MEETING OF THE WATER RESOURCES COMMITTEE
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BLVD., LAKEWOOD, CA 90712
11:00 AM, TUESDAY, DECEMBER 17, 2019

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 OCTOBER 22, 2019
   Staff Recommendation: The Water Resources Committee approve the minutes as submitted.

4. APPROVE THE MINUTES OF NOVEMBER 19, 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 January 21, 2020, at 11:00 AM.
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.

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

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 October 22, 2019 at 11:00 AM 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 special meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on October 22, 2019 at 11:00 AM 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: Angie Mancillas; Eric Owens; Kimberly Badescu; Everett Ferguson;
   Lyndsey Bloxom; Tom Knoell; Brian Partington; Robb Whitaker; Rob
   Beste; Ted Johnson; Lawrence Chiu; Diane Gatza; Tenisha Simeon
   Public: Dean Wang – Long Beach Water Department; Bill Minasian -
   Downey resident

2. PUBLIC COMMENT
   Pursuant to Government Code Section 54954.3
   None

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

   First: Allen
   Second: Katherman
   Discussion: None
   Vote: Katherman, Yes; Allen, Yes
   Result: ITEM 3 PASSED

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

   First: Allen
   Second: Katherman
   Discussion: None
   Vote: Katherman, Yes; Allen, Yes
   Result: ITEM 4 PASSED
5. OPERATIONS UPDATE

*Staff Recommendation:* The Water Resources Committee receive and file the report.

Senior Hydrogeologist Everett Ferguson provided the Terminal Island Water Reclamation Plant (TIWRP) / Dominguez Gap Barrier Project (DGBP) Update, stating that the current Barrier demand is 5 MGD. Discussion followed.


Mr. Knoell stated that the contractor for the Albert Robles Center was working on punch list items.

The Water Resources Committee received and filed the report.

6. GROUNDWATER BASIN UPDATE

*Staff Recommendation:* The Water Resources Committee receive and file the report.

Mr. Ferguson provided the monthly groundwater basin update.

The Water Resources Committee received and filed the report.

7. WATER RESOURCES PLANNING UPDATE

*Staff Recommendation:* For discussion and possible action.

Manager of Water Resources Diana Gatza opened discussion for this item, giving an update on the Regional Brackish Water Reclamation Program. Preliminary results had been developed and a siting study was initiated to identify alternatives for siting of the Program’s extraction wells, centralized desalter facility, and portable wellhead treatment system. Discussion followed.

Ms. Gatza also updated the Committee on the WRD/LADWP Joint Los Angeles Basin Master Plan, the Los Angeles County Sanitation Districts Joint Outfall System Water Recycling Fund, the MWD/LACSD Regional Recycled Water Program, and the Los Angeles County Safe, Clean Water Program.

Senior Analyst Lyndsey Bloxom provided a brief presentation on a Water Research Foundation project.

No action was taken.

8. DEPARTMENT REPORT

None

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

None
10. ADJOURNMENT
There being no further business to come before the Committee, the meeting was adjourned at 12:03 PM. to the next meeting scheduled on November 19, 2019 at 10:30 AM.

___________________________  Chair
ATTEST:

___________________________  Member

___________________________  Approved in minutes of:
DATE: DECEMBER 17, 2019
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: APPROVE THE MINUTES OF NOVEMBER 19, 2019

SUMMARY
A meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on November 19, 2019 at 10:52 AM 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 of Southern California was held on November 19, 2019 at 10:52 AM 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; Lawrence Chiu; Robb Whitaker; Ted Johnson; Tom Knoell; Brian Partington; Angie Mancillas; Diane Gatza; Lyndsey Bloxom
   Public:  Director Vera Robles-Dewitt

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.

   Water Operations Superintendent Tom Knoell presented an update on the Terminal Island Water Reclamation Plant, stating that operations were at 5 MGD while the barrier was calling for 6.5 MDG and by the end of the week, operations would be at 6 MGD. General Manager Robb Whitaker called for the numbers to be double-checked.

