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

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

5. FY 2019-20 LONG BEACH WATER DEPARTMENT SPECIAL IN-LIEU PROGRAM
   Staff Recommendation: For discussion and possible action.

6. UPDATE ON THE RECYCLED WATER TERTIARY PERMIT RENEWAL FOR THE MONTEBELLO FOREBAY GROUNDWATER RECHARGE PROJECT
   Staff Recommendation: For discussion and possible action.

7. REGIONAL BRACKISH WATER RECLAMATION PROGRAM UPDATE
   Staff Recommendation: For information.

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 its next meeting currently scheduled for August 20, 2019, at 10:00 a.m.
In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact Brandon Mims, 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.
MEMORANDUM
ITEM NO. 3

DATE: JULY 16, 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 has resolved its operations issues with TIWRP and recycled water production is currently at 6.5 mgd.
- LASAN will continue to work with the County to maximize flows to the barrier.
- LASAN will continue implementing optimization on their UVAOP system.

Torrance Desalter Update
Highlights from the Torrance Desalter include the following:
- Production totaled approximately 55.3 million gallons for the month of June (vs. 45 million gallons for May), with a plant on-line factor of 80%. The plant was off-line a total of 6 days: three days for chemical cleanings of the two reverse osmosis (RO) trains and three days for relocating the chlorine injection port on the combined RO permeate line.
- Staff received notice from the Metropolitan Water District (MWD) on June 3, 2019 regarding the Desalter production data submitted to the Local Resource Planning (LRP) program. The annual reconciliation was successfully completed and the 2017/2018 MWD contribution totaled $133,750. The 2019/2020 fiscal year contribution rate will be $250/AF.
- A Sanitary Survey of the Torrance System (including the Torrance Desalter) was conducted by the State Water Resources Control Board, Division of Drinking Water
(DDW) on June 13, 2019. Review of the Desalter operations was conducted by DDW inspectors with no violations reported. The next inspection will be in 2022.

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 was reduced on 03/26/19 and continues to remain in limited supply.
- Application for renewal of the LVL Industrial Wastewater Discharge Permit to the LA County Sanitation District was approved. The next renewal will be in 2024.
- During the month of June 2019, 338.8 acre-feet (AF) of imported water from the LB07A connection was used to satisfy the barrier demand (vs. 423.0 AF the previous month) and is split between LA County and Orange County.
  - Current Alamitos barrier injection is approximately 2.78 mgd of imported water.

FISCAL IMPACT
None

STAFF RECOMMENDATION
The Water Resources Committee receive and the file report.
MEMORANDUM

ITEM NO. 4

DATE: JULY 16, 2019

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: GROUNDWATER BASIN UPDATE

GROUNDWATER BASINS AT A GLANCE*

* - 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 – June 27th)

The WRD precipitation index reports that for the 2018-19 Water Year, there has been 19.81 inches of rainfall. The normal rainfall for this time period is 15.26 inches, so the District is 130% of normal. As of June 25, 2019, the U.S. Drought Monitor is reporting 4% of the State is abnormally dry, 0% is under drought conditions.

Snowpack (Snow Water Content [SWE] as of June 27, 2019)

In 1929, the State established the California Cooperative Snow Surveys Program with the California Department of Water Resources as the coordinator. Today, over 50 state, national, and private agencies collaborate in collecting snow data from over 300 snow courses with more than 60 of the course being the original courses established in the early 1900’s. The average snow course is 1,000 feet long and consist of about 10 sample points. Anywhere from two to six courses are measured per day depending on weather and access method.

The snow survey is completed using a snow sampling tube equipped with a cutter on the end that is driven through the snow measuring the depth and obtaining a snow core. The snow core is then weighed and the snow water content (or snow water equivalent) calculated. The surveys are completed throughout the winter by returning to the same sample points throughout the season to observe the changing conditions. From February through May the data is used by the State to forecast snow melt runoff. Many snow courses are only measured on or around April 1st, and since it is presumed that the snow accumulates up to April 1st and melts thereafter, April 1st is the benchmark for historic data comparisons.

