SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CALIFORNIA 90712
9:30 A.M., MONDAY, APRIL 23, 2018

AGENDA

EACH ITEM ON THE AGENDA, NO MATTER HOW DESCRIBED, SHALL BE DEEMED TO INCLUDE ANY APPROPRIATE
MOTION, WHETHER TO ADOPT A MINUTE MOTION, RESOLUTION, PAYMENT OF ANY BILL, APPROVAL OF ANY
MATTER OR ACTION, OR ANY OTHER ACTION. ITEMS LISTED AS "FOR INFORMATION" MAY ALSO BE THE SUBJECT
OF ANY "ACTION" TAKEN BY THE BOARD OR A COMMITTEE AT THE SAME MEETING.

1. DETERMINATION OF A QUORUM

2. PUBLIC COMMENT
   Pursuant to Government Code Section 54954.3

3. APPROVE MINUTES OF THE SPECIAL MEETING OF MARCH 22, 2018
   **Staff Recommendation:** The Water Resources Committee approve the minutes
   as submitted.

4. AUTHORIZE NEGOTIATION FOR PROFESSIONAL LABORATORY SERVICES
   **Staff Recommendation:** The Water Resources Committee authorize staff to
   negotiate a scope, fee and schedule with Eurofins Eaton Analytical, LLC for a
   three-year laboratory services contract, subject to approval as to form by District
   Counsel.

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

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

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

The Water Resources Committee will adjourn to the next regular meeting currently scheduled for May 16, 2018, at 8:30 A.M.

Agenda posted by Senior Administrative Specialist Sherri Brown on April 19, 2018. In compliance with ADA requirements, this document can be made available in alternative formats upon request.
MINUTES OF MARCH 22, 2018
SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA

A special meeting of the Water Resources Committee of the Board of Directors of the Water Replenishment District of Southern California was held on March 22, 2018 at 9:33 a.m., at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Robert Katherman called the meeting to order and presided thereafter. Senior Administrative Specialist Sherri Brown recorded the minutes.

1. DETERMINATION OF A QUORUM
A quorum was present, which included:
Committee: Committee Chair Robert Katherman; President John D.S. Allen
Staff: Ted Johnson; Tom Knoell; Everett Ferguson; Brian Partington; Lyndsey Bloxom
Public: Clynton Namuo – Attorney, Alston Bird Law Firm

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

3. CLOSED SESSION – 9:34 A.M.
Conference with Legal Counsel – Anticipated litigation, pursuant to Government Code §54956.9 (b), One Matter.

The Committee reconvened and resumed the Committee meeting at 9:48 A.M. Council reported that this Closed Session item will be going before the Board of Directors at the meeting scheduled for April 3rd, for information.

No action was taken.
4. **OPERATIONS UPDATE**
   Senior Hydrogeologist Everett Ferguson provided the report for the Terminal Island Water Reclamation Plant. Discussion followed.
   Water Operations Superintendent Tom Knoell presented a report and slide presentation of the Goldsworthy Desalter, including membrane performance, autopsy and cleaning. Discussion followed.
   Mr. Knoell also provided an update of the Leo J. Vander Lans Facility. He stated that maintenance challenges will be discussed with Long Beach, and an update will be brought back to the Water Resources Committee. Discussion followed.
   The Water Resources Committee received and filed the report.

5. **GROUNDWATER BASIN UPDATE**
   Mr. Ferguson provided the groundwater basin update. Discussion followed.
   The Water Resources Committee received and filed the report.

6. **DIRECTORS REPORTS, INQUIRIES, AND FOLLOW-UP OF DIRECTIONS TO STAFF**
   The Committee Vice Chair requested that staff investigate hacking challenges to WRD programs such as SCADA and the network, and report on the security systems in place; and report back to the Committee in about three months.
   Discussion followed.
   No action was taken.

7. **ADJOURNMENT**
   The Committee unanimously approved changing the next Water Resources Committee meeting date to Monday, April 23rd at 9:30 A.M.
   There being no further business to come before the Committee, the meeting was adjourned at 10:46 A.M.

   __________________________
   Chair

   ATTEST:

   __________________________
   Member

   Approved in minutes of:
MEMORANDUM

ITEM NO. 4

DATE: APRIL 23, 2018

TO: WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: AUTHORIZE NEGOTIATION FOR PROFESSIONAL LABORATORY SERVICES

SUMMARY

The District has a need for professional laboratory services to analyze various water quality samples associated with the following:

- Regional Groundwater Monitoring Program including the associated discharge permit testing requirements under the National Pollutant Discharge Elimination System (NPDES); Over 600 samples are collected per year representing 60,000 analytical results.
- Permit Compliance and Water Quality Testing Programs associated with the Montebello Forebay, Alamitos Barrier Project, Dominguez Gap Barrier Project, and Groundwater Reliability Implementation Project (recently renamed the Albert Robles Center for Water Recycling and Environmental Learning). Hundreds of samples are collected to maintain compliance with permit requirements.
- Various water quality investigations and research initiatives under the Water Quality Testing Program and Well Profiling Program.

