AGENDA
REGULAR MEETING BOARD OF DIRECTORS
ORANGE COUNTY WATER DISTRICT
18700 Ward Street, Fountain Valley, CA (714) 378-3200
Wednesday, March 18, 2020 – 5:30 p.m., Boardroom

SPECIAL NOTICE – Telephonic Accessibility for Board Members:

Pursuant to Paragraph 11 of Executive Order N-25-20, executed by the Governor of California on March 12, 2020 as a response to mitigating the spread of Coronavirus known as COVID-19, this regular meeting of the Orange County Water District will allow members of the Board to attend the Board meeting telephonically from remote locations without requiring public access to those locations. Public access and participation will be afforded at the OCWD Boardroom, subject to reasonable requirements as may be directed by state and local health agencies.

PLEDGE OF ALLEGIANCE

ROLL CALL

ITEMS RECEIVED TOO LATE TO BE AGENDIZED

RECOMMENDATION: Adopt resolution determining need to take immediate action on item(s) and that the need for action came to the attention of the District subsequent to the posting of the Agenda (requires two-thirds vote of the Board members present, or, if less than two-thirds of the members are present, a unanimous vote of those members present.)

VISITOR PARTICIPATION

Time has been reserved at this point in the agenda for persons wishing to comment for up to three minutes to the Board of Directors on any item that is not listed on the agenda, but within the subject matter jurisdiction of the District. By law, the Board of Directors is prohibited from taking action on such public comments. As appropriate, matters raised in these public comments will be referred to District staff or placed on the agenda of an upcoming Board meeting.

At this time, members of the public may also offer public comment for up to three minutes on any item on the Consent Calendar. While members of the public may not remove an item from the Consent Calendar for separate discussion, a Director may do so at the request of a member of the public.

PUBLIC HEARINGS

1. PUBLIC HEARING ON 2018-19 ENGINEER'S REPORT ON GROUNDWATER CONDITIONS, WATER SUPPLY AND BASIN UTILIZATION

   RECOMMENDATION: Receive public hearing comments and file Engineer's Report

2. PUBLIC HEARING REGARDING POTENTIAL ADJUSTMENT TO BOARD MEMBER DIVISIONS FIVE, SIX AND SEVEN

   RECOMMENDATION: Per Elections Code §22001, schedule a second public hearing for April 1, 2020 to consider potential adjustments to the boundaries of Board divisions five, six and seven

CONSENT CALENDAR (ITEMS NOS. 3 - 17)

All matters on the Consent Calendar are to be approved by one motion, without separate discussion on these items, unless a Board member or District staff request that specific items be removed from the Consent Calendar for separate consideration.

3. APPROVAL OF CASH DISBURSEMENTS

   RECOMMENDATION: Ratify/authorize payment of bills

4. APPROVAL OF MINUTES OF BOARD OF DIRECTORS MEETINGS HELD FEBRUARY 5, 2020

   RECOMMENDATION: Approve minutes as presented

5. RESOLUTION HONORING MARC MARCANTONIO UPON HIS RETIREMENT FROM THE YORBA LINDA WATER DISTRICT

   RECOMMENDATION: Adopt resolution honoring Marc Marcantonio for his years of service at the Yorba Linda Water District

ITEM RECOMMENDED FOR APPROVAL AT PROPERTY MANAGEMENT COMMITTEEE MEETING HELD FEBRUARY 28, 2020 (ITEM NO. 6)

6. CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) PROPERTY AT BURRIS BASIN AND GENTRY GOLF, INC. D.B.A. THE ISLANDS CENTER LEASEHOLD

   RECOMMENDATION: Authorize the General Manager to execute a new six-month Airspace Rental Agreement with Caltrans at a rent of $736 per month for the 1.3-acre property, subject to approval by legal counsel

ITEM RECOMMENDED FOR APPROVAL AT WATER ISSUES COMMITTEEE MEETING HELD MARCH 11, 2020 (ITEMS NO. 7 – 12)

7. AMENDMENT NO. 2 TO AGREEMENT NO. 1175 WITH INTERA, INC. EXTENDING ALAMITOS GROUNDWATER MODEL INTO SUNSET GAP

   RECOMMENDATION: Authorize issuance of Amendment No. 2 to Agreement No. 1175 with Intera, Inc., in the amount of $48,320 to recover calibration costs, conduct seven additional predictive simulations, and complete model documentation for the Alamitos-Sunset Gap groundwater model

8. PURCHASE ORDER TO QUINN COMPANY FOR A CATERPILLAR 950M FRONT END LOADER

   RECOMMENDATION: Authorize issuance of a Purchase Order to Quinn Company in the amount of $407,302 for a Caterpillar Tier 4 Model 950M front end loader and authorize the surplus and sale of the existing RT-17 front end loader

9. NOTICE OF COMPLETION FOR CONTRACT GBM-2019-1: DRILLING, CONSTRUCTION, AND DEVELOPMENT OF REPLACEMENT MONITORING WELL OCWD-M43R AT ORANGE COAST COLLEGE

RECOMMENDATION:
1) Ratify issuance of Change Order Nos. 1 and 2; and
2) Accept completion of work and authorize filing a Notice of Completion for Contract GBM-2019-1, Drilling, Construction, and Development of Replacement Nested Monitoring Well OCWD-M43R

10. RATIFY PAYMENT TO W.A. RASIC CONSTRUCTION AND AUTHORIZE ISSUANCE OF AGREEMENT WITH JAMISON ENGINEERING FOR GWRS PIPELINE REPAIR WORK AND W.A. RASIC CONSTRUCTION FOR FUTURE GWRS PIPELINE REPAIR WORK

RECOMMENDATION:
1) Ratify Work Order No. 2 of Agreement No. 1291 to W.A. Rasic Construction Company, Inc. for emergency repair of the 78-inch GWRS pipeline in December 2019 in the amount of $57,302;
2) Authorize Issuance of Agreement with Jamison Engineering for the installation of interior seals on the GWRS pipeline in the amount of $35,000; and
3) Authorize issuance of an emergency repair work order to W.A. Rasic Construction for the repair of the GWRS pipeline couplings in the amount of $180,000

11. CONFIDENTIAL NONDISCLOSURE AGREEMENT WITH REGENESIS BIOREMEDIATION PRODUCTS TO SUPPORT COLLABORATIVE RESEARCH

RECOMMENDATION: Approve and authorize General Manager to execute nondisclosure agreement with Regenesis Bioremediation Products

12. AMENDMENT TO BLACK & VEATCH FOR DESIGN PHASE SERVICES AND NOTICE INVITING BIDS FOR THE GWRS FINAL EXPANSION PLANT 2 SECONDARY EFFLUENT PIPELINE REHABILITATION PROJECT

RECOMMENDATION:
1) Authorize issuance of Amendment No. 5 to Agreement No. 1248 with Black & Veatch for design phase services for the GWRS Final Expansion Project for an amount not to exceed $37,850; and
2) Authorize advertisement of Notice Inviting Bids for the GWRS Final Expansion Plant 2 Secondary Effluent Pipeline Rehabilitation Project

ITEM RECOMMENDED FOR APPROVAL AT ADMINISTRATION AND FINANCE ISSUES COMMITTEEE MEETING HELD MARCH 12, 2020 (ITEMS NO. 13 – 17)

13. MONTHLY CASH CONTROL REPORT

RECOMMENDATION: Receive and file Summary Cash and Cash Equivalents Control Reports dated February 29, 2020

14. INVESTMENT PORTFOLIO HOLDINGS REPORTS

RECOMMENDATION: Receive and file the Investment Portfolio Holdings Reports dated February 29, 2020

15. MEMORANDUM OF UNDERSTANDING WITH CALIFORNIA STATE UNIVERSITY, FULLERTON (CSUF) AUXILIARY SERVICES CORPORATION FOR THE CONTINUED OPERATION OF THE CENTER FOR DEMOGRAPHIC RESEARCH

RECOMMENDATION:

1) Approve and authorize execution of Memorandum of Understanding with California State University, Fullerton Auxiliary Services Corporation for the Continued Operation of the Center for Demographic Research renewing commitment for the period of July 1, 2020 - June 30, 2023; and

2) Authorize payment in the amount of $53,100.32 to California State University Fullerton Auxiliary Services Corporation, to be invoiced on a quarterly basis

16. OPERATIONAL EFFICIENCY STUDY

RECOMMENDATION: Authorize issuance of an Agreement to Bookey Oren Global Water Technologies Ltd. in an amount not to exceed $68,000 in accordance with its proposal dated February 20, 2020

17. WIFIA INTEREST RATE REDUCTION REQUEST

RECOMMENDATION: Adopt Resolution authorizing execution and delivery of an amendment to/or re-execution and delivery of the WIFIA Loan Agreement to lower the interest rate therein and costs not to exceed $190,000

MATTER FOR CONSIDERATION

18. GOVERNOR EXECUTIVE ORDER N-25-20 WAIVING PROVISIONS OF THE BROWN ACT DUE TO THE COVID-19 STATE OF EMERGENCY

RECOMMENDATION: Take action as appropriate

INFORMATIONAL ITEMS

19. RAINFALL UPDATE

20. PFAS UPDATE

21. WATER RESOURCES REPORT

22. SANTA ANA WATERSHED PROJECT AUTHORITIES ACTIVITIES

23. COMMITTEE REPORTS

- ► Feb 28 – Property Management Committee (Chair Sheldon)
- ► Mar 05 – Communication and Legislative Liaison Committee (Chair Green)
- ► Mar 11 – Water Issues Committee (Chair Green)
- ► Mar 12 – Administration and Finance Issues Committee (Chair Ta)

VERBAL REPORTS

- PRESIDENT'S REPORT
- GENERAL MANAGER'S REPORT
- DIRECTORS' REPORTS
  - ► Reports on Conferences/Meetings Attended at District Expense (at which a quorum of the Board was present)
- GENERAL COUNSEL REPORT

ADJOURNMENT

Agenda Posting: In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted in the main lobby of the Orange County Water District, 18700 Ward Street, Fountain Valley, CA not less than 72 hours prior to the meeting date and time above. All written materials relating to each agenda item are available for public inspection in the office of the District Secretary. Backup material for the Agenda is available at the District offices for public review and can be viewed online at the District's website: www.ocwd.com.

Accommodations to the Disabled: Pursuant to the Americans with Disabilities Act, persons with a disability who require a disability-related modification or accommodation in order to participate in a meeting, including auxiliary aids or services, may request such modification or accommodation from the District Secretary at (714)378-3233, by email at jdurant@ocwd.com by fax at (714) 378-3373. Notification 24 hours prior to the meeting will enable District staff to make reasonable arrangements to assure accessibility to the meeting.

Availability of Agenda Material: As a general rule, agenda reports or other written documentation that has been prepared or organized with respect to each item of business listed on the agenda can be reviewed at www.ocwd.com. Copies of these materials and other disclosable public records distributed to all or a majority of the members of the Board of Directors in connection with an open session agenda item are also on file with and available for inspection at the Office of the District Secretary, 18700 Ward Street, Fountain Valley, California, during regular business hours, 8 a.m. to 5 p.m., Monday through Friday. If such writings are distributed to members of the Board of Directors on the day of a Board meeting, the writings will be available at the entrance to the Board of Directors meeting room at the Orange County Water District office.

AGENDA ITEM SUBMITTAL

Meeting Date: March 18, 2020

To: Board of Directors

From: Mike Markus

Staff Contact: C. Olsen / L. Tan

Budgeted: N/A
Program/Line Item No.: N/A
Cost Estimate: N/A
Funding Source: N/A
General Counsel Approval: N/A
Engineers Report Approved: N/A
CEQA Compliance: N/A

SUBJECT: PUBLIC HEARING ON 2018-19 ENGINEER'S REPORT ON GROUNDWATER CONDITIONS, WATER SUPPLY AND BASIN UTILIZATION

SUMMARY

The District Act requires that a public hearing be conducted on the annual Engineer's Report which analyzes groundwater conditions, water supply and basin utilization. Section 26 of the District Act requires that certain information be provided to the Board of Directors in March of each year before the Board considers levy of the replenishment assessment (RA). Action is scheduled for the April 15, 2020 Board of Directors meeting to consider the need and desirability to levy the RA, the additional RA, the basin equity assessment, the basin production percentage and the production limitation and surcharge.