   Mr. Knoell stated that staff had been continuing bi-monthly calls with Los Angeles Department of Water & Power. Discussion followed.

   Mr. Knoell also provided an update on the Torrance Desalter, stating that capacity was reduced. He stated that the target date for the City Yard Well was mid-December of 2019. Discussion followed.

   Mr. Knoell stated that the Leo J. Vander Lans facility, staff met with the Long Beach Water Department Assistant General Managers and Superintendent to discuss start-up plans for the Long Beach Water Reclamation Plant. Issues discussed included short-term action items needed for restarting the plant and long-term issues such as operations staffing. Discussion followed.

   Finally, Mr. Knoell described activity at the Albert Robles Center, stating that production had totaled roughly 348 million gallons. For the month of November 2019, 623 acre feet (approximately 203 million gallons) were produced. Comments and elaboration followed.

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

Manager of Hydrogeology Brian Partington opened discussion for this item, stating that an inch of rain was forthcoming.

Mr. Partington then stated that the Regional Water Quality Control Board would carry out a review process after the Montebello Forebay workplan deadline was met.

He also stated that Senior Hydrogeologist Everett Ferguson initiated the process for preparation of the Title 22 Engineering Report. Discussion followed.

Mr. Partington then expounded on details of the monthly groundwater update.

The Water Resources Committee received and filed the report.

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

Manager of Water Resources Diane Gatza updated the Committee on various regional water supply projects, including the Regional Brackish Water Reclamation Program, the WRD/LADWP Joint Los Angeles Basin Master Plan, and the MWD/LACSD Regional Recycled Water Program. Discussion and comments followed.

Additionally, Ms. Gatza also provided an update on the Los Angeles County Safe, Clean Water Program. Elaboration followed.

The report will be brought to the next Capital Improvement Projects meeting.

5. DEPARTMENT REPORT  
**Staff Recommendation:** For discussion and possible action.

Senior Analyst Lyndsey Bloxom provided a report. Ms. Bloxom stated that she attended the West Basin Municipal Water District Environmental Impact Report Special Board meeting and that a total of 45 public comments were made. About 10 comments were in support of the desalination project while comments in opposition were geared towards the EIR being insufficient.

Director Katherman inquired about the reason for a ‘no’ vote made by one director for the EIR. Ms. Bloxom stated the director had pointed out that there was no rush for the project. Discussion followed.

Mr. Partington provided comments regarding the attendance of various agencies at the PFOS/PFAS meeting that was held at District headquarters on November 18, 2019. Discussion followed.
6. DIRECTORS’ REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF
None.

7. ADJOURNMENT
There being no further business to come before the Committee, the meeting was adjourned at 12:01 PM. to the next meeting scheduled on December 17, 2019 at 11:00 AM.

___________________________
Chair

ATTEST:
___________________________
Member

Approved in minutes of:
___________________________
MEMORANDUM
ITEM NO. 5

DATE: DECEMBER 17, 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 6.5 MGD
- LASAN is continuing to optimize the plant and update/replace old equipment.
- 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 77 acre-feet (25 million gallons) for the month of November (vs. 98 acre-feet [32 million gallons] for October 2019). The Desalter experienced limited production due the use of only one source water well. However, work has started and continues to rehabilitate the City Yard Well. The plant was offline a total of 11 days due to replacement of the product water chlorine analyzer and
a high-pH chemical cleaning on reverse osmosis (RO) Train #2 due to membrane fouling.

- Pretreatment cartridge filters were removed and sent out for analyses. This was done to reconfirm/determine the nature of the foulant amassing on the filters from operations exclusively on Delthorne Park Well water. Results were received on December 2, 2019 and indicate that the foulant was primarily organic in nature. Pilot testing with a pretreatment chemical will begin once work is completed on the City Yard Well.