Snow Water Equivalent (SWE):

- **Northern Sierra Nevada** – 1.2 inches, 80% of normal to date and 4% of April 1st average
- **Central Sierra Nevada** – 2.0 inches, 91% of normal to date and 7% of April 1st average
- **Southern Sierra Nevada** – 1.5 inches, 59% of normal to date and 6% of April 1st average
- **Statewide** – 1.6 inches, 80% of normal to date and 6% of April 1st average
Reservoirs (as of June 26, 2019)

For all 16 reservoirs reported monthly to the committee, water levels have increased in 11 reservoirs compared to levels recorded in the previous month. Water levels rose the most at Lake Powell (2.43 million acre feet) and Lake Silverwood (0.64 million acre feet). The largest decrease (-0.19 million acre feet) occurred at Lake Mead. The smallest decrease (<0.00 million acre feet) occurred at Lake Folsom.
These 16 reservoirs are at 61% capacity (44.21 million acre feet) which is up 5% from the prior month (+1.32 million acre feet State Water Project [SWP] and +2.23 million acre feet Colorado River Aqueduct [CRA]). The largest contributing factor to the change in reservoir storage is Lake Powell (CRA) due to continued precipitation and snowmelt runoff.

<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>2.33</td>
<td>95%</td>
<td>-0.06</td>
</tr>
<tr>
<td>Lake Shasta</td>
<td>4.55</td>
<td>4.39</td>
<td>96%</td>
<td>-0.08</td>
</tr>
<tr>
<td>Lake Oroville</td>
<td>3.54</td>
<td>3.47</td>
<td>98%</td>
<td>0.02</td>
</tr>
<tr>
<td>Folsom Lake</td>
<td>0.98</td>
<td>0.93</td>
<td>95%</td>
<td>0.00</td>
</tr>
<tr>
<td>New Melones</td>
<td>2.40</td>
<td>2.23</td>
<td>93%</td>
<td>0.19</td>
</tr>
<tr>
<td>Don Pedro</td>
<td>2.03</td>
<td>1.96</td>
<td>97%</td>
<td>0.12</td>
</tr>
<tr>
<td>Lake McClure</td>
<td>1.02</td>
<td>0.99</td>
<td>97%</td>
<td>0.15</td>
</tr>
<tr>
<td>San Luis</td>
<td>2.04</td>
<td>1.52</td>
<td>75%</td>
<td>0.07</td>
</tr>
<tr>
<td>Millerton Lake</td>
<td>0.52</td>
<td>0.50</td>
<td>97%</td>
<td>0.10</td>
</tr>
<tr>
<td>Pine Flat</td>
<td>1.00</td>
<td>0.93</td>
<td>93%</td>
<td>0.18</td>
</tr>
<tr>
<td>Castaic Lake</td>
<td>0.33</td>
<td>0.31</td>
<td>94%</td>
<td>0.00</td>
</tr>
<tr>
<td>Lake Perris</td>
<td>0.13</td>
<td>0.13</td>
<td>96%</td>
<td>0.01</td>
</tr>
<tr>
<td>Silverwood</td>
<td>0.08</td>
<td>0.71</td>
<td>908%</td>
<td>0.64</td>
</tr>
</tbody>
</table>

Charts illustrating Lake Shasta (SHA) has started to drain at a rate greater than water is being captured and Lake Oroville (ORO) is continuing to fill at a rate greater than water is being released (-3,321 cfs and 149 cfs, respectively).
Groundwater Levels (through June 21, 2019)

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

### Groundwater Level Changes in Key Wells

<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>Increased 0.6 foot</td>
<td>Increased 10.1 feet</td>
</tr>
<tr>
<td>Central Basin Key Well Long Beach #6_4</td>
<td>Decreased 1.2 feet</td>
<td>Decreased 6.8 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Lawndale #1_4</td>
<td>Increased 0.8 foot</td>
<td>Increased 5.5 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Carson #1_2</td>
<td><strong>Increased 1.5 feet</strong></td>
<td>Increased 4.6 feet</td>
</tr>
</tbody>
</table>

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

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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.

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.