Attachment(s):
- Affidavit of Publication of Public Hearing
- Presentation on the 2018-19 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization
- Draft 2018-19 Engineer's Report

RECOMMENDATION

Receive public hearing comments and file Engineer's Report

DISCUSSION/ANALYSIS

As required by the District Act, the annual Engineer's Report documents several specific findings regarding the conditions of the groundwater basin. A summary of those findings in the 2018-19 water year (from July 1, 2018 to June 30, 2019) is as follows:

GROUNDWATER CONDITIONS
2018-19 SUMMARY OF FINDINGS

1. Groundwater production totaled 303,496 acre-feet (AF).
2. Groundwater stored in OCWD's basin increased by 41,000 AF.
3. The accumulated overdraft on June 30, 2019 was 236,000 AF.
4. The annual overdraft was 96,700 AF.
5. Average annual overdraft for the immediate past five water years was 136,800 AF.
6. Projected annual overdraft for the current 2019-20 water year is 140,000 AF.
7. Projected annual overdraft for the ensuing 2020-21 water year is 84,000 AF.

8. Projected accumulated overdraft on June 30, 2020 is 237,000 AF.
9. Under the provisions of Section 27 of the District Act, a portion of the RA for the ensuing 2020-21 water year could be equal to an amount necessary to purchase up to 160,000 AF of replenishment water.

Section 31.5 of the District Act requires an investigation and annual report setting forth the following information related to water supply and basin utilization within the OCWD service area, together with other information as OCWD may desire:

WATER SUPPLY AND BASIN UTILIZATION
2018-19 SUMMARY OF FINDINGS

1. Water usage from all supplemental sources and non-local water sources totaled 113,251 AF.
2. Water usage from recycled water produced from within OCWD including the GWRS totaled 114,164 AF.
3. Water demands within OCWD totaled 393,222 AF.
4. Estimated demands for groundwater for the ensuing 2020-21 water year are 242,000 AF.

PRIOR RELEVANT BOARD ACTION(S) - N/A

The Orange County Register
2190 S. Towne Centre Place Suite 100
Anaheim, CA 92806
714-796-2209

5179533

ORANGE COUNTY WATER DISTRICT
ATTN: ACCOUNTS PAYABLE
PO BOX 20845
FOUNTAIN VALLEY, CA 92728-0845

AFFIDAVIT OF PUBLICATION

STATE OF CALIFORNIA, } **SS.**

County of Orange

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of The Orange County Register, a newspaper of general circulation, published in the city of Santa Ana, County of Orange, and which newspaper has been adjudged to be a newspaper of general circulation by the Superior Court of the County of Orange, State of California, under the date of November 19, 1905, Case No. A-21046, that the notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

02/29/2020

I certify (or declare) under the penalty of perjury under the laws of the State of California that the foregoing is true and correct:

Executed at Anaheim, Orange County, California, on Date: February 29, 2020.

Sandra Campos

Signature

PROOF OF PUBLICATION

Legal No. **0011368016**

NOTICE OF FILING ENGINEERING REPORT AND OF PUBLIC HEARING REGARDING GROUNDWATER CONDITIONS, WATER SUPPLY AND BASIN UTILIZATION WITHIN ORANGE COUNTY WATER DISTRICT

PLEASE TAKE NOTICE, that, pursuant to Sections 26 and 31.5 of the Orange County Water District Act, the written engineering investigation and report as to groundwater conditions, water supply and basin utilization has been received by the General Manager of said District. All operators of water producing facilities within said District are invited to call at the office of said District to examine said engineering investigation and report.

PLEASE TAKE FURTHER NOTICE, that a Public Hearing regarding groundwater conditions, water supply and basin utilization within the Orange County Water District will be held on Wednesday, March 18, 2020 at 5:30 p.m., or as soon thereafter as the matter may heard, in the offices of the Orange County Water District, 18700 Ward Street, Fountain Valley, California, at which time any person or operator of a water producing facility within said District or any person interested in the condition of the groundwater supplies and the amounts and source from which all persons and operators produce their total supply of water as well as the estimated difference in the cost of water produced from groundwater within the District or supplemental sources, may, in person or by representative, appear and submit evidence concerning the groundwater conditions of said District and to support or protest said engineering investigation and report.

Publish: Orange County Register February 29, 2020 11368016

Agenda Item # 1

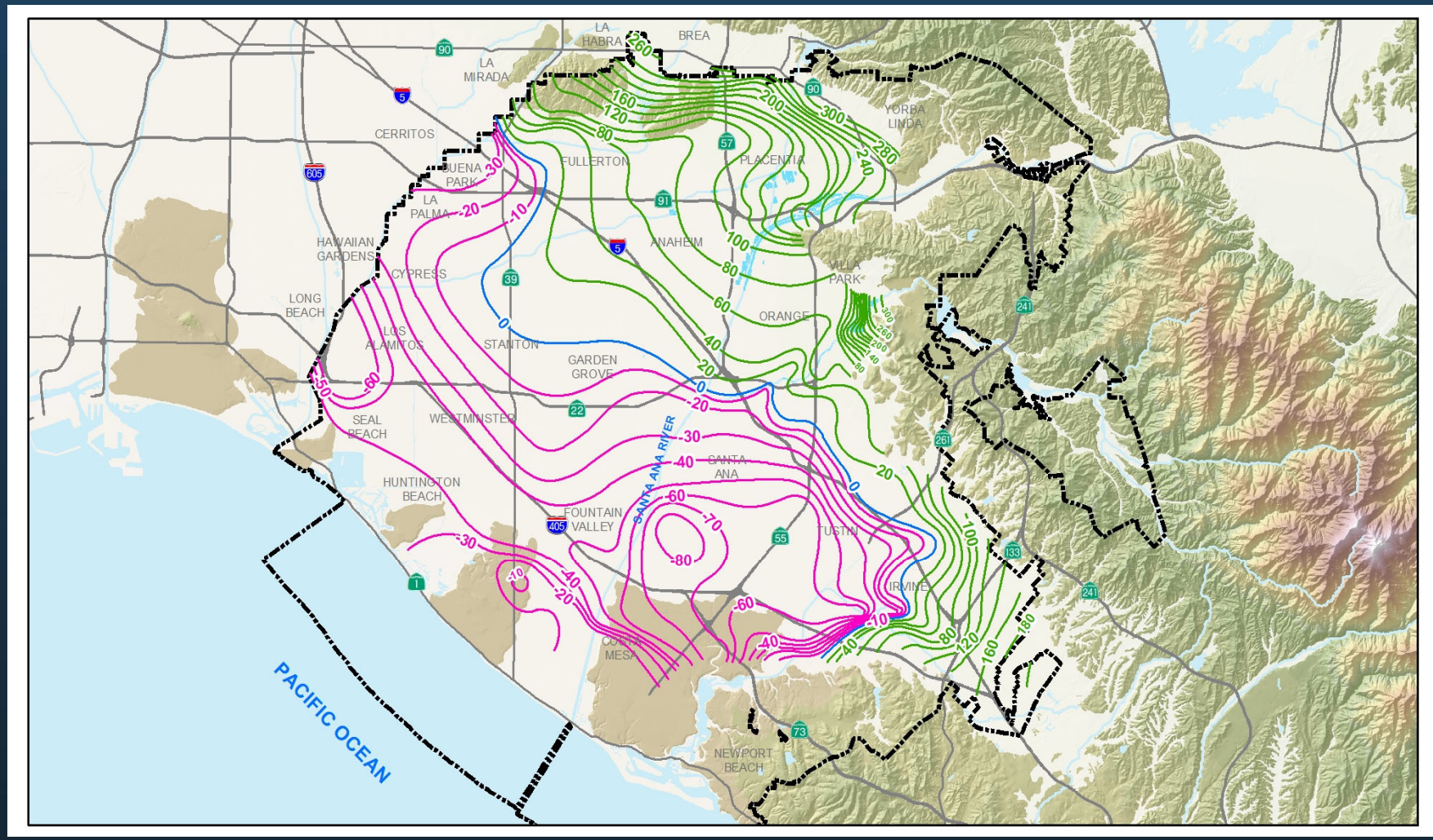
2018-19 ENGINEER'S REPORT

ON GROUNDWATER CONDITIONS, WATER SUPPLY AND BASIN UTILIZATION

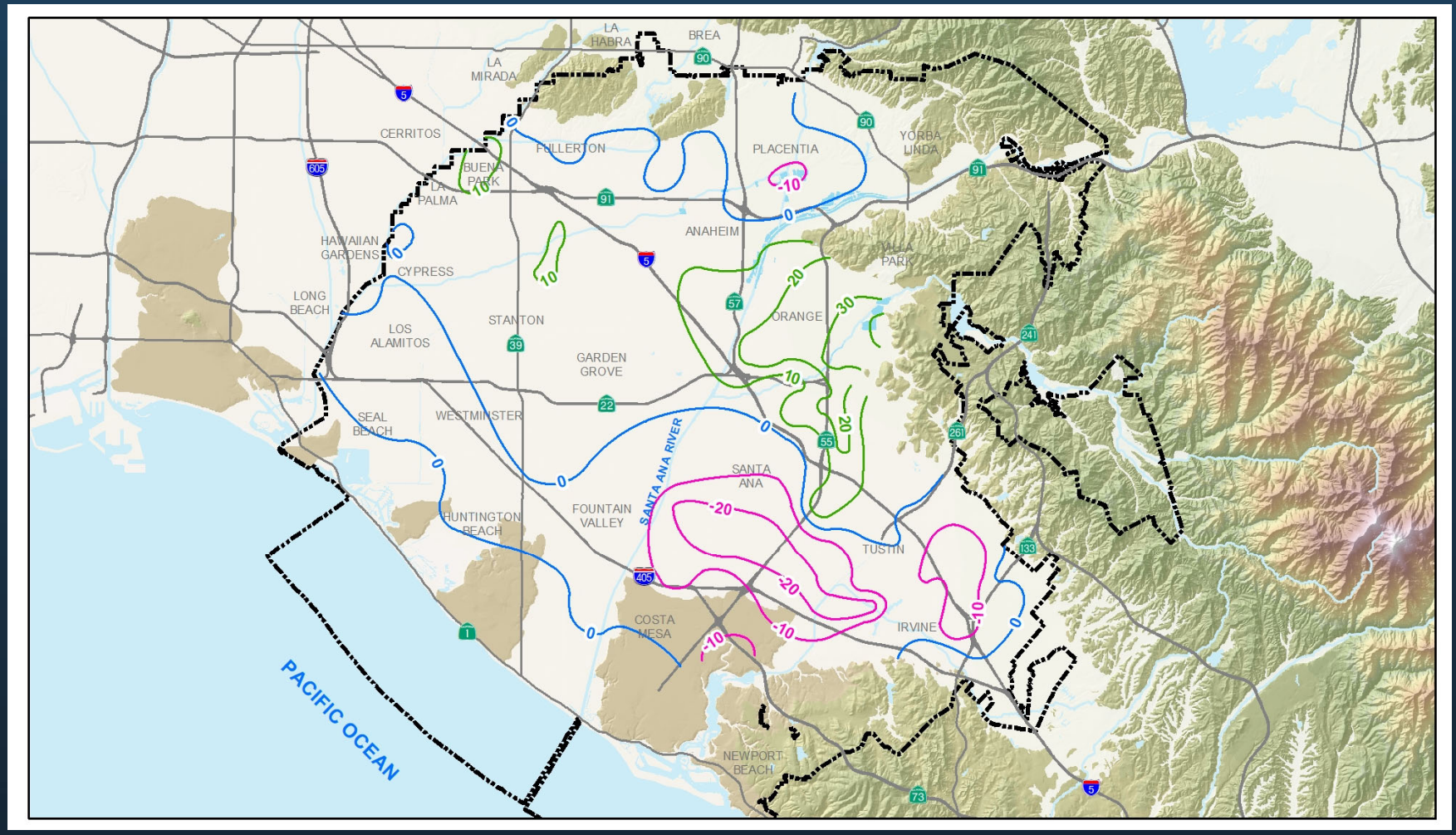
Board Meeting

March 18, 2020

- This presentation focuses on the following four specific key findings:
  1. Change in groundwater levels
  2. Total groundwater production
  3. Annual basin storage change
  4. Accumulated basin overdraft
- Using terminology required by District Act
- Findings cover July 1, 2018 to June 30, 2019