Leo J. Vander Lans Facility (LVL) Update

Highlights from the LVL facility include the following:

- Operations have resumed to full production at the Long Beach Water Reclamation Plant, providing sufficient water to restart LVL.
- Staff met with the Long Beach Water Department (LBWD) management (Asst. GM of Operations and Superintendent) on December 3, 2019 at LVL to review the status of the work completed by the LBWD staff, obtain an update regarding remaining issues, and prioritize these issues to start the treatment facility. LBWD indicated that their target for restarting the plant will be the week of December 16, 2019.
- During the month of November 2019, 547.3 acre-feet (AF) of imported water from the LB07A connection was used to satisfy the barrier demand (vs. 574.9 AF the previous month). Current Alamitos barrier injection is approximately 6.41 MDG of imported water.

Albert Robles Center (ARC) Update

Highlights from the ARC facility include the following:

- During the month of November, production totaled approximately 753.3 acre-feet (245 million gallons). JF Shea and its sub-contractor, PERC Water, are continuing to optimize operations, specifically related to reducing nuisance alarms and inadvertent shutdowns.
- As reported last month, staff received notice from JF Shea to proceed with scheduling the on-site inspection by the State Water Resources Control Board, Division of Drinking Water (DDW). Inspection is now scheduled for December 11, 2019, whereby DDW will review plant operations, procedures and alarms. In advance of this inspection, staff met with JF Shea on December 3, 2019 and December 6, 2019 to discuss.

FISCAL IMPACT

None
STAFF RECOMMENDATION

The Water Resources Committee receive and file the report.
DATE:       DECEMBER 17, 2019
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 attached.

FISCAL IMPACT
None

STAFF RECOMMENDATION
The Water Resources Committee receive and file the report.
GROUNDWATER BASINS AT A GLANCE*


Spreading Grounds

- IW - 0 AF
- RW - 14,795 AF
- LW - 129 AF

Annual Target 125K AF

Inj. Barriers

- West Coast Barrier Project - 5,707 AF
- Dominguez Gap Barrier Project - 2,551 AF
- Alamitos Barrier Project - 1,162 AF

Annual Target 29K AF

Imported Water
Recycled Water
Local Water

Precipitation % of Normal to Date
Oct. 1 - Nov. 30

116%
2.14 in.

Spreading Grounds Recharge
Fiscal Year to Date

- 129 AF
- 14,795 AF
- 0 AF

Groundwater Levels - Key Wells

GW Basin Operating Range

37%
106K AF

Minimum Quantity
(0 AF)
Optimum Quantity
(288K AF)

Basin Pumping (Q)
October 2019

217,300 AF Budget

74,820
75,232

FY18-19
FY19-20

Central Basin
West Coast Basin

Seawater Barrier Recharge
Fiscal Year to Date

34%
2551 AF
1162 AF

West Coast
Dominguez Gap
Alamitos Gap

* - 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 1, 2019 – Dec 2, 2019)

The WRD precipitation index reports that for the 2019-20 Water Year, there has been 2.14 inches of rainfall. The normal rainfall for this time period is 1.85 inches, so the District is 116% of normal. As of November 26, 2019, the U.S. Drought Monitor is reporting 91% of the State is abnormally dry, 3% is under moderate drought conditions.

Reservoirs (as of December 1, 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. The largest increase (0.07 million acre feet) occurred at Lake Mead. The smallest increase (<0.00 million acre feet) occurred at Lake Perris and Diamond Valley Lake. The largest decrease (-0.13 million acre feet) occurred at Lake Powell. The smallest decrease (<0.00 million acre feet) occurred at Lake McClure and Pine Flat Lake.

These 16 reservoirs are at 52% capacity (37.68 million acre feet) which is down from the prior month (-0.39 million acre feet State Water Project [SWP] and -0.05 million acre feet Colorado River Aqueduct [CRA]).

