
<td>San Gabriel Valley Water Company</td>
<td>481.38</td>
<td>257.69</td>
<td>-223.69</td>
<td>-46.47%</td>
</tr>
</tbody>
</table>

### Production Trends – West Coast Basin

<table>
<thead>
<tr>
<th>Top 5 Producing by Volume (AF)</th>
<th>July 2018 - August 2018</th>
<th>July 2019 - August 2019</th>
<th>Difference</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inglewood, City of</td>
<td>221.88</td>
<td>614.71</td>
<td>392.83</td>
<td>177.05%</td>
</tr>
<tr>
<td>Torrance, City of</td>
<td>484.00</td>
<td>743.84</td>
<td>259.84</td>
<td>53.69%</td>
</tr>
<tr>
<td>ConocoPhillips Company</td>
<td>747.50</td>
<td>917.53</td>
<td>170.03</td>
<td>22.75%</td>
</tr>
<tr>
<td>Tesoro Refining &amp; Marketing Co., LLC</td>
<td>535.88</td>
<td>652.52</td>
<td>116.64</td>
<td>21.77%</td>
</tr>
<tr>
<td>Rolling Hills Country Club</td>
<td>35.00</td>
<td>76.00</td>
<td>41.00</td>
<td>117.14%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bottom 5 Producing by Volume (AF)</th>
<th>July 2018 - August 2018</th>
<th>July 2019 - August 2019</th>
<th>Difference</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golden State Water Company</td>
<td>1,216.69</td>
<td>74.76</td>
<td>-1,141.93</td>
<td>-93.86%</td>
</tr>
<tr>
<td>Lomita, City of</td>
<td>117.49</td>
<td>0.40</td>
<td>-117.09</td>
<td>-99.66%</td>
</tr>
<tr>
<td>Los Angeles County Department of Parks &amp; Recreation</td>
<td>120.17</td>
<td>49.19</td>
<td>-70.98</td>
<td>-59.07%</td>
</tr>
<tr>
<td>Eco Services Operations, LLC</td>
<td>84.90</td>
<td>55.67</td>
<td>-29.23</td>
<td>-34.43%</td>
</tr>
<tr>
<td>California Water Service Company</td>
<td>18.40</td>
<td>1.57</td>
<td>-16.83</td>
<td>-91.47%</td>
</tr>
</tbody>
</table>

### FISCAL IMPACT

None

### STAFF RECOMMENDATION

The Water Resources Committee receive and file the report.
MEMORANDUM
ITEM NO. 7

DATE: OCTOBER 22, 2019
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: WATER RESOURCES PLANNING UPDATE

SUMMARY

WRD’s Water Resources department works with the Board of Directors to develop the District’s strategic goals and initiatives and provides future program planning to ensure the necessary programs and projects are in-place to meet these goals. Included below is a summary of the major planning efforts currently in-progress and recent developments within those efforts.

Regional Water Supply Projects

Regional Brackish Water Reclamation Program

Background: 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 brackish water plume (approx. 600,000 acre feet) 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) to evaluate the feasibility of remediating the plume, working in partnership with six additional stakeholders pump and wholesale potable water within the basin. A Feasibility Study was initiated as the first step to determining how to remediate this plume to allow for future groundwater use within the basin.

Update:

- The Siting Study was initiated to identify alternatives for siting of the Program extraction wells, centralized desalter facility, and portable wellhead treatment system. The Study will consider properties previously proposed by Stakeholders, vacant properties, public Right of Ways, leases, or redevelopment.

- On September 16th, WRD Staff met with Sanitation Districts of Los Angeles County to discuss options for brine discharge associated with the Program. The two entities have agreed to collaborate on the development of a potential alternative brine discharge option instead of traditional sewer connection. This alternative would entail
the construction of a direct pipeline to the outfall of the District’s Joint Water Pollution Control Plant in Carson.

- Water Resources and Engineering staff have begun development of a Regional Brackish Water Reclamation Program Pilot Study and have tasked the consultant team with the preparation of a Pilot Study Framework. Once developed, this framework will be used to build the Pilot Study scope of work for eventual professional services procurement and design of the pilot facility. The ongoing Siting Study will include review of potential well sites for use in the Pilot Study.

- Grant Funding Update:

<table>
<thead>
<tr>
<th>Reporting Period</th>
<th>Funds Spent</th>
<th>Eligible for Reimbursement</th>
<th>Retention Withheld</th>
<th>Grant Funding Requested</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/1/18 to 12/31/18</td>
<td>$395,077.27</td>
<td>$175,523.86</td>
<td>$17,552.39</td>
<td>$157,971.47</td>
<td>Received</td>
</tr>
<tr>
<td>1/1/19 to 6/30/19</td>
<td>$877,722.73</td>
<td>$418,849.12</td>
<td>$41,884.91</td>
<td>$376,964.19</td>
<td>In-Review</td>
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<tr>
<td>TOTALS</td>
<td>$1,272,800</td>
<td>$594,372.98</td>
<td>$59,437.3</td>
<td>$534,935.66</td>
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</tr>
</tbody>
</table>

Grant Funds Remaining: ($700,000 total secured) $165,064.34

**WRD/LADWP Joint Los Angeles Basin Master Plan**

**Background:** The Water Replenishment District (WRD) and Los Angeles Department of Water and Power (LADWP) have been working collaboratively to establish a partnership on several projects and programs with overlapping objectives. Both staffs have been working towards mutually beneficial goals of utilizing all recycled water in the Los Angeles Basin as well as recharging and utilizing storage available in the West and Central groundwater basins in a sustainable fashion. A MOU has been developed and approved by LADWP and WRD to work together on a joint master plan effort.