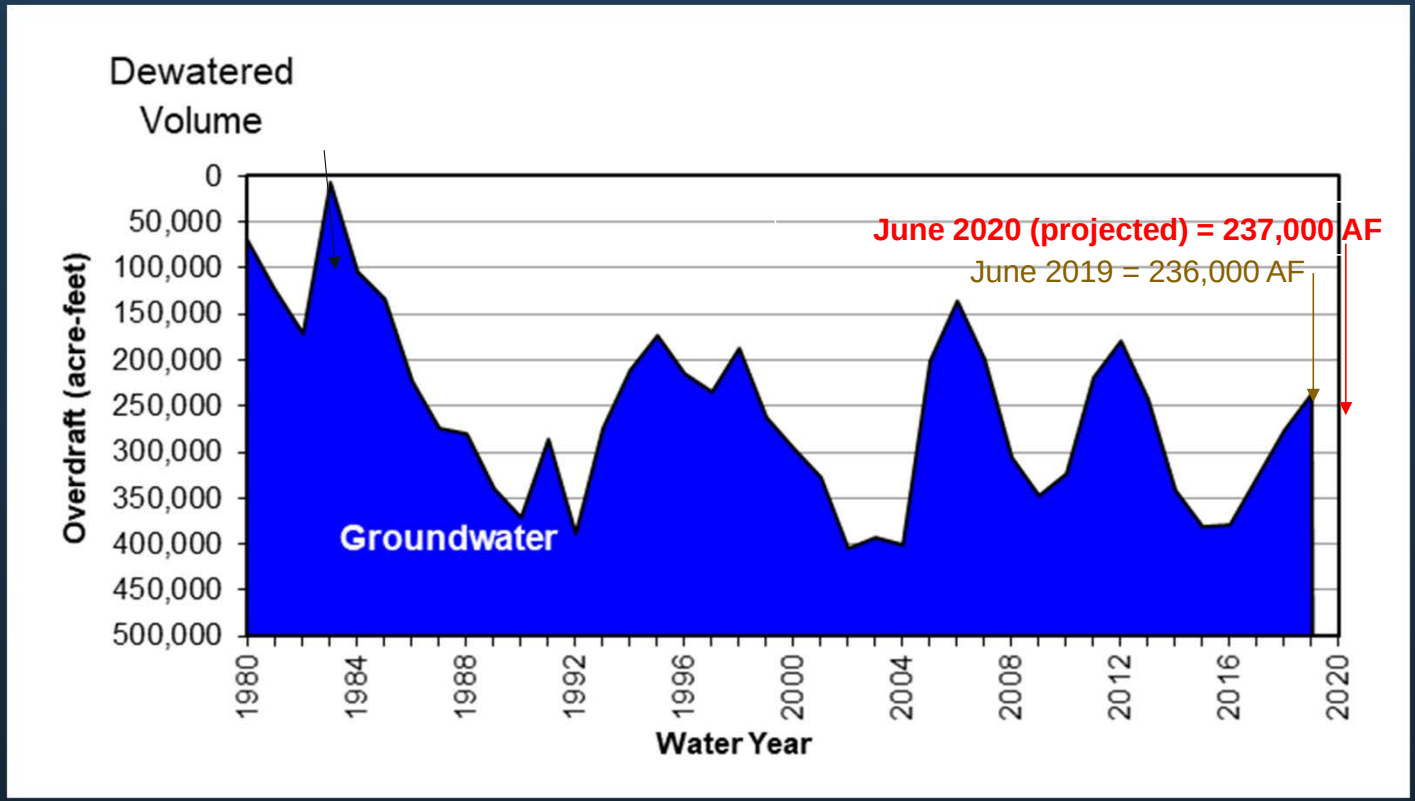


Groundwater Contour Map - June 2019 Principal Aquifer

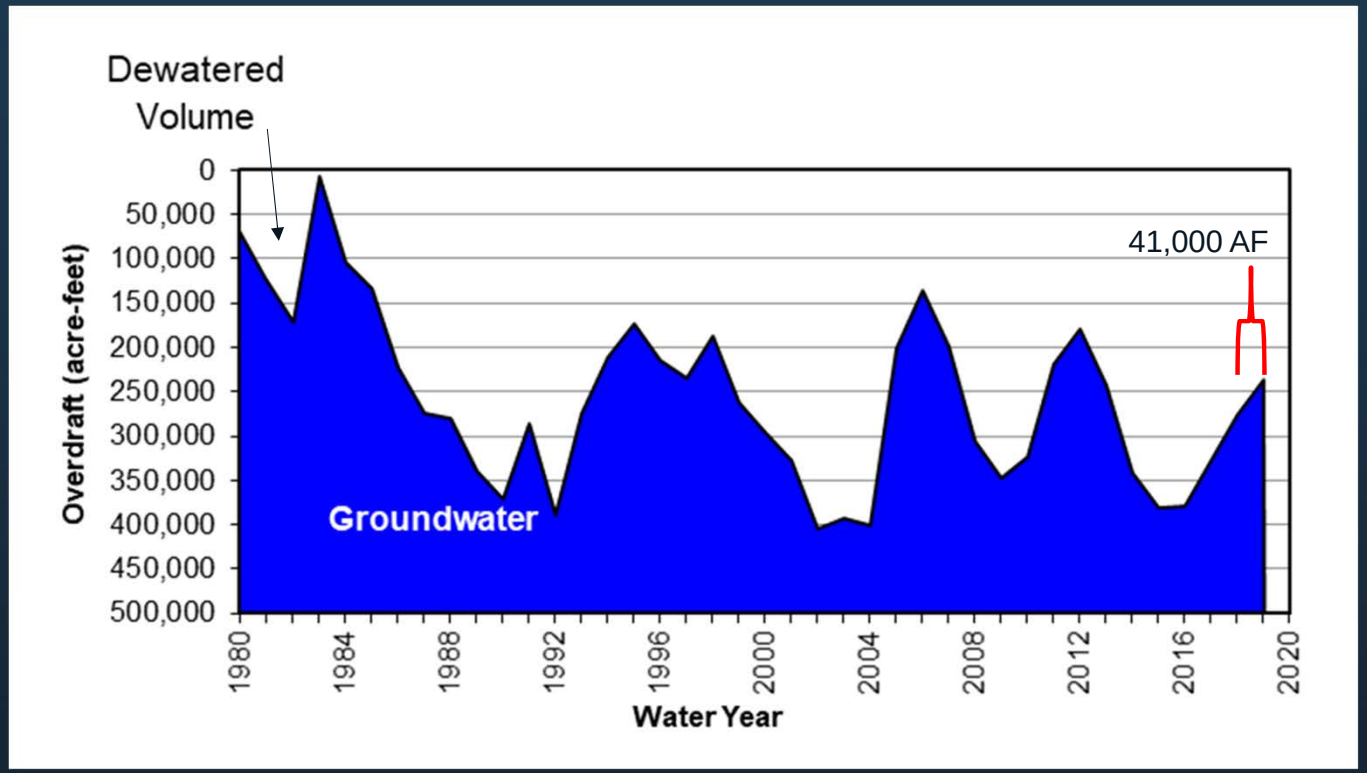


Groundwater Level Change Principal Aquifer

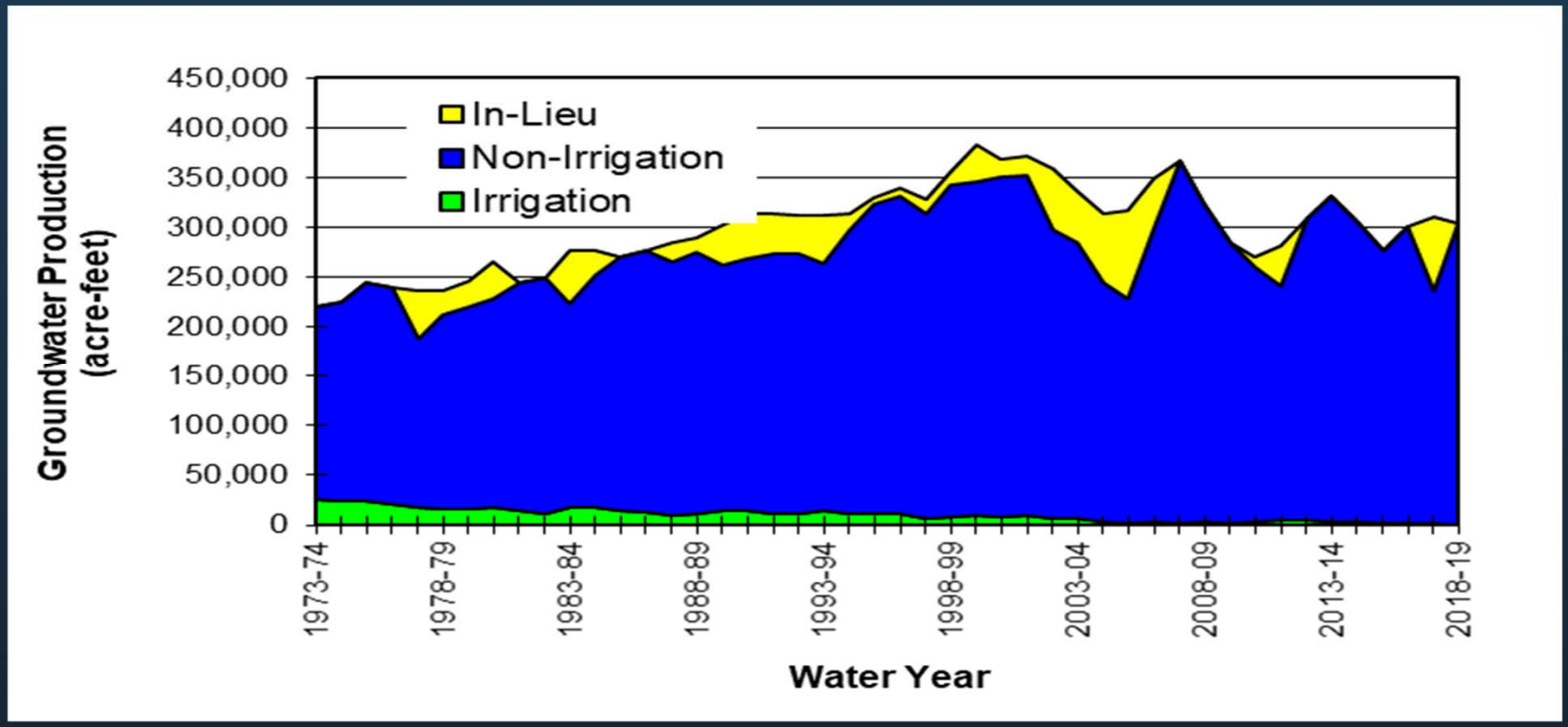
Projected June 30, 2020 Accumulated Overdraft



Basin Storage Increased by 41,000 AF in 2018-19



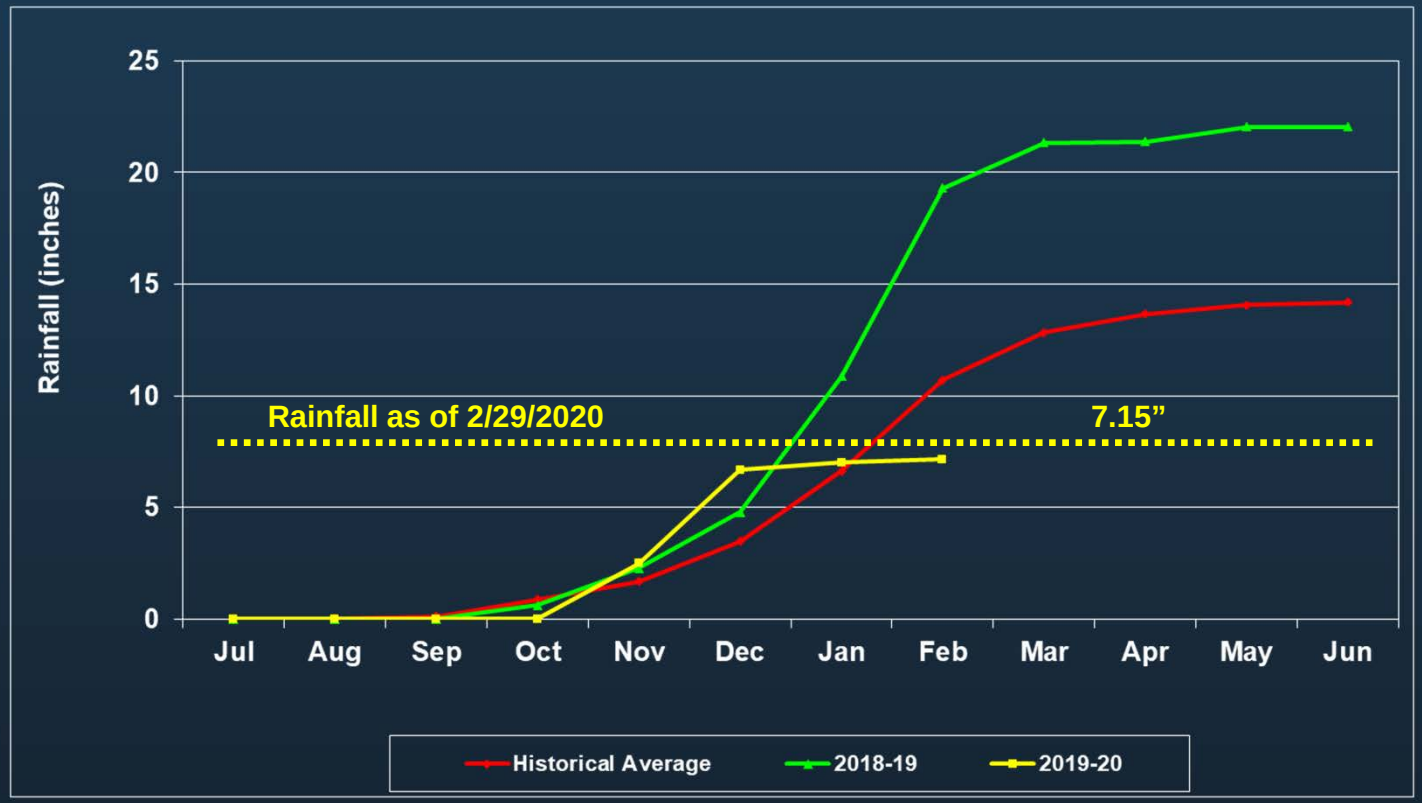
Groundwater Production Totaled 303,496 AF in 2018-19