<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>1.93</td>
<td>79%</td>
<td>-0.04</td>
</tr>
<tr>
<td>Lake Shasta</td>
<td>4.55</td>
<td>3.21</td>
<td>71%</td>
<td>-0.04</td>
</tr>
<tr>
<td>Lake Oroville</td>
<td>3.54</td>
<td>1.93</td>
<td>54%</td>
<td>-0.10</td>
</tr>
<tr>
<td>Folsom Lake</td>
<td>0.98</td>
<td>0.49</td>
<td>50%</td>
<td>-0.09</td>
</tr>
<tr>
<td>New Melones</td>
<td>2.40</td>
<td>2.00</td>
<td>83%</td>
<td>0.01</td>
</tr>
<tr>
<td>Don Pedro</td>
<td>2.03</td>
<td>1.60</td>
<td>79%</td>
<td>-0.01</td>
</tr>
<tr>
<td>Lake McClure</td>
<td>1.02</td>
<td>0.62</td>
<td>61%</td>
<td>0.00</td>
</tr>
<tr>
<td>San Luis</td>
<td>2.04</td>
<td>0.89</td>
<td>43%</td>
<td>-0.04</td>
</tr>
<tr>
<td>Millerton Lake</td>
<td>0.52</td>
<td>0.23</td>
<td>45%</td>
<td>-0.03</td>
</tr>
<tr>
<td>Pine Flat</td>
<td>1.00</td>
<td>0.42</td>
<td>42%</td>
<td>0.00</td>
</tr>
<tr>
<td>Castaic Lake</td>
<td>0.33</td>
<td>0.25</td>
<td>77%</td>
<td>-0.03</td>
</tr>
<tr>
<td>Lake Perris</td>
<td>0.13</td>
<td>0.09</td>
<td>69%</td>
<td>0.00</td>
</tr>
<tr>
<td>Silverwood</td>
<td>0.08</td>
<td>0.06</td>
<td>79%</td>
<td>-0.01</td>
</tr>
</tbody>
</table>

MWD Reservoirs (SWP)

Storage in 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>Powell</td>
<td>24.32</td>
<td>12.89</td>
<td>53%</td>
<td>-0.13</td>
</tr>
<tr>
<td>Mead</td>
<td>26.12</td>
<td>10.31</td>
<td>39%</td>
<td>0.07</td>
</tr>
<tr>
<td>DVL</td>
<td>0.81</td>
<td>0.76</td>
<td>93%</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Black Text - Decrease or no change in storage since the last report.
Green Text - Increase in storage since the last report.
Groundwater Levels (through November 30, 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 2.5 feet</td>
<td>Increased 6.9 feet</td>
</tr>
<tr>
<td>Central Basin Key Well Long Beach #6_4</td>
<td>Increased 16.6 feet</td>
<td>Increased 18.1 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Lawndale #1_4</td>
<td>Increased 3.8 feet</td>
<td>Increased 1.1 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Carson #1_2</td>
<td>Decreased 0.5 foot</td>
<td>Decreased 1.0 foot</td>
</tr>
</tbody>
</table>

**Bold** indicates a change in direction (decreasing or increasing) since the last report.
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 November 30, 2019, has been estimated at 793,744 acre feet (subject to change), which is 106,256 acre feet above the Minimum Groundwater Quantity and 181,744 acre feet below the Optimum Quantity. The Basin is at 37% of Optimum Quantity which is up 4% from last month.
Montebello Forebay Spreading Grounds (July 2019 - October 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 four months of the 2019-20 Fiscal Year, approximately 129 acre feet of local water capture has been reported by the LACDPW.
Preliminary numbers for the first four months of the 2019-20 Fiscal Year show that approximately 14,795.4 acre feet of recycled water has been recharged. The 120-month running average of recycled water contribution in the Montebello Forebay is 38.1% and the regulatory maximum is 45%, with additional studies and monitoring being required once 40% is reached.