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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 June 21, 2019 has been estimated at 755,400 acre-feet (subject to change), which is 144,600 acre-feet above the Minimum Groundwater Quantity and 143,400 acre-feet below the Optimum Quantity.
Montebello Forebay Spreading Grounds (May 2019)

The following Chart shows the preliminary spreading grounds replenishment water:

The District budgeted for 8,000 acre-feet of imported water for replenishment in Fiscal Year 2018-19 which began delivery on December 24, 2018. To date, 5,340 acre-feet has been delivered.

Preliminary numbers for the first eight months of the 2018-19 Water Year show that 32,387 acre-feet of recycled water has been recharged, which is below the year to date target amount of 42,861 acre-feet. The 120-month running average of recycled water contribution in the Montebello Forebay is 38.3% 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 eight months of the 2018-19 Water Year, 77,349 acre-feet of local water capture has been reported by the LACDPW which is above the year to date target amount of 52,000 acre-feet.

**Seawater Barrier Well Injection and Replenishment (May 2019)**

The following Chart shows the barrier water injection:

![Chart](image)

Preliminary numbers for the first eight months of the 2018-19 Water Year show that the West Coast Barrier has used 8,616 acre-feet of the total 17,000 acre-feet for injection, 51% of planned total for the Water Year. The Dominguez Gap Barrier used 5,105 acre-feet for injection of the total 8,000 acre-feet for injection, 64% of planned total for the Water Year. The Alamitos Barrier, on the WRD side, used an estimated 2,225 acre-feet for injection of the total 4,000 acre-feet for injection, 65% of planned total for the Water Year.

Preliminary numbers for groundwater production in the District for the first eight months of the 2018-19 Water Year indicate that 131,465 acre-feet were pumped compared to 142,424 acre-feet the year previous, or a decrease of 10,959 acre-feet (-7.7%). In the Central Basin, pumping was 7,100 acre-feet lower than the previous water year (-5.9%) and the West Coast Basin pumping was down 3,859 acre-feet from the previous water year (-17.6%). The Chart below shows Water Year 2018-19 pumping versus Water Year 2017-18.

Preliminary numbers for groundwater production in the District for the Fiscal Year 2018-19 to date (July 2018 – May 2019) indicate pumping in the Central Basin was down 5,841 acre-feet from the same time of the previous fiscal year (-3.4%) and the West Coast Basin pumping was 5,622 acre-feet lower than the previous fiscal year (-18.2%). The total pumping is 190,778 acre-feet compared to 202,241 acre-feet during the same time the previous year for a decrease of 11,463 acre-feet, or -5.7%. The current pumping data do not include four Central Basin pumpers and one West Coast Basin pumpers totaling an estimated 215 additional acre-feet.
FISCAL IMPACT
None

STAFF RECOMMENDATION
That the Committee receive and file the report.
MEMORANDUM
ITEM NO. 5

DATE: JULY 16, 2019
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: FY 2019-20 LONG BEACH WATER DEPARTMENT SPECIAL IN-LIEU PROGRAM

SUMMARY

In-lieu replenishment provides a means for indirectly recharging the groundwater basins by incentivizing pumpers to use an alternative source of water in-lieu of groundwater, thereby keeping the groundwater in the basin for future use instead of pumping it out. WRD typically pays a producer to not pump groundwater and to instead take an alternate source of water, such as Tier 1 water from Metropolitan Water District, and pays the producer the difference in cost between groundwater and the alternate source of water.

At the May 21 and June 18, 2019, Water Resources Committee meetings, discussions were held with the Committee, staff, and a member of the Long Beach Water Department (LBWD) on the development of a potential Special In-Lieu Program for FY2019/20 using Metropolitan Water District treated Tier 1 water as the alternative source to groundwater for the LBWD.

During the June Water Resource Committee meeting staff presented additional analyses regarding the potential financial impact and benefits to WRD for an In-Lieu program lasting through November 2019, when the Leo J. Vander Lans treatment plant is shut down due to lack of source water, causing more expensive imported water to be used instead of recycled water at the Alamitos Seawater Barrier. A LBWD In-Lieu Program during this time would cause water levels to rise (due to a reduction in pumping) and could potentially reduce the amount of imported water needed at the barrier.