In February 2019, WRD and LADWP initiated the joint master plan effort to evaluate the available assets within the greater Los Angeles area within the following three categories:

1. Sustainable recycled water supplies available;
2. Locations, infrastructure and treatment to get new recycled water into and out of the ground;
3. Locations, infrastructure and treatment to get new water out of the ground.

**Update:**

- WRD, DWP, and the consultant team have developed a scope of work for additional analysis to be completed under Task 3 of the Master Plan. Work will include
optimization of the use of available recycled water flows from the Hyperion Water Reclamation Plant and the Los Coyotes Water Reclamation Plant and will incorporate necessary treatment, potential pipeline routing, and groundwater modeling to assess ideal recharge and extraction locations.

Los Angeles County Sanitation Districts Joint Outfall System Water Recycling Fund – Potential Recycled Water Projects

Wastewater (i.e. brine) generated by the District’s Albert Robles Center AWTF in Pico Rivera will be discharged to the existing sewer system, which is owned and operated by the County Sanitation Districts of Los Angeles County (LACSD). Based on the brine flows and water quality anticipated from the AWTF, LACSD has calculated the sewer connection fee to be $15,863,166.90. In December 2018, LACSD modified their Connection Fee Ordinance to create a Joint Outfall System Water Recycling Fund where the entire connection fee paid by WRD will be used for projects that improve quantity and/or quality of recycled water for the benefit of WRD. WRD and LACSD staff have begun initial planning efforts to evaluate potential projects that would satisfy this description and provide benefit to both agencies and the region.

Update:

- On September 16th, WRD staff met with Water Recycling and Planning staff at the Sanitation Districts of Los Angeles County to discuss the status of planning efforts associated with the identified potential recycled water projects.

MWD/LACSD Regional Recycled Water Program

Background: The Metropolitan Water District of Southern California (MWD) and the Sanitation Districts of Los Angeles County (LACSD) are currently completing a demonstration plant at the LACSD Joint Water Pollution Control Plant (JWPCP) wastewater treatment facility in Carson to produce 500,000 gallons per day, or 560 acre-feet per year, of advanced treated recycled water. The facility will generate information needed for future design and construction of a full-scale recycled water plant producing as much as 150 million gallons per day, or 168,000 acre-feet per year. Since 2016, WRD and MWD have worked collaboratively to evaluate potential groundwater recharge and storage opportunities that will take advantage of this new source of recycled water. MWD’s project concepts currently include conveyance of water from Carson to the Montebello Forebay for injection or spreading, to the West Coast Basin as a potential replenishment source for extraction associated with WRD’s Regional Brackish Water Reclamation Program, to the Long Beach area for injection and storage, to oil refineries, or possibly to water treatment facilities as a new raw water augmentation source.

Update:

- On August 29th, WRD staff met with the MWD and Long Beach Water Department (LBWD) staff to discuss opportunities for collaboration on the Regional Recycled Water Program. The discussion centered around MWD’s desire to find potential off-takers for the Program and how WRD and LBWD could work together to use advanced treated water for recharge and storage. The three entities have agreed to
develop a joint letter of intent that would solidify all parties interest in continued collaboration.

- On September 25th, WRD staff met with MWD and The City of Torrance staff to discuss opportunities for collaboration on the Regional Recycled Water Program. The discussion centered around MWD’s desire to find potential off-takers specifically in the West Coast Basin region for an early phase of the program. Torrance and WRD expressed interest in use of the advanced treated water for recharge associated with increased extraction for the Regional Brackish Water Reclamation Program, recharge, and storage. The three entities have agreed to develop a joint letter of intent that would solidify all parties interest in continued collaboration.

Partnership Efforts

Los Angeles County Safe, Clean Water Program

Background: In 2018, Los Angeles County residents voted to approve Measure W – a public funding measure to capture, treat, reuse, and infiltrate stormwater. The County’s implementation of Measure W is The Safe, Clean Water Program. The Program will generate approximately $300 million per year from a special parcel tax of 2.5 cents per square foot of impermeable surface area on private property in the L.A. County Flood Control District.

Update:

- The FY19-20 Watershed Area Steering Committee (WASC) schedule was released, and the first committee meetings have been scheduled for the month of October. The year-long schedule is shown below demonstrating WASC commitments throughout the year and the plan for development of Stormwater Investment Plans that will incorporate stormwater capture projects recommended by the WASCs.
FISCAL IMPACT
None

STAFF RECOMMENDATION
For discussion and possible action.