**Tertiary Recycle Water Permit Update**

Following extensive collaboration between the District and CSDL, the workplan required by the SWRCB - Division of Drinking Water and LARWQCB regarding the use of tertiary treated recycled water at the Montebello Forebay Spreading Grounds was submitted on November 18, 2019. As previously discussed, the agencies were notified by the RWQCB that a Workplan needs to be submitted by November 18th in preparation of the new Title 22 Engineering Report in conformance with the 2014 Groundwater Replenishment Using Recycled Water Regulations (GRRRs).

The complexity of the report was beyond what was anticipated, which is reflected in the final product (a workplan totaling 1309 pages). Upon receipt of comments on the Workplan from the State of California, the District and CSDL will proceed with the preparation and submittal of the new Title 22 Engineering Report in 2020. In anticipation of receiving comments in late spring, staff is continuing to work with the CSDL on developing the outline and the known components of the new Title 22 Engineering Report. A preliminary scoping meeting was held on November 26, 2019, and a follow-up strategy meeting has been set for after the holidays (January 27, 2020).
Seawater Barrier Well Injection and Replenishment (July 2019 - October 2019)

The following Chart shows the barrier water injection:

Preliminary numbers for the first four months of the 2019-20 Fiscal Year show that the West Coast Barrier has used 5,707 acre feet of the total 17,000 acre feet planned for injection, 34% of total for the Fiscal Year. The Dominguez Gap Barrier used 2,551 acre feet of the total 7,500 acre feet planned for injection, 34% of the total for the Fiscal Year. The Alamitos Barrier, on the WRD side, used 1,162 acre feet of the total 4,500 acre feet planned for injection, 26% of the total for the Fiscal Year.
Assessible Pumping (Fiscal Year July 2019 – October 2019)

Preliminary numbers for groundwater production in the District for the Fiscal Year 2019-20 (July 2019 – October 2019) indicate pumping in the Central Basin was down 44 acre feet from the same time of the previous fiscal year (-0.1%) and the West Coast Basin pumping was 455 acre feet higher than the previous fiscal year (4.8%). The total pumping is 75,232 acre feet compared to 74,820 acre feet during the same time the previous year for an increase of 411 acre feet, or 0.5%. The current pumping data do not include four Central Basin pumpers and one West Coast Basin pumper who have not yet reported.

![Groundwater Extractions in Acre Feet (AF)](image)
Preliminary numbers indicate 75,232 acre feet have been pumped this fiscal year and is 2.9% below the projected goal of 77,447 acre feet (or -2,215 acre feet). Monthly actual production versus 6-year average monthly production projections (FY 2014 through 2019) are included in the chart below.
For the Fiscal Year 2019-20 (July 2019 – October 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.