The District’s current contract laboratory for these services, Eurofins Eaton Analytical, LLC (Eurofins), expires on June 30, 2018. In anticipation of this, on February 21, 2018, the Board of Directors authorized the release of a Request for Qualifications (RFQ) for a new three year professional laboratory services contract anticipated through June 30, 2021. The RFQ was issued to 11 laboratories and also posted on the District’s website on February 23, 2018. Eurofins was the only laboratory to submit a proposal by the deadline of March 23, 2018.

Staff reached out to laboratory representatives that had responded to past laboratory solicitations from WRD. Various reasons were provided for not submitting proposals. Some laboratories indicated they could not meet the subcontracting requirements (our solicitation allowed up to three), some needed to use alternative testing methods (our solicitation required methods consistent with our existing permits), and some wanted the option to make exceptions to WRD’s standard agreement but our agreement does not allow for that. Therefore, no other laboratories submitted an RFQ.

The Eurofins proposal was reviewed against each criteria requested in our RFQ and they met all obligations. They have performed well in the past for WRD and have sufficient in-house capabilities to meet District high-volume and specialized analytical needs. Eurofins is a local
business enterprise (LBE) with substantial capacity and is recognized as an industry leading water quality testing and is familiar with the various analytical testing requirements in California. Therefore, Staff is recommending awarding the contract to Eurofins.

**FISCAL IMPACT**
The laboratory costs are a budgeted item for the various analytical testing program managed by WRD. The estimated value of the three year professional laboratory services contract is open to negotiation with the selected firm.

**STAFF RECOMMENDATION**
The Water Resources Committee authorize staff to negotiate a scope, fee and schedule with Eurofins Eaton Analytical, LLC for a three-year laboratory services contract, subject to approval as to form by District Counsel.
MEMORANDUM

ITEM NO. 5

DATE: APRIL 23, 2018
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: OPERATIONS UPDATE

SUMMARY

The intent of the Operations Update staff report/agenda item is to inform and update members of the Water Resources Committee on a regular and reoccurring basis about operational matters, technical issues, engineering plans, and various multi-agency strategies in regards to all of the District’s current and planned operational facilities.

Terminal Island Water Reclamation Plant (TIWRP) Update

The Los Angeles Sanitation Department (LASAN) TIWRP expansion is delivering between 3 to 5 mgd to the DGBP and the current barrier demand is ~8 mgd (~12 cfs). The DGBP had a recent shutdown for maintenance and restarted on 4/10/18. LASAN is in discussions with DDW & RWQCB to get approval of the TIWRP’s AOP operation and plant expansion in order to be able to go above 6.0 mgd and meet the full barrier demand. LASAN has scheduled a RWQCB/DDW Site Inspection for April 24, 2018. LASAN is anticipating receiving RWQCB/DDW approval following the site inspection (Staff anticipates 2 weeks following the meeting).

Robert W. Goldsworthy Desalter Update

Shimmick Construction Company Inc. completed punchlist items by March 1, 2018, and is now working with WRD and Carollo Engineers to close out the project. We hope to request WRD Board approval for project closure in May 2018. As reported in previous meetings, staff has been challenged with trying to operate the desalter sustainably in the presence of a high fouling source water which has hampered the reverse osmosis (RO) system. The principal foulant consists of colloidal natural organic matter (NOM), including humic acids. This was determined through autopsies which were performed on fouled RO elements removed from the system. (Foulant removed from the autopsied RO element totaled 9lbs, or an excess of 4,000lbs per RO train, assuming comparable quantity across all elements.) Efforts to slow the progression of fouling have included altering flow conditions within the RO trains and utilizing alternative pretreatment chemical.

As of writing this report, staff is pleased to report that the operations team has made significant progress toward achieving stable operations of the plant’s RO system. While still in the early stages of evaluation, feed pressures (in RO Train 1) have remained...
relatively stable - thus allowing for continued operations without interruption. Efforts will now focus on 1. Conducting a chemical cleaning of RO Train 2; 2. Confirm RO Train 2 performance is comparable to RO Train 1 and 3. Begin increasing RO system (i.e., plant production) output without increasing the rate of membrane fouling.

Leo J. Vander Lans Facility (LVL) Update

As reported last month, a number of issues during startup have prevented the LVL treatment facility from operating in any sustainable fashion. Since that report, staff is pleased to report that the facility is now on-line and operating sustainably since late March at a production rate of 3mgd. As barrier demand increases, LVL production will increase concurrently. On April 3, 2018, Spectrum completed installation of fiber lines to allow for a direct connection from the LVL treatment facility to the WRD headquarters in Lakewood (Central Information System – CIS). Starting the week of April 16, 2018, the District’s SCADA integrator (Enterprise Automation) will begin work to establish communications between the two facilities which will enable local monitoring of plant operations. Since this new District-wide SCADA framework involves communications across multiple platforms, cyber security is paramount to ensure the integrity, confidentiality and preservation of all District data. After briefly discussing cyber security at the previous meeting, staff requested that Enterprise Automation provide the Committee with a short overview presentation highlighting cyber security and the efforts undertaken to ensure the protection of all District information.

FISCAL IMPACT

None.