- 2018-19 water demands were lower than 2017-18 water demands and included:
  - 303,496 AF Groundwater
  - 68,906 AF Imported water
  - 1,966 AF Santiago Creek native water
  - 18,854 AF Title 22 Recycled water (3,407 AF from GAP and 15,447 AF from IRWD)

Water Demands Totaled 393,222 AF in 2018-19

Current and Cumulative Field Headquarters Rainfall



- Consider action on the following for the ensuing water year 2020-21:
  - Basin Production Percentage (BPP)
  - Replenishment Assessment (RA)
  - Additional RA
  - Basin Equity Assessment (BEA)
  - Production Limitation and Surcharge

- Receive and File the 2018-19 Engineer's Report on Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District

DRAFT

2018-2019

ENGINEER'S REPORT ON

GROUNDWATER CONDITIONS,

WATER SUPPLY AND BASIN UTILIZATION

IN THE

ORANGE COUNTY WATER DISTRICT

FEBRUARY 2020

ORANGE COUNTY WATER DISTRICT
BOARD OF DIRECTORS

Denis R. Bilodeau, P.E.
Jordan Brandman
Cathy Green
Dina Nguyen, Esq.
Kelly E. Rowe, CFM, P.G., C.E.G, C.H.
Vicente F. Sarmiento, Esq.
Stephen R. Sheldon
Tri Ta
Roger C. Yoh, P.E.
Ahmad Zahra

Michael R. Markus, P.E.
General Manager

DIRECTORS

DENIS R. BILODEAU, P.E.
JORDAN BRANDMAN
CATHY GREEN
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STEPHEN R. SHELDON
TRI TA
ROGER C. YOH, P.E.
AHMAD ZAHRA

SINCE 1933

ORANGE COUNTY WATER DISTRICT

ORANGE COUNTY'S GROUNDWATER AUTHORITY

OFFICERS

President
VICENTE SARMIENTO, ESQ.

First Vice President
CATHY GREEN

Second Vice President
STEPHEN R. SHELDON

General Manager
MICHAEL R. MARKUS, P.E., D.WRE

February 19, 2020

Michael R. Markus
General Manager
Orange County Water District
Post Office Box 8300
Fountain Valley, CA 92728-8300

Dear Mr. Markus:

In accordance with Section 26 of the District Act, the 2018-2019 Engineer's Report on the Groundwater Conditions, Water Supply and Basin Utilization in the District is hereby submitted.

Precipitation for the water year July 1, 2018 through June 30, 2019 within the District's boundaries averaged 21.46 inches, which was one hundred sixty percent of the long-term average rainfall. The average discharge of Santa Ana River flow past Prado Dam for the water year was measured to be 247,177 acre-feet which represented one hundred eight percent of the 30-year average flow. Flow past the District's spreading grounds (including any flow from the Santiago Creek) that was lost to the Pacific Ocean totaled 75,794 acre-feet.

Total water demands within the District for the 2018-2019 water year were 393,222 acre-feet (excluding water used for groundwater replenishment and barrier maintenance). The use of supplemental water in the District's service area during the water year totaled 113,251 acre-feet. Groundwater production within the basin for the water year totaled 303,496 acre-feet which was a decrease of two percent from the prior water year. The In-Lieu program water was not available for purchase during the water year.

The accumulated basin overdraft decreased from 277,000 acre-feet on June 30, 2018 to 236,000 acre-feet on June 30, 2019 using the three-layer approach and the new benchmark for full-basin conditions. Under the provisions of Section 27 of the District Act, a portion of the Replenishment Assessment for the ensuing 2020-2021 water year could be equal to an amount necessary to purchase up to 160,000 acre-feet of replenishment water.

Truly yours,

Chris S. Olsen
Director of Engineering

Lo Tan
Principal Engineer

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EXECUTIVE SUMMARY

Total water demands within Orange County Water District (OCWD) were 393,222 acre-feet (AF) for the 2018-19 water year (beginning on July 1, 2018 and ending on June 30, 2019). Groundwater production for the water year totaled 303,496 AF including any available In-Lieu Program water. The use of supplemental water in OCWD's service area during the 2018-19 water year totaled 113,251 AF of which 70,872 AF resulted from the direct use by water agencies and districts and 42,379 AF were used for the purpose of groundwater replenishment and maintenance of seawater intrusion control barriers.

For the water year which ended on June 30, 2019, the "annual overdraft" (annual basin storage decrease without supplemental replenishment water) was 96,700 AF. The accumulated overdraft decreased from 277,000 AF on June 30, 2018 to 236,000 AF on June 30, 2019. Precipitation within the basin was 160 percent of the long-term average during the water year, totaling 21.46 inches.

Based on the groundwater basin conditions for the water year ending on June 30, 2019, OCWD may purchase up to 160,000 AF of water for groundwater replenishment during the ensuing water year, beginning on July 1, 2020, pursuant to the District Act.

ACKNOWLEDGMENTS

A number of public and private entities contributed data used in this report including:

City of Anaheim
City of Buena Park
East Orange County Water District
City of Fountain Valley
City of Fullerton
City of Garden Grove
Golden State Water Company
City of Huntington Beach
Irvine Ranch Water District
City of La Palma
Mesa Water District
Metropolitan Water District of Southern California
Municipal Water District of Orange County
City of Newport Beach
City of Orange
County of Orange, Public Works Department
Orange County Sanitation District
City of Santa Ana
Santa Ana Watershed Project Authority
City of Seal Beach
Serrano Water District
City of Tustin
United States Geological Survey
City of Westminster
Yorba Linda Water District

The cooperation received from all agencies is gratefully acknowledged.

This report is based on the 2018-19 Basic Data Report which is placed on file at the office of OCWD in Fountain Valley.

GLOSSARY OF ACRONYMS

ABIP	Alamitos Barrier Improvement Project
AF	Acre-Feet
ARTIC	Anaheim Regional Transportation Intermodal Center
AWPF	Advanced Water Purification Facility
BEA	Basin Equity Assessment
BPP	Basin Production Percentage
CPTP	Coastal Pumping Transfer Program
CUP	Conjunctive Use Program
EOS	Extraordinary Supply
GAP	Green Acres Project
GWRS	Groundwater Replenishment System
IRWD	Irvine Ranch Water District
MF	Microfiltration
mg/L	Milligrams per Liter
MBI	Mid-Basin Injection
MGD	Million Gallons per Day
MSL	Mean Sea Level
MWD	Metropolitan Water District of Southern California
MWDOC	Municipal Water District of Orange County
NO_3	Nitrate
O&M	Operation and Maintenance
OCSD	Orange County Sanitation District
OCWD	Orange County Water District
PFAS	per- and polyfluoroalkyl substances
RA	Replenishment Assessment
RO	Reverse Osmosis
RTS	Readiness-to-Serve
SAR	Santa Ana River
SARCCUP	Santa Ana River Conservation and Conjunctive Use Program
SBVMWD	San Bernardino Valley Municipal Water District
SPW	State Project Water
TDS	Total Dissolved Solids
UV	Ultraviolet
WRD	Water Replenishment District of Southern California

PART I: GROUNDWATER CONDITIONS

Section 25 of the OCWD Act requires that OCWD order an annual investigation to report on the groundwater conditions within the District's boundaries. A summary of the groundwater conditions for the water year covering July 1, 2018 to June 30, 2019 is as follows.

GROUNDWATER CONDITIONS
2018-19 SUMMARY OF FINDINGS

1. Groundwater production (including the In-Lieu Program) totaled 303,496 acre-feet (AF) for the 2018-19 water year.

2. Groundwater stored in the basin increased by 41,000 AF for the 2018-19 water year.

3. Accumulated Overdraft[1] on June 30, 2019 was 236,000 AF.[2]

4. Annual Overdraft was 96,700 AF for the 2018-19 water year.

5. Average Annual Overdraft[3] for the immediate past five water years (2014-15 through 2018-19) was 136,800 AF.

6. Projected Annual Overdraft[3] for the current 2019-20 water year is 140,000 AF.

7. Projected Annual Overdraft[3] for the ensuing 2020-21 water year is 84,000 AF.

8. Projected Accumulated Overdraft[2] on June 30, 2020 is 237,000 AF.

9. Under the provisions of Section 27 of the District Act, a portion of the 2020-21 Replenishment Assessment (RA) could be equal to an amount necessary to purchase up to 160,000 AF of replenishment water.[4]

[1] *Accumulated overdraft was calculated using OCWD's three-layer storage change methodology adopted on March 21, 2007 and the associated new benchmark for full-basin conditions. Water year 2005-06 was the first year this methodology was used. Additional explanation can be found in the report on "Evaluation of Orange County Groundwater Basin Storage and Operational Strategy" by OCWD in 2007.*

[2] *Water from the Metropolitan Water District of Southern California Long-Term Groundwater Storage Program was included as part of the total stored water in determining the basin's accumulated overdraft.*

[3] *Annual overdraft is defined in the District Act as "the quantity, determined by the Board of Directors, by which the production of groundwater supplies within said District during the water year exceeds the natural replenishment of such groundwater supplies in such water year."*

[4] *Determined by adding the five-year average annual overdraft (136,800 AF) to one-tenth of the accumulated overdraft (236,000 AF) which results in the following:*
136,800 AF + [(236,000 AF) x 0.10] = 160,400 AF (or 160,000 AF when rounded).

BASIN HYDROLOGY

Groundwater conditions in the Orange County groundwater basin are influenced by the natural hydrologic conditions of rainfall, capture and recharge of Santa Ana River (SAR) and Santiago Creek stream flows, natural infiltration of surface water, and the transmissive capacity of the basin. The basin is also influenced by groundwater extraction and injection through wells, use of imported water for groundwater replenishment, wastewater reclamation and water conservation efforts and activities throughout OCWD's service area.

The water year beginning on July 1, 2018, yielded an average of 21.46 inches of rainfall within OCWD's boundaries, which is approximately 160 percent of the long-term annual average of 13.40 inches. Rainfall data within OCWD's boundaries was provided by the Orange County Public Works Department. The previous water year (2017-18) had rainfall equaling 3.88 inches. The average annual rainfall in the OCWD service area for the five-year period (from July 1, 2014 through June 30, 2019) was 12.00 inches, and below-average rainfall in the watershed tends to lead to lower flows in the SAR reaching Orange County. Stream flow in the SAR measured downstream of Prado Dam for the water year 2018-19 totaled 247,177 AF which was approximately 108 percent of the 30-year flow average of 228,051 AF.

GROUNDWATER PRODUCTION

Groundwater production from wells within OCWD for the 2018-19 water year totaled 303,496 AF (excluding In-Lieu Program water, MWD Groundwater Storage Program extractions, and any groundwater used for the Talbert Barrier): 302,756 AF for non-irrigation and 740 AF for irrigation uses. The term "irrigation" used in the District Act and herein refers to irrigation for agricultural, horticultural or floricultural crops and for pasture grown for commercial purposes.

OCWD's In-Lieu Program replaces groundwater supplies with imported water to reduce groundwater pumping. During the 2018-19 water year, the In-Lieu Program water was not available for purchase from MWD. Historical data on the annual groundwater production and In-Lieu quantities within OCWD are shown in Figure 1. Table 1 summarizes the annual groundwater production and In-Lieu Program water for the period of 1969-70 through 2018-19.

Groundwater production and In-Lieu Program quantities for 2018-19 for the major groundwater producers are summarized in Appendix 1. The groundwater production for all producers exceeding 25 AF per year for non-irrigation and irrigation purposes are presented in Appendices 2 and 3, respectively.