Staff determined the cost for Long Beach to pump groundwater in the FY is $569 per acre foot (LBWD operations and maintenance cost of $204 per acre-foot and WRD replenishment assessment of $365 per acre-foot). The cost of Metropolitan Water District treated Tier 1 water to Long Beach is $1,050 per acre-foot through December 31, 2019. Therefore, the cost difference between groundwater and imported water to LBWD, is $481 per acre-foot and is the In-Lieu rate that WRD would pay LBWD not to
pump during this time frame. The reduction in imported water cost to WRD at the Alamitos Seawater Barrier would be based upon the amount of pumping reduced, but the cost of imported water to WRD at the barrier is approximately $1,200 per acre-foot.

The District and LBWD reviewed several In-Lieu scenarios ranging from 1,000 AF to 15,000 AF and it was determined that a 5,000 AF In-Lieu Program with an In-Lieu Rate of $481 per acre-foot for the period through December 2019 would be mutually beneficial for both WRD and LBWD. For WRD, this rate results in the least expensive imported replenishment water available within the WRD service area. For LBWD, the incentive payment of $481 makes imported replenishment water cost neutral compared to the groundwater which it is offsetting.

**FISCAL IMPACT**

This is not a budgeted item; the District would use funds from the water purchase carryover fund to cover these costs.

**STAFF RECOMMENDATION**

For discussion and possible action.
MEMORANDUM
ITEM NO. 6

DATE: JULY 16, 2019
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: UPDATE ON THE RECYCLED WATER TERTIARY PERMIT RENEWAL FOR THE MONTEBELLO FOREBAY GROUNDWATER RECHARGE PROJECT

SUMMARY
Recycled water has been used for groundwater recharge in the Montebello Forebay region of the Central Basin since 1962. Since that time, over 2 million acre-feet (AF) of recycled water has been captured for recharge to the benefit of the residents and businesses within the WRD service area, which covers 43 cities and 420 square miles of southern Los Angeles County. Numerous scientific, academic, and health effects studies have been performed over the years to investigate the safety of this recycled water recharge project, and extensive groundwater testing at monitoring wells and drinking water wells is performed to comply with permit requirements. To date, no problems have been found with this project, and this recharge project has proven invaluable to maintaining local groundwater supplies. This has proven particularly important given the recent drought situation in California, as substantiated by the now former Governor Brown's statewide drought emergency declaration on January 17, 2014.

In accordance with the Groundwater Replenishment Using Recycled Water Regulations (GRRRs), which became effective on June 18, 2014, WRD and the Los Angeles County Sanitation Districts (LACSD) were required to conduct a Compliance Assessment to document compliance with the new regulations or what actions are required to meet these new standards. This report was submitted on June 18, 2015 to the Division of Drinking Water (DDW) and the Los Angeles Regional Water Quality Control Board (LARWQCB). Once comments were received, WRD and LACSD submitted a Work Plan addressing these comments on October 31, 2017. Subsequent to the Work Plan submittal, there have been two follow-up meetings with the DDW and LARWQCB to discuss the outstanding issues in order to prepare and submit a Final Work Plan and begin preparing a Title 22 Engineering Report as required by the GRRR.

As discussed previously with the Committee, the eventual Title 22 Engineering Report will also include the plan to increase the tertiary recycled water percentage to 50%, to
include the Los Coyotes Water Reclamation Plant as a source water component, and to utilize the Albert Robles Center (ARC) advanced treated water as a diluent water to the tertiary water.

WRD staff will provide an update on the current progress of this project and the anticipated next steps and timelines.

**FISCAL IMPACT**
None at this time.

**STAFF RECOMMENDATION**
For discussion.
MEMORANDUM
ITEM NO. 7

DATE: JULY 16, 2019

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: REGIONAL BRACKISH WATER RECLAMATION PROGRAM UPDATE

SUMMARY
Staff will provide a verbal update for this committee item.

FISCAL IMPACT
No impact.

STAFF RECOMMENDATION
For information.