STAFF RECOMMENDATION

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

DATE: APRIL 23, 2018
TO: WATER RESOURCES COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: GROUNDWATER BASIN UPDATE

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

Precipitation (as of April 5, 2018)
The WRD precipitation index reports that for the 2017-18 Water Year, there has been 4.60 inches of rainfall. The normal rainfall for this time period is 14.19 inches, so the District is 32% of normal. As of April 3, 2018, the U.S. Drought Monitor is reporting 77% of the State is abnormally dry, 41% is under drought conditions, 13% of the State is under severe drought conditions including most of Los Angeles County, and 2.5% of the State is under extreme drought (in portions of eastern Riverside and Imperial Counties).

Reservoirs (as of April 5, 2018)
Snowpack (Snow Water Content [SWE] as of April 5, 2018)

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.

**Northern Sierra Nevada** – 10.7 inches, 39% of April 1st average and 40% of normal to date  
**Central Sierra Nevada** – 16.5 inches, 56% of April 1st average and 56% of normal to date  
**Southern Sierra Nevada** – 12.1 inches, 47% of April 1st average and 47% of normal to date  
**Statewide** – 13.5 inches, 49% of April 1st average and 49% of normal to date
Groundwater Levels (through April 5, 2018)

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

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.

### Groundwater Level Changes in Key Wells

<table>
<thead>
<tr>
<th>Well Name</th>
<th>Since Last Month</th>
<th>Since Same Time the Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Basin Key Well 1601T</td>
<td>Decreased 0.4 feet</td>
<td>Decreased 24.4 feet</td>
</tr>
<tr>
<td>Central Basin Key Well Long Beach #6 4</td>
<td>Decreased 4.9 feet</td>
<td>Increased 8.1 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Lawndale #1_4</td>
<td>Decreased 1.0 feet</td>
<td>Decreased 7.1 feet</td>
</tr>
<tr>
<td>West Coast Basin Key Well Carson #1_2</td>
<td>Decreased 1.6 feet</td>
<td>Decreased 1.4 feet</td>
</tr>
</tbody>
</table>
Montebello Forebay Spreading Grounds (October 2017 - February 2018)
The following Chart shows the preliminary spreading grounds replenishment water to date:

The District placed an order for 5,300 acre-feet of imported water for replenishment in Water Year 2017-18 to complete the 38,000 acre-feet order from earlier in 2017. The imported water delivery began on December 6th and was completed on December 17th with a total of 5,286 AF of Imported Water delivered. An order for an additional 4,500 acre-foot has been placed in April and will be included in next month’s update.

Preliminary numbers for the first five months of the 2017-18 Water Year show that 26,144 acre-feet of recycled water has been recharged, which is above the year to date target amount of 21,150 acre-feet. The 120-month running average of recycled water contribution in the Montebello Forebay is 38.4% and the regulatory maximum is 45%, with additional studies 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 five months of the 2017-18 Water Year, 1,081 acre-feet of local water capture has been reported by the LACDPW.

Seawater Barrier Well Injection and Replenishment (October 2017 - February 2018)

The following Chart shows the barrier water injection to date:

![Seawater Barrier Recharge Chart]

Preliminary numbers for the first five months of the 2017-18 Water Year show that the West Coast Barrier used 1,579 acre-feet of imported water and 5,950 acre-feet of recycled water, or 79% recycled water. The Dominguez Gap Barrier has put in less water than planned, due to TIWRP expansion activities using 2,135 acre-feet of imported water and 1,365 acre-feet of recycled water, or 39% recycled water. The Alamitos Barrier, on the WRD side, used an estimated 1,313 acre-feet of imported water and no recycled water due to the maintenance outage at the LBWRP.

Pumping (October 2017 - February 2018* and Fiscal Year to Date)

Preliminary numbers for groundwater production in the District for the first five months of the 2017-18 Water Year indicate that 87,932 acre-feet were pumped compared to 80,045 acre-feet the year previous, or an increase of 7,887 acre-feet (9.9%). In the Central Basin, pumping was 4,737 acre-feet higher than the previous water year (6.8%) and the West Coast Basin pumping...
was up 3,149 acre-feet from the previous water year (30.5%). The Chart below shows Water Year 2017-18 pumping versus Water Year 2016-17.

Preliminary numbers for groundwater production in the District for the first eight months of the current Fiscal Year 2017-18 (July 2017 – February 2018) indicate pumping in the Central Basin was up 5,235 acre-feet from the same time of the previous fiscal year (4.4%) and the West Coast Basin pumping was 4,812 acre-feet higher than the previous fiscal year (27.3%). The total pumping is 147,746 acre-feet compared to 137,699 acre-feet during the same time the previous year for an increase of 10,047 acre-feet, or 7.3%. The current pumping data do not include three Central Basin pumpers and two West Coast Basin pumpers totaling an estimated 169 additional acre-feet.

![Groundwater Extractions Chart]

* February data do not yet include three small pumpers in the Central Basin & one small pumper and one large pumper in the West Coast Basin.

**FISCAL IMPACT**

None.

**STAFF RECOMMENDATION**

The Water Resurces Committee receive and file the report.