<table>
<thead>
<tr>
<th>Production Trends - Central Basin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top 5 Producing by Volume (AF)</strong></td>
</tr>
<tr>
<td>Long Beach, City of</td>
</tr>
<tr>
<td>Whittier, City of</td>
</tr>
<tr>
<td>Liberty Utilities Corporation</td>
</tr>
<tr>
<td>Paramount, City of</td>
</tr>
<tr>
<td>Cerritos, City of</td>
</tr>
<tr>
<td><strong>Bottom 5 Producing by Volume (AF)</strong></td>
</tr>
<tr>
<td>Golden State Water Company</td>
</tr>
<tr>
<td>Lakewood, City of Water Department</td>
</tr>
<tr>
<td>Vernon, City of</td>
</tr>
<tr>
<td>Huntington Park, City of</td>
</tr>
<tr>
<td>Bell Gardens, City of</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Production Trends – West Coast Basin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top 5 Producing by Volume (AF)</strong></td>
</tr>
<tr>
<td>Inglewood, City of</td>
</tr>
<tr>
<td>ConocoPhillips Company</td>
</tr>
<tr>
<td>Tesoro Refining &amp; Marketing Co., LLC</td>
</tr>
<tr>
<td>Torrance, City of</td>
</tr>
<tr>
<td>Rolling Hills Country Club</td>
</tr>
<tr>
<td><strong>Bottom 5 Producing by Volume (AF)</strong></td>
</tr>
<tr>
<td>Golden State Water Company</td>
</tr>
<tr>
<td>Lomita, City of</td>
</tr>
<tr>
<td>West Basin Brewer Desalter</td>
</tr>
<tr>
<td>Los Angeles County Depart. of Parks &amp; Recreation</td>
</tr>
<tr>
<td>California Water Service Company (Dominguez)</td>
</tr>
</tbody>
</table>
DATE: DECEMBER 17, 2018
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 completed and identified alternative properties for siting of the Program extraction wells, centralized desalter facility, and portable wellhead treatment system. The Study considered properties previously proposed by Stakeholders, vacant properties, public Right of Ways, leases, or redevelopment.
Previously, WRD and the Sanitation Districts of Los Angeles County (Sanitation Districts) 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. On December 4, 2019 WRD staff met with the Sanitation Districts to establish a process for collaborative development of this option and, although the centralized desalter location is still in development, the two agencies have begun outlining key terms regarding brine discharge associated with the Project.

Water Resources and Engineering staff have initiated development of a Regional Brackish Water Reclamation Program Pilot Study. A Pilot Study Framework was developed by the Consultant in which WRD developed a proposal to apply for a USBR Desalination and Water Purification Grant program for piloting. WRD’s application was submitted on December 4, 2019 with an anticipated notification of award sometime in early 2020.

WRD has completed close-out interviews with the Program stakeholders as a follow-up to the initial interviews that were conducted at the start of the Feasibility Study. The information garnered from these interviews will be used in developing the overall program governance structure.

Grant Funding Update:

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<th>Reporting Period</th>
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<th>Eligible for Reimbursement</th>
<th>Retention Withheld</th>
<th>Grant Funding Requested</th>
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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 Memorandum of Understanding 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 initiated work 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. The Task 3 Scope of Work is anticipated to be completed in March of 2020.

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:

- December 4, 2019 WRD staff met with Water Recycling and Planning staff at the Sanitation Districts to discuss potential projects and establish a process for moving forward in collaborative project planning. WRD and LACSD have split responsibility of evaluation of the potential projects between the two agencies and are moving forward with additional internal development.

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:

- WRD staff has been working with MWD and Long Beach Water Department staff to develop a joint Letter of Intent (LOI) that would solidify all parties interest in continued collaboration regarding the Regional Recycled Water Program. The draft LOI outlines the shared goals between the agencies and the desire for collaborative program development as each entity progresses in program planning.

- WRD staff have been working with MWD and The City of Torrance staff to develop a joint Letter of Intent (LOI) that would solidify all parties interest in continued collaboration regarding the Regional Recycled Water Program. The draft LOI outlines the shared goals between the agencies and the desire for collaborative program development as each entity progresses in program planning.

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. WRD has been appointed to serve as the Groundwater Management Agency representative for three steering committees: Lower Los Angeles River, Lower San Gabriel River, and the South Santa Monica Bay Watershed Area.
Update:

- The Call for Projects was released on October 15, 2019 and will remain open throughout the calendar year, with the first review of projects occurring in December.

- Initial Watershed Area Steering Committee Meetings were held throughout the month of October. The following is a summary of WASC meeting goals and outcomes:
  - Each committee voted to elect a WASC Chair and Vice Chair.
    - WRD staff, Diane Gatza, was elected to serve as the Chair of the South Santa Monica Bay Watershed Area Steering Committee.
  - Each committee voted to establish upcoming meeting dates through the month of March, 2020.

FISCAL IMPACT

None

STAFF RECOMMENDATION

For discussion and possible action.