FIGURE 1. Groundwater Production

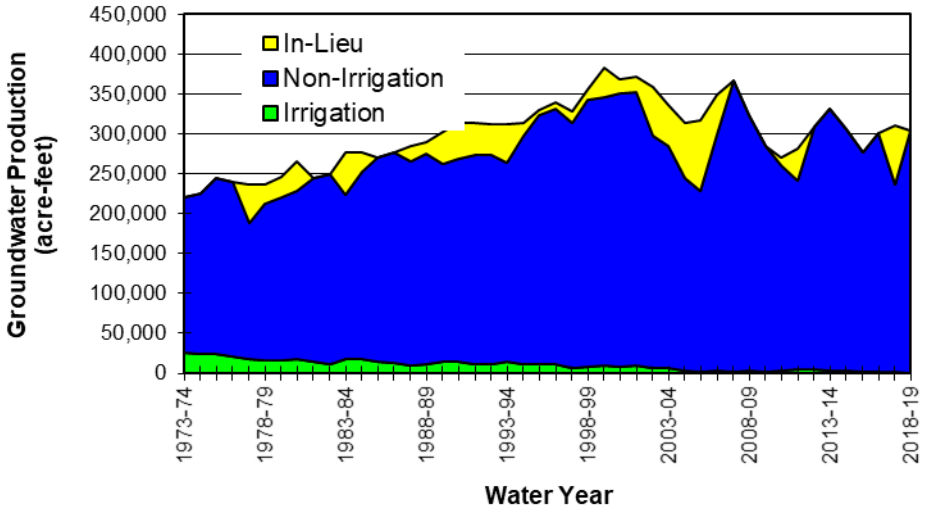


TABLE 1. Historical Groundwater Production Within OCWD

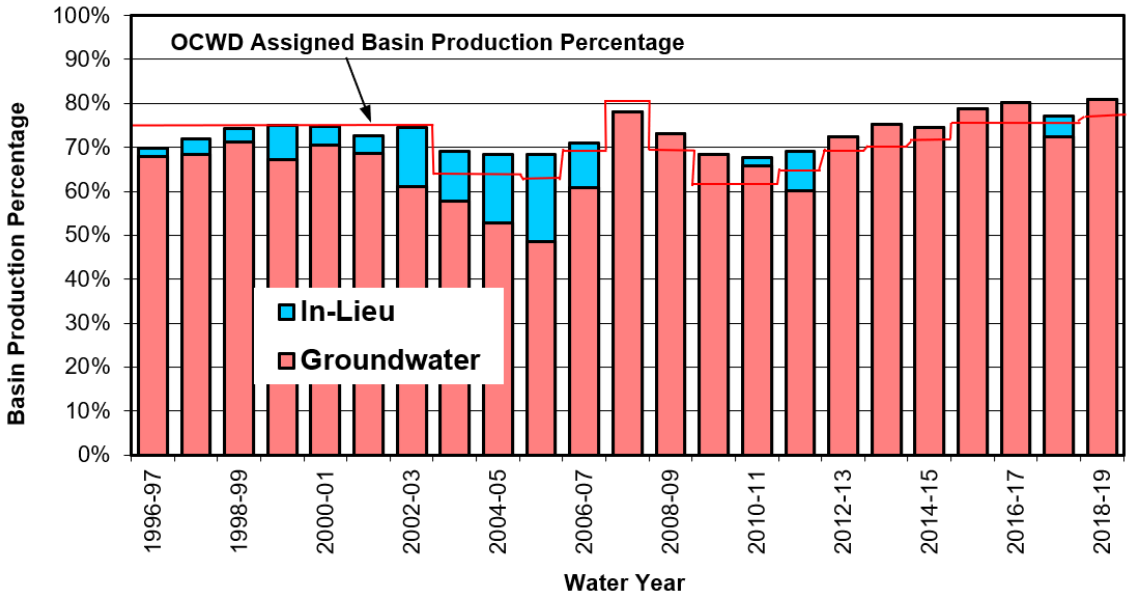
Water Year Jul 1-Jun 30	Groundwater Production (AF)	In-Lieu Program (AF)	Water Year Jul 1-Jun 30	Groundwater Production (AF)	In-Lieu Program (AF)
1969-70	194,379	-	1994-95	298,217	15,622
1970-71	203,923	-	1995-96	324,111	5,542
1971-72	229,048	-	1996-97	331,406	7,883
1972-73	214,983	-	1997-98	313,805	15,096
1973-74	218,863	-	1998-99	342,823	13,352
1974-75	225,597	-	1999-00	345,362	38,007
1975-76	245,456	-	2000-01	350,385	18,640
1976-77	243,511	-	2001-02	352,113	19,473
1977-78	188,407	48,290	2002-03	297,191	61,463
1978-79	213,290	23,792	2003-04	284,621	52,168
1979-80	221,453	24,861	2004-05	244,370	69,617
1980-81	228,943	36,373	2005-06	228,159	89,216
1981-82	244,184	-	2006-07	299,118	50,740
1982-83	249,548	-	2007-08	366,185	-
1983-84	223,207	52,822	2008-09	324,147	-
1984-85	252,070	25,198	2009-10	285,575	-
1985-86	270,932	-	2010-11	259,861	10,435
1986-87	276,354	-	2011-12	241,082	40,564
1987-88	265,226	18,856	2012-13	309,295	-
1988-89	275,077	15,022	2013-14	330,782	-
1989-90	261,190	38,961	2014-15	305,259	-
1990-91	266,745	44,588	2015-16	277,090	-
1991-92	271,224	39,789	2016-17	301,637	-
1992-93	273,587	38,900	2017-18	236,916	73,108
1993-94	264,159	48,134	2018-19	303,496	-

BASIN PRODUCTION PERCENTAGE

The Basin Production Percentage (BPP) is defined in the District Act as "…*the ratio that all water to be produced from groundwater supplies within the district bears to all water to be produced by persons and operators within the district from supplemental sources as well as from groundwater within the district.*" The BPP applies only to water producers that utilize more than 25 AF of groundwater per water year. Water producers that use 25 AF or less from the groundwater basin are excluded from the production percentage limitation.

The BPP for the 2018-19 water year was established at 77.0 percent by the OCWD Board of Directors. The overall BPP achieved within OCWD for non-irrigation use in the 2018-19 water year was 80.9 percent. The achieved pumping is greater than 77.0 percent primarily due to additional extraction from several water quality projects that are given a Basin Equity Assessment (BEA) exemption to pump groundwater above the BPP. The production percentage achieved by each major producer for non-irrigation use is presented in Appendix 1. Historical assigned and achieved BPPs are illustrated below in Figure 2.

FIGURE 2. Groundwater BPP



GROUNDWATER LEVELS

Groundwater levels in the Orange County groundwater basin are shown on Plate 1. Groundwater level data used to prepare this plate were collected during late June and early July 2019 from over 500 production and monitoring wells screened within the principal aquifer system (approximately 300 to 1,200 feet deep), from which over 90% of basin pumping occurs. The groundwater elevation contours range from 10 to 80 feet

below mean sea level in the coastal area of the basin due to pumping. A general indicator of changing basin levels is the location of the zero (0) mean sea level (MSL) elevation contour each year (MSL elevations are referenced to Vertical Datum NGVD 29). The zero MSL contour moved slightly seaward (ranging from 0.1 to 1.2 miles) when compared to its alignment the prior year, indicating an increase in groundwater levels in the Principal aquifer system from June 2018 to June 2019.

Plate 1 also shows the relatively large depression in groundwater levels in the southern portion of the city of Santa Ana area due to the large concentration of production wells in this area. Groundwater levels are 60 to 70 feet lower than surrounding areas. The potential impacts of this pumping depression include increased seawater intrusion and low well water levels which have been mitigated by OCWD's basin management programs including the Talbert seawater barrier expansion, Groundwater Replenishment System (GWRS) and mid-basin injection (MBI) wells. However, should groundwater production in this area substantially increase, the potential negative impacts should be evaluated in advanced as they could, at least, partially offset the mitigative benefits of the aforementioned basin management programs.

Plate 2 shows the change in groundwater levels from June 2018 to June 2019 for the Principal aquifer system. In the Principal aquifer, groundwater levels generally rose moderately throughout the entire groundwater basin.

Plate 3 shows the groundwater elevation trends within the Principal aquifer since 1980 at four key well locations across the groundwater basin. In the Pressure area of the basin at key wells GG-16 and COS-PLAZ, seasonal groundwater level fluctuations are noticeably larger than at AM-14 and IDM-3 located in the Anaheim and Irvine Forebay areas, respectively. All four key well locations show an increased water level response during or immediately following high-recharge wet periods such as 2005-06, 2011-12, and 2018-19, but the response is largest at AM-14 due to its proximity to the OCWD spreading grounds.

During the water year 2018-19, the increase of storage of 41,000 AF largely resulted from the significant rise in groundwater levels in the Orange area of the Forebay, from approximately the SAR near Burris Basin to Santiago Basin, which experienced the largest rise. In the Shallow aquifer, groundwater levels rose by more than 30 feet immediately surrounding Santiago Basin and rose by 10 to 20 feet in the greater Orange area, outweighing the decline of 10 to 20 feet at the OCWD spreading basins in Anaheim and the smaller decline of 1 to 2 feet in the Irvine Sub-basin from June 2018 to June 2019. In the Principal aquifer, groundwater levels rose by 30 to 50 feet immediately surrounding Santiago Basin, 10 to 30 feet in the greater Orange area, and 5 to 10 feet through the central portion of the basin, offsetting declines of 5 to 25 feet in other areas of the basin from June 2018 to June 2019. In the Deep aquifer, groundwater levels rose by 5 to 15 feet in the Anaheim and Orange Forebay areas but decreased throughout the Pressure area of the basin from June 2018 to June 2019.

COASTAL GROUNDWATER CONDITIONS

The coastal portion of the groundwater basin, essentially that area within five miles of the coast, is sensitive to seawater intrusion potential and seasonal effects on production well capacity due to lower groundwater levels. Coastal groundwater levels are affected by groundwater production, overall groundwater storage in the basin, and, to a lesser extent, injection at the Talbert and Alamitos barriers.

Coastal groundwater production for water year 2018-19 totaled 95,470 AF (includes Fountain Valley, Huntington Beach, Dyer Road Well Field and Deep Aquifer Treatment System wells in Irvine, Mesa Water, Newport Beach, OCWD deep wells in Fountain Valley, Seal Beach, and Westminster). Despite a basin-wide decrease in total demand of 6%, coastal production for the water year 2018-19 was 42% more than the prior water year when pumping was reduced due to the In-Lieu Program. The increase in coastal production of 28,071 AF from the prior water year was approximately equal to the amount of coastal In-Lieu water taken water during that year (28,810 AF).

Talbert Barrier injection totaled 27,445 AF for water year 2018-19, representing a significant increase of 32% from the prior water year. The injection increase was due to increased coastal production relative to the prior year in which the extensive In-Lieu pumping reduction led to higher groundwater levels and a reduced injection requirement that year. During water year 2018-19, with no In-Lieu program and increased coastal production, more injection was necessary to maintain protective elevations seaward of the barrier.

A key OCWD monitoring well M26 is located near Adams Avenue seaward of the barrier. Shallow aquifer groundwater levels were maintained at or slightly above protective elevations of approximately 3 feet above MSL throughout the water year 2018-19 except for brief periods related to the shutdowns of the GWRS advanced water purification facility (AWPF).

At the Alamitos Barrier, the OCWD portion of injection totaled 2,015 AF for water year 2018-19, typical of recent years but more than double that of the prior water year which had abnormally low injection related to construction activities for the Alamitos Barrier Improvement Project (ABIP). The Alamitos Barrier injection total for water year 2018-19 included all sources of water (98% imported and 2% recycled) but only represents OCWD's share, which is less than half of the total injection based on the barrier wells that are located within Orange County versus Los Angeles County. The goal of the Leo J. Vander Lans treatment plant is to provide recycled water for a majority of the supply to the Alamitos Barrier, and the remainder coming from treated imported water. However, the recycled portion was less than 33% the last six years because of treatment plant shutdowns related to operational issues and wastewater supply interruptions from the Los Angeles County Sanitation District's Long Beach treatment plant.

During water year 2018-19, all seventeen new injection wells constructed during the ABIP were placed on-line at conservatively low flow rates for testing purposes and will be increased in the upcoming water year, thereby increasing Alamitos Barrier injection capacity and preventing brackish water intrusion through previously vulnerable portions of the barrier alignment.

In the Sunset Gap area, OCWD has been investigating seawater intrusion, which has been found primarily in the Beta aquifer (upper portion of the Principal aquifer). Groundwater levels in the Beta aquifer at key OCWD monitoring wells BS10 and BS11 on the Naval Weapons Station Seal Beach are typically 5 to 15 feet below MSL and ended water year 2018-19 at approximately 8 feet below MSL, five feet higher than at the beginning of the water year. OCWD is currently expanding its existing Alamitos Gap groundwater flow model, which will be utilized to develop a recommended seawater intrusion control plan for the Sunset Gap.

ANNUAL OVERDRAFT

Annual groundwater basin overdraft, as defined in the District Act, is the quantity, determined by the Board of Directors, by which the production of groundwater supplies within the District during the water year exceeds the natural replenishment of such groundwater supplies in such water year. This difference between extraction and replenishment can be estimated by determining the change in volume of groundwater in storage that would have occurred had supplemental and recycled water not been used for any groundwater recharge purpose, including seawater intrusion protection, advanced water reclamation and the In-Lieu Program.

For the 2018-19 water year, it is estimated that the volume of groundwater in storage increased by 41,000 AF. Approximately 137,700 AF of water was supplied to the basin as follows: 1) directly from the percolation or injection of purchased imported water from the Colorado River and State Water Project, 2) use of recycled water to supplement purchased imported water in the Alamitos seawater intrusion barrier, and 3) use of GWRS recycled water for basin replenishment. Therefore, the annual overdraft was 96,700 AF for the 2018-19 water year. For the five-year period from July 1, 2014 to June 30, 2019, an annual average of approximately 158,000 AF of supplemental water and recycled water as percolated or injected into the underground basin for replenishment or used directly in place of pumping groundwater (i.e., In-Lieu Program). The average annual overdraft during the same five-year period was approximately 136,800 AF.

GROUNDWATER BASIN ACCUMULATED OVERDRAFT

The accumulated overdraft, as defined in the District Act, is the quantity of water needed to be replaced at OCWD's intake area to prevent landward movement of ocean water into

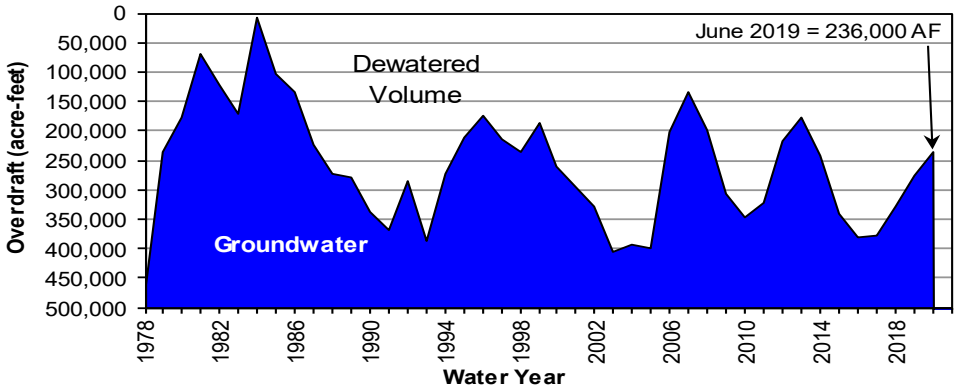
the fresh groundwater body. Landward movement of ocean water can be prevented if groundwater levels near the coast are several feet above sea level. Groundwater levels along the coast are related to the volume of water stored in the intake area, water pumped from the entire basin and the pattern or location of pumping. However, the Talbert and Alamitos seawater intrusion control projects have been implemented to prevent landward movement of ocean water into the fresh groundwater body. Due to the operation of seawater intrusion barrier facilities, there is no longer a direct correlation between accumulated overdraft and controlling seawater intrusion. These facilities allow greater utilization of the storage capacity of the groundwater basin. OCWD is also dedicated to maximizing its replenishment capabilities by actively negotiating with the U.S. Army Corps of Engineers to increase its water conservation program behind Prado Dam and implementing a Long-Term Facilities Plan to evaluate cost-effective improvements to its groundwater recharge capabilities.

In February 2007, OCWD staff completed a report entitled "Evaluation of Orange County Groundwater Basin Storage and Operational Strategy." This report presented a new methodology that had been developed, tested, and documented for calculating accumulated overdraft and storage change based on a three-aquifer layer approach. Furthermore, the report provided the basis for calculating accumulated overdraft using a new full-basin benchmark that was developed for each of the three aquifer layers, which in effect replaces the traditional single-layer full benchmark of 1969.

The annual analysis of basin storage change and accumulated overdraft for water year 2018-19 has been completed. Based on the three-layer methodology, an accumulated overdraft of 236,000 AF was calculated for the water year ending June 30, 2019. The accumulated overdraft for the prior water year ending June 30, 2018 was 277,000 AF (also calculated using the three-layer storage method). Therefore, an annual increase of 41,000 AF (reported earlier herein this report) in stored groundwater was calculated as the difference between the June 2018 and June 2019 accumulated overdrafts.

Figure 3 shows the accumulated basin overdraft quantities for the period 1979 through 2019.

FIGURE 3. Accumulated Basin Overdraft



The accumulated overdraft for the current water year ending on June 30, 2020 is projected to be 237,000 AF. The projected annual overdraft is estimated to be 140,000 AF. This quantity is based on assumed annual groundwater production of approximately 298,000 AF for the current water year (including groundwater pumping within the BPP, In-Lieu Program water, groundwater pumped above the BPP from water quality improvement projects and MWD Groundwater Storage Program extractions) and that natural replenishment (including captured SAR flows and incidental recharge) is estimated to be approximately 182,000 AF for the basin under average rainfall conditions. In addition, GWRS production is projected to reach 103,000 AF.

Projected annual overdraft for the ensuing water year 2020-21 is estimated to be 84,000 AF. This estimate is based on the assumption that total annual groundwater production for the ensuing water year will be 242,000 AF, a figure that is based upon an assumed BPP of 77 percent and includes 18,000 AF of production above the BPP from water quality improvement projects (discussed further in the subsequent section entitled Recommended Basin Production Percentage). The natural replenishment is estimated to be 158,000 AF (average of last five years) under average rainfall conditions, and the GWRS production is projected to be 97,000 AF.

OCWD, MWD, the Municipal Water District of Orange County (MWDOC) and participating producers approved the funding agreement for the MWD Long-Term Groundwater Storage Program on June 25, 2003. This conjunctive use program (also informally referred to as MWD CUP) provides for MWD to store up to 66,000 AF in the OCWD groundwater basin to be pumped (less basin losses) by participating producers in place of receiving imported supplies during water shortage events. A compensation package from MWD was included in the agreement to build eight new groundwater production wells, improvements to the seawater intrusion barrier, construction of the Diemer Bypass Pipeline and an annual administrative fee. The preferred means to store

water in the MWD storage account has been through the In-Lieu deliveries to participating groundwater producers. Water into the MWD storage account has also been conducted through direct replenishment utilizing OCWD Forebay recharge basins. In any event, the water stored or extracted by MWD is considered as MWD supply and not groundwater production. There was no MWD CUP water stored or extracted in water year 2018-19 and the balance remains zero AF in the MWD CUP account at the end of the water year. The annual quantities and cumulative totals of MWD water stored since the inception of the program are shown in Appendix 4. It is important to note that the reported quantities do not include pumping extractions from the account or basin losses.

In April 2019, OCWD established the Santa Ana Conservation and Conjunctive Use Program (SARCCUP) water bank in the OCWD groundwater basin. The SARCCUP water bank can contain up to 36,000 AF of water to be used during dry years, as determined by OCWD. Sources of water for the bank include imported water and surplus State Project Water (SPW) from San Bernardino Valley Municipal Water District (SBVMWD). The SBVMWD, a SPW contractor, and MWD have an agreement in which surplus SPW purchased by MWD is made available to OCWD and other SARCCUP agencies for storage in the multiple water banks in the SAR watershed. Surplus SPW purchased from MWD can be considered Extraordinary Supply (EOS) water which can be used during years when MWD reduces imported supplies via an allocation process. For accounting purposes, two types of water will be tracked in the SARCCUP water bank. The first is imported water, which is designated as local water and can be used in dry years as determined by OCWD. The second is the EOS water which is surplus SPW. The EOS water can be used during dry years or during allocation years.

The SARCCUP water bank was financed by a $55M Proposition 84 Integrated Regional Water Management grant from the Department of Water Resources and local matching funds from participating agencies including OCWD, SBVMWD, Inland Empire Utilities Agency, Western Municipal Water District and Eastern Municipal Water District. OCWD is expecting to begin placing water into the SARCCUP water bank in water year 2020-21.

REPLENISHMENT RECOMMENDATION

Section 27(b) of the District Act states the following:

"*The total of the replenishment assessment levied in any year shall not exceed an amount of money found to be necessary to purchase sufficient water to replenish the average annual overdraft for the immediate past five water years plus an additional amount of water sufficient to eliminate over a period of not less than 10 years nor more than 20 years, the accumulated overdraft, plus an amount of money to pay the costs of initiating, carrying on, and completing any of the powers, projects and purposes for which this district is organized.*"

Based upon Section 27(b), that portion of the RA that is used for water purchases for the ensuing water year 2020-21 is limited to the amount needed to purchase 160,000 AF as calculated below:

Five-year (7/1/2014 through 6/30/2019) Average Annual Overdraft* = 136,800 AF
Accumulated Overdraft (End of Water Year 2018-19) = 236,000 AF
Assumed Time Period to Eliminate Accumulated Overdraft = 10 years
Potential Water Purchase Amount: 136,800 AF + (236,000 AF/10 years) = 160,400 AF (use 160,000 AF)

**Referred to as the Average Annual Overdraft in Section 27(b) of the District Act.*

Table 2 presents the proposed 2020-21 water budget expenses, which shows the proposed quantity of purchased water (3,000 AF) being significantly less than the prescribed limit of 160,000 AF as allowed for under the provisions of Section 27(b) of the District Act.

TABLE 2. 2020-21 Water Budget Expenses

Water Source	Amount (AF)	Unit Cost ($/AF)	Total Cost ($)
Alamitos Barrier	3,000	$1,220.00	$ 3,660,000
MWD Untreated Full-Service Water	0	$768.00	$ 0
Water Purchases Sub-total	3,000	—	$ 3,660,000
Applicable Charges			**Total Cost ($)**
MWD Readiness to Serve Charge	—	—	$ 3,700,000
MWDOC Groundwater Charge	—	—	$ 650,000
MWD Capacity Charge	—	—	$ 1,100,000
Total Expenses			$ 9,110,000

RECOMMENDED BASIN PRODUCTION PERCENTAGE

In December 2002, OCWD approved a basin management approach for determining the BPP for future water years. The management approach is based upon the development of a base amount of groundwater production the basin can annually sustain utilizing dependable water supplies OCWD expects to receive. It is a policy for OCWD to provide an estimate of the BPP each January for the following fiscal year to assist the groundwater producers in the preparation of their annual budgets.

The BPP does not restrict the amount of groundwater that a groundwater producer may pump; but a groundwater producer must pay the BEA on any groundwater production (other than BEA-exempt groundwater) above the BPP. The BEA is set at an amount so that groundwater production above the BPP cost the same amount as imported supplemental water. If groundwater producers produced groundwater significantly above the BPP, this additional groundwater production could increase the annual overdraft (and, over time, increase the accumulated overdraft), with potential detriments

overdraft (and, over time, increase the accumulated overdraft), with potential detriments to the basin, including seawater intrusion. Substantial groundwater production significantly above the BPP could also impair OCWD's ability to manage the groundwater basin for sustainable groundwater production. The OCWD Act provides regulatory powers to OCWD that can be exercised by OCWD, including the setting of basin production limitations and surcharges, and mid-year modifications to the BPP and BEA, to address potential production of significant quantities of groundwater above the BPP. The OCWD Board of Directors may approve a surcharge, in an amount to be determined in its discretion, for production by a producer in excess of any approved BPP or production limitation.

A BPP of 77 percent is currently being proposed for the ensuing water year 2020-21. Analysis of the groundwater basin's projected accumulated overdraft, the available supplies to the basin (assuming below-average hydrology) and the projected pumping demands indicate that this level of pumping could potentially be sustained for 2020-21 without detriment to the basin. Under normal conditions, the annual groundwater production could reach 323,000 AF. However, it is anticipated that the groundwater production for the ensuing water year 2020-21 will decrease to approximately 224,000 AF due to the water quality impacts of per- and polyfluoroalkyl substances (PFAS). Because of the State Division of Drinking Water setting of a Response Level of 10 parts per trillion for perfluorooctanic acid, OCWD anticipates that up to 70 production wells could be shutdown until treatment systems can be installed.

In order to achieve water quality objectives in the groundwater basin, it is estimated for the ensuing water year 2020-21 that additional production of approximately 18,000 AF (above the BPP) will be undertaken by the City of Tustin, City of Garden Grove, City of Huntington Beach, Mesa Water District and Irvine Ranch Water District (IRWD). These agencies need the additional pumping allowance in order to accommodate groundwater quality improvement projects. As in prior years, production above the BPP from these projects would be partially or fully exempt from the BEA as a result of the benefit provided to the basin by removing poor-quality groundwater and treating it for beneficial use.

In March 2020, staff will review with the OCWD Board of Directors the basis and the assumptions made for the proposed BPP and receive any direction on the matter. In April 2020, staff will again apprise the OCWD Board of Directors on the status of the aforementioned conditions. If the estimates of basin supplies in the current or ensuing year are substantially different than those contained in the respective conditions, a revised BPP may then be recommended.

PART II: WATER SUPPLY AND BASIN UTILIZATION

Section 31.5 of the District Act requires an investigation and annual report setting forth the following information related to water supply and basin utilization within the OCWD service area, together with other information as OCWD may desire:

WATER SUPPLY AND BASIN UTILIZATION
2018-19 SUMMARY OF FINDINGS

1. Water usage from all supplemental sources and non-local water sources (if any) totaled 113,251 AF for the 2018-19 water year including any available In-Lieu Program water.

2. Water usage from recycled water produced from within OCWD including the GWRS totaled 114,164 AF for the 2018-19 water year.

3. Water demands within OCWD totaled 393,222 AF for the 2018-19 water year.

4. Estimated demands for groundwater for the ensuing 2020-21 water year are 242,000 AF.

SUPPLEMENTAL WATER

Supplemental water is used by water agencies within OCWD's boundary to augment groundwater supplies in satisfying their user demands and by OCWD to recharge the groundwater basin. Supplemental water, as defined in Section 31.5 of the District Act, is any water that originates from outside the SAR watershed (comprised of an area of 2,081 square miles) with the exception of that portion of that watershed on and along Santiago Creek upstream of the downstream toe of the slope of the Villa Park Flood Control Dam which is counted as supplemental water. It is important to note that the Santiago Creek watershed lies entirely within the SAR watershed. Sources of supplemental water typically include imported deliveries from MWD and diversions from Irvine Lake/Santiago Reservoir (i.e., Santiago Creek) that are conveyed to users within OCWD boundaries. MWD deliveries originate from either the Colorado River or the SWP. In addition, supplemental water would also include deliveries from within the SAR watershed that involve water exchanges (i.e., releasing a quantity of water that originates from within the SAR watershed while importing an equal quantity of supplemental water to replace it).

Non-local waters are defined, for the purposes of this report, as waters purchased from agencies outside of OCWD's boundary for use within OCWD. Non-local waters include all water deliveries to OCWD where the water source is located within the SAR watershed. Water deliveries to OCWD from the Arlington Desalter in Riverside and the San Bernardino Valley Municipal Water District's High Groundwater Mitigation Project are considered non-local waters. Both projects involve pumping (and treatment in Arlington's case) and release of groundwater from the SAR upstream groundwater basins to OCWD via the SAR for groundwater replenishment at OCWD Forebay recharge facilities. For the purpose of being consistent with previous Engineer's Reports and to present information in a concise manner, non-local water deliveries that are purchased and used by OCWD for groundwater replenishment are included in the supplemental water totals in this report. However, while accounted for in the supplemental water totals in this Engineer's Report for convenience and consistency purposes, these non-local waters are not supplemental sources of water as defined in Section 31.5 of the District Act because the non-local waters originate within the SAR watershed. These non-local water deliveries are not included in the accounting of supplemental sources that address water demands within OCWD as shown in Table 5.

Recycled wastewater produced and used within OCWD is considered, for the purposes of this report, as neither non-local water nor supplemental water (sometimes referred to as neutral water). Therefore, recycled water that originates from within OCWD is reported separately from supplemental water totals. However, recycled water used in the Alamitos Barrier is supplied by Water Replenishment District of Southern California (WRD) and originated from outside the SAR watershed, and, as such, is categorized as supplemental water.

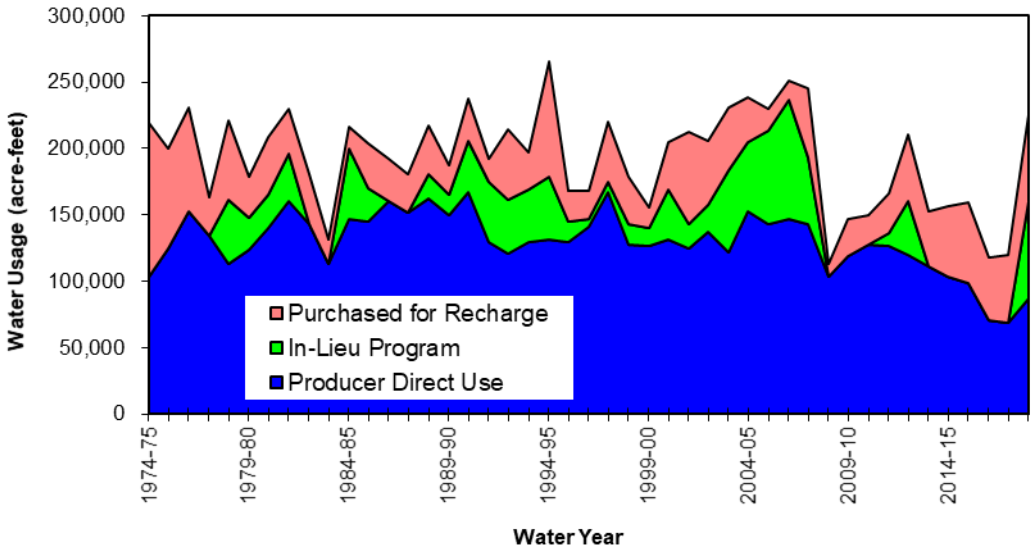
Water agencies utilizing supplemental water are listed in Appendix 1. As summarized in Table 3, the use of supplemental water in OCWD's service area during the 2018-19 water year totaled 113,251 AF of which 70,872 AF resulted from the direct use by water agencies and districts and 42,379 AF (including any available In-Lieu Program water) were used for groundwater replenishment purposes. The supplemental water used by water agencies included 70,872 AF for municipal and industrial use and zero AF for agricultural purposes. Historical supplemental water usage is illustrated in Figure 4. The GWRS delivered recycled water to OCWD Forebay recharge basins and the Talbert seawater intrusion barrier throughout the 2018-19 water year. A breakdown of non-local water purchases by OCWD from water years 1999-2000 through 2018-19 is presented in Appendix 4.

TABLE 3. 2018-19 Supplemental Water Usage

Direct Agency Use	**AF**
Imported Water[1]	68,906
Santiago Creek Native Water	1,966
Subtotal	**70,872**
Groundwater Replenishment (Purchased)	**AF**
In-Lieu Program[2]	0
Forebay Recharge[3]	40,344
Alamitos Barrier[4]	2,015
Talbert Barrier	20
Subtotal	**42,379**
TOTAL	**113,251**

[1]Includes extractions from MWD Groundwater Storage Program.
[2]Any amount reported herein includes water received by OCWD's groundwater producers as In-Lieu water.
[3]Full service rate untreated water.
[4]Total amount combines imported and recycled water deliveries.

FIGURE 4. Historical Supplemental Water Usage



Recycled water use within OCWD is presented in Table 4 (excluding WRD-supplied recycled water to the Alamitos Barrier because this water is categorized as supplemental water and already included in the total amount reported in Table 3). The major uses of recycled water are groundwater replenishment (including Kraemer, Miller, Miraloma and La Palma recharge basins and Talbert Barrier injection wells) and supply water for irrigation and industrial users.

TABLE 4. 2018-19 Recycled Water Usage

Groundwater Replenishment	Water Usage (AF)
GWRS AWPF (for Talbert Barrier)	27,424
GWRS AWPF (for Recharge Basins)[1]	66,060
GWRS AWPF (for Mid-Basin Injection)	1,826
Subtotal	**95,310**
Irrigation	**Water Usage (AF)**
IRWD[2]	15,447
OCWD (Green Acres Project)[3]	3,407
Subtotal	**18,854**
TOTAL	**114,164**

[1]Includes 90 AF of GWRS recycled water delivered to City of Anaheim Canyon Power Plant and Anaheim Regional Transportation Intermodal Center (ARTIC).
[2]Recycled water used within the portion of OCWD that lies within IRWD's boundaries (excludes OCWD/IRWD intertie water deliveries to the Green Acres Project).
[3]Excludes deliveries to the Orange County Sanitation District and includes IRWD/OCWD Intertie deliveries to the Green Acres Project.

AVAILABILITY OF SUPPLEMENTAL REPLENISHMENT WATER

MWD provided untreated full-service water supplies to groundwater-basin agencies during the water year 2018-19 as a result of its allocation of State Project Water and normal rainfall conditions. Supplemental water from MWD to recharge the groundwater basin is available in the current water year and is expected to be available in the ensuing water year 2020-21. OCWD is not planning to purchase untreated full-service water to recharge its groundwater basin in the ensuing water year 2020-21 due to the expected decrease in groundwater production caused by the PFAS issue.

WATER DEMANDS

During the 2018-19 water year, the total water demands within OCWD's service area were 393,222 AF. Water demands were relatively low due to the relatively wet conditions. Total demands include the use of groundwater, MWD In-Lieu Program water, supplemental sources (including imported water and Santiago Creek native water) and recycled water (which is not included within supplemental sources if originating within the SAR watershed). Total demands exclude any groundwater, supplemental water and recycled water (such as the GWRS recycled water) used by OCWD for groundwater recharge and water conservation credits given to groundwater producers for their conservation efforts.

Water demands for 2018-19 and projected water demands for 2019-20 and 2020-21 are summarized in Table 5. The water demands for the current year 2019-20 were determined by assessing the data that is presently available for the first half of the water year and projecting that data to develop the total annual water demands. The water demands for the ensuing year 2020-21 are based on the projections provided by the retail water agencies within OCWD's service area. Long-term projections are presented in Figure 5.

TABLE 5. Water Demands Within OCWD

	Ground-water[1]	Imported Water[2,3]	Santiago Creek Native Water[3]	Recycled Water[4]	Total[6]
2018-19					
Non-Irrigation	302,756	68,906	1,966	-	373,628
Irrigation	740	0	-	18,854	19,594
Total	**303,496**	**68,906**	**1,966**	**18,854**	**393,222**
2019-20 (Current Year)[5]					
Non-Irrigation	297,200	96,000	2,000	-	395,200
Irrigation	800	-	-	19,000	19,800
Total	**298,000**	**96,000**	**2,000**	**19,000**	**415,000**
2020-21 (Ensuing Year)[5]					
Non-Irrigation	241,200	152,000	2,000	-	395,200
Irrigation	800	-	-	20,000	20,800
Total	**242,000**	**152,000**	**2,000**	**20,000**	**416,000**

[1] *Includes In-Lieu Program water, if available. Also includes groundwater pumped under water quality improvement agreements entered into between OCWD and certain producers pursuant to Section 38.1 of the District Act where the produced groundwater is exempted from payment of all or a portion of the BEA. The BEA-exempt groundwater is deducted from the projection of total groundwater used to calculate the BPP.*

[2] *Excludes water conservation credits and imported water used for groundwater replenishment.*

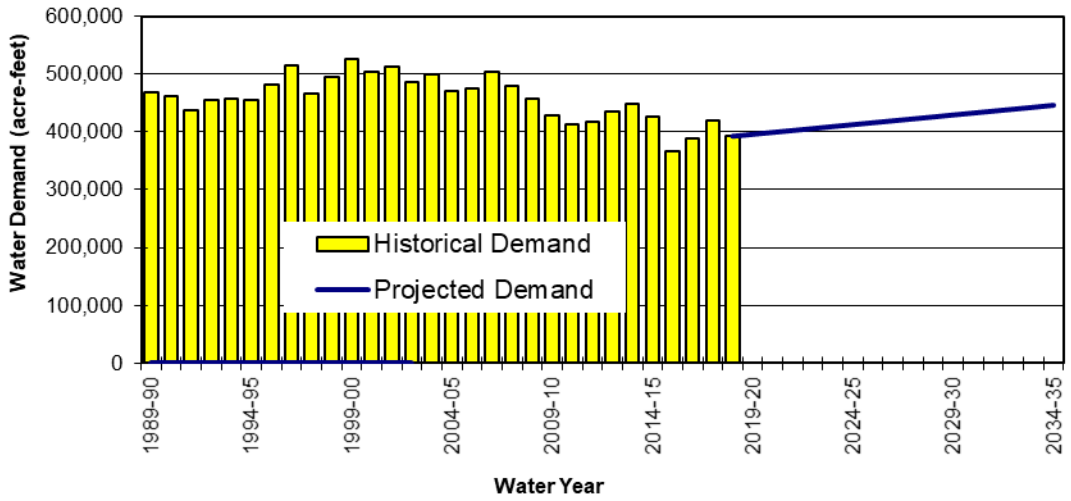
[3] *"Imported Water" and "Santiago Creek Native Water" are both counted as supplemental water.*

[4] *Excludes GWRS recycled water recharged into the groundwater basin. Includes recycled water from IRWD and OCWD's Green Acres Project (excluding OCSD's usage).*

[5] *Water demands are estimated by OCWD assuming average hydrology.*

[6] *Includes all groundwater and non-groundwater sources and is greater than the amount of supplemental sources used in the calculation of BPP. For purposes of this table, supplemental water is calculated as the sum of Imported Water and Santiago Creek Native Water and does not include Recycled Water.*

FIGURE 5. Water Demand Projections



WATER DEMAND FORECAST

OCWD participates with MWDOC and retail groundwater producers to predict future demands in OCWD's service area. Each groundwater producer projected its total water demands to the year 2035. These projections include the effect of local water conservation efforts. Figure 5 illustrates the historical and the projected water demands for OCWD's service area to the year 2035.

Population within OCWD's service area is expected to increase from the current 2.28 million people (based on Census 2010 demographic data) to approximately 2.59 million people by the year 2035. This population growth is expected to increase water demands from the current 393,222 AF per year to 447,000 AF per year in 2035 (a water demand projection that takes into consideration future water conservation savings). In an effort to support increasing water demands, OCWD will look to increase basin production by developing new local economical water supply projects.

ADVANCED WASTEWATER RECLAMATION

Groundwater, supplemental water and local surface water have historically been the primary water sources within OCWD. In recent decades, wastewater reclamation has increasingly become a significant source of additional water. Purified recycled water has been produced by OCWD for use as injection water in the Talbert Barrier and as percolation water in Kraemer, Miller, Miraloma and La Palma recharge basins. OCWD and IRWD also recycle wastewater at their respective treatment plants for irrigation and industrial uses.

The GWRS is an advanced wastewater reclamation project jointly-funded by OCWD and the Orange County Sanitation District (OCSD). The project was operational in January 2008. The advanced treatment processes utilized in the GWRS consist of microfiltration (MF) followed by reverse osmosis (RO) membranes and ultraviolet (UV) light disinfection in combination with hydrogen peroxide. For water year 2018-19, the GWRS treated wastewater from the OCSD to drinking water standards and delivered 95,310 AF of purified water for direct injection into the Talbert seawater intrusion barrier and percolation into the OCWD groundwater basin via recharge basins and MBI well.

For water year 2018-19, OCWD and IRWD recycled water deliveries for landscape irrigation and industrial uses in Fountain Valley, Costa Mesa, Huntington Beach, Newport Beach, Santa Ana and IRWD's service area within OCWD totaled 18,854 AF.

WRD operates the Alamitos Barrier Recycled Water Project, known as the Leo J. Vander Lans Water Treatment Facility that has a design capacity of 8 MGD; however, its historical production is typically 3 MGD. This project supplies highly treated recycled water to the Alamitos Barrier. The Leo J. Vander Lans advanced wastewater treatment facility located in Long Beach utilizes the treatment processes of MF, RO and UV light disinfection. This project is ultimately intended to replace most of the imported water used to supply the Alamitos Barrier with purified recycled water. The project operated for only a month during the water year 2018-19 and supplied 42 AF of purified recycled water to the Alamitos Barrier, which represented two percent of the barrier's supply that OCWD is responsible for payment. Recycled water deliveries from the Leo J. Vander Lans plant to the Orange County portion of the Alamitos Barrier are classified as supplemental water because this recycled water originates from outside the SAR watershed.

WATER QUALITY

OCWD maintains a comprehensive groundwater protection policy that includes water quality monitoring, removal of contaminants, regulatory agency support, toxic residuals removal and hazardous waste management. In addition, OCWD provides water quality information to regulatory agencies, other water agencies and the general public. In order to meet the current and future water quality testing requirements, OCWD operates the Advanced Water Quality Assurance Laboratory at the Fountain Valley campus. The laboratory houses approximately 31 chemists and laboratory technicians, 12 water quality monitoring personnel and all the analytical instruments that are needed to perform more than 400,000 analyses of approximately 20,000 water samples taken each water year. The laboratory supports the extensive water quality testing requirements for the GWRS.

When blended together by the major agencies within OCWD's service area, the blended groundwater (without treatment) and treated supplemental water for 2018-19 was determined to have a flow-weighted average of 452 milligrams per liter (mg/L) of total

dissolved solids (TDS) which is higher than the average TDS concentration of 438 mg/L reported for the prior year (2017-18). The average groundwater TDS concentration for the basin for 2018-19 was 447 mg/L (compared to 462 mg/L reported for 2017-18), ranging from a low of 249 mg/L in coastal areas (such as Newport Beach) to a high of approximately 669 mg/L in certain inland areas.

Average concentrations of TDS, nitrate (NO_3) and hardness for groundwater and groundwater combined with supplemental water supplied by agencies within OCWD's service area during the 2018-19 water year are summarized in Table 6. These concentrations were determined from groundwater and supplemental water analyses and from production reports submitted to and filed with OCWD by each water agency. The City of Tustin and IRWD have active groundwater treatment projects that help to reduce certain constituents reported in Table 6 in their groundwater supply prior to service to their customers (see note 6 for detailed explanation).

WATER RESOURCES DATA

A summary of water resources data within OCWD for the 2018-19 water year and the previous water year (2017-18) is included in Appendix 5.

TABLE 6. 2018-19 Water Quality Summary

City/Agency	Groundwater[1,7]			Delivered Blend[1,2,7]		
	TDS[3]	NO_3-N[4]	Hard-ness[5]	TDS[3]	NO_3-N[4]	Hard-ness[5]
Anaheim	585	2.6	325	562	2.1	302
Buena Park	414	1.5	254	428	1.2	241
East Orange County Water District	565	3.9	351	537	2.8	308
Fountain Valley	380	1.4	225	380	1.4	225
Fullerton	452	2.1	256	456	1.7	244
Garden Grove	568	4.1	335	552	3.5	315
Golden State Water Company	421	1.6	245	430	1.3	237
Huntington Beach	378	0.6	224	414	0.5	216
Irvine Ranch Water District[6]	344*	0.8*	136*	347*	0.8*	137*
La Palma	296	ND[8]	138	296	ND[8]	138
Mesa Water District	334	0.5	118	355	0.5	132
Newport Beach	249	1.2	114	300	1.0	135
Orange	458	2.2	270	460	1.8	257
Santa Ana	401	2.2	247	417	1.7	237
Seal Beach	261	ND[8]	97	318	ND[8]	126
Serrano Water District	609	1.7	341	605	1.5	340
Tustin[6]	521*	4.5*	271*	515*	4.0*	263*
Westminster	364	1.4	231	388	1.2	225
Yorba Linda Water District	669	1.6	331	634	1.4	309
Weighted Average[7]	**447**	**1.9**	**241**	**452**	**1.6**	**235**

[1] *All groundwater results (alone or blend) are for untreated groundwater (see note 6 below). Units are reported in mg/L.*

[2] *Delivered blend includes untreated groundwater and treated imported MWD water (i.e., blend of Colorado River water and State Project water as measured at the MWD Diemer Plant), except Serrano Water District, which blends with treated Santiago Reservoir water. Units are reported in mg/L. Annual average water qualities for MWD and Santiago Reservoir (Irvine Lake) for 2018-19 are as follows:*

MWD Water Quality			*Santiago Reservoir Water Quality*		
TDS	=	*469 mg/L*	*TDS*	=	*595 mg/L*
NO_3-N	=	*1.1 mg/L*	*NO_3-N*	=	*0.7 mg/L*
Hardness (as $CaCO_3$)	=	*205 mg/L*	*Hardness (as $CaCO_3$)*	=	*336 mg/L*

[3] *Secondary Drinking Water Standards for TDS are as follows:*

500 mg/L = recommended limit
1,000 mg/L = upper limit

[4] *Primary Drinking Water Standard for nitrate NO_3-N (i.e., nitrate expressed as nitrogen) is 10 mg/L.*

[5] *Hardness is reported as mg/L of $CaCO_3$. General classifications of hard and soft water are within the following concentration ranges:*

0-75 mg/L	=	*soft*	*150-300 mg/L*	=	*hard*
75-150 mg/L	=	*moderately hard*	*300 and up mg/L*	=	*very hard*

[6] *Agencies with active groundwater quality improvement projects that treat for one or more of the constituents listed in the table. The results shown herein for "groundwater" and "delivered blend" reflect results from untreated groundwater. Water quality constituents that are marked with an asterisk (*) are reduced prior to delivery to customers.*

[7] *All water quality results are flow-weighted averages based on groundwater and imported water delivered to each agency.*

[8] *ND = not detected. Nitrate (expressed as NO_3-N) analytical detection limit for OCWD Advanced Water Quality Assurance Laboratory is 0.1 mg/L.*

PART III: WATER PRODUCTION COSTS FOR ENSUING WATER YEAR (2020-21)

Section 31.5 of the District Act requires that costs of producing groundwater and obtaining supplemental water be evaluated annually. These costs vary for each groundwater producer and depend on many factors. Although these variations in cost are recognized, it is necessary for the purpose of this report to arrive at figures representing the average cost of producing groundwater and purchasing supplemental water.

ENSUING WATER YEAR (2020-21) WATER PRODUCTION COSTS SUMMARY OF FINDINGS

1. Cost for producing water from the groundwater basin within OCWD including a replenishment assessment for 2020-21 is estimated to be $789.00 per acre-foot.

2. Cost of treated, non-interruptible supplemental water for 2020-21 is estimated to be $1,185.00 per acre-foot.

GROUNDWATER PRODUCTION COSTS FOR NON-IRRIGATION USE

Cost for producing an acre-foot of groundwater in the ensuing 2020-21 water year has been estimated for a potable water well for a large groundwater producer (i.e., a city water department, water district) in OCWD's service area. Operations and maintenance (O&M) and energy costs were determined using the cost information provided by nineteen large groundwater producers from a survey conducted by OCWD in fall 2019. The capital cost component was derived using the current capital cost of a typical production well (including design and construction costs) financed with an annual interest rate of five percent and amortized over a 30-year repayment period. Appendix 6 contains several of the key design characteristics for a typical production well. The OCWD RA used in the determination of groundwater production cost is the proposed RA for 2020-21.

The estimated cost for groundwater production for a large groundwater producing entity such as a city water department or a water district is presented in Table 7. The total cost to produce an acre-foot of groundwater within OCWD in the ensuing 2020-21 water year is estimated to be $789 per acre-foot. Based on the responses to the aforementioned survey, the flow-weighted average (based upon the quantity of groundwater pumped) for energy cost equaled $68 per AF. Operation and Maintenance (O&M) costs ranged from $14 to $406 per acre-foot with a median cost of approximately $72 per acre-foot. Elements that influence these costs include load factors and variations in groundwater levels. Recently drilled wells are generally deeper than those drilled decades ago. From the aforementioned survey, the average load factor which indicates the percent-of-use of an extraction facility equaled 55 percent.

TABLE 7. Estimated 2020-21 Groundwater Production Costs

Cost Item	Non-Irrigation Use	
	Annual Cost ($)	Cost per AF ($/AF)
Energy	176,800	68[2]
RA	1,362,400	524[3]
Capital	325,000[1,4]	125[1,4]
O&M	187,200	72[2]
Total Cost to Producers	2,051,400	789

[1] *Based upon an annual average production of 2,600 AF per production well.*
[2] *Based on survey of major agencies within OCWD's service area, non-irrigation groundwater users.*
[3] *Proposed RA for 2020-21.*
[4] *Assuming $5,000,000 capital cost (including design and construction) with an interest rate of five percent amortized over a 30-year period and excluding cost of land purchase.*

COST OF SUPPLEMENTAL WATER

Supplemental water is supplied to OCWD's service area by MWD. MWD delivers both treated and untreated water as either an uninterruptible supply or an interruptible supply. As a result, there are several categories of water available from MWD. The categories most applicable for purposes of this report are 1) uninterruptible (i.e., firm) treated water, which is referred to as "full service water," and 2) uninterruptible untreated water. Treated water is purchased and used directly by various groundwater producers for municipal and industrial purposes, while untreated water is purchased and recharged into the basin by OCWD to support higher groundwater production. Table 8 shows the estimated cost for the MWD uninterruptible treated water (full service water) cost for the ensuing 2020-21 water year. Figure 6 illustrates the historical supplemental water costs along with the historical groundwater production costs. A comparison of estimated costs for groundwater versus supplemental water (non-irrigation use) during the ensuing water year 2020-21 is summarized in Table 9 and also in Figure 6. Values used in Figure 6 are presented in tabular form in Appendix 7.

TABLE 8. Estimated 2020-21 Supplemental Water Cost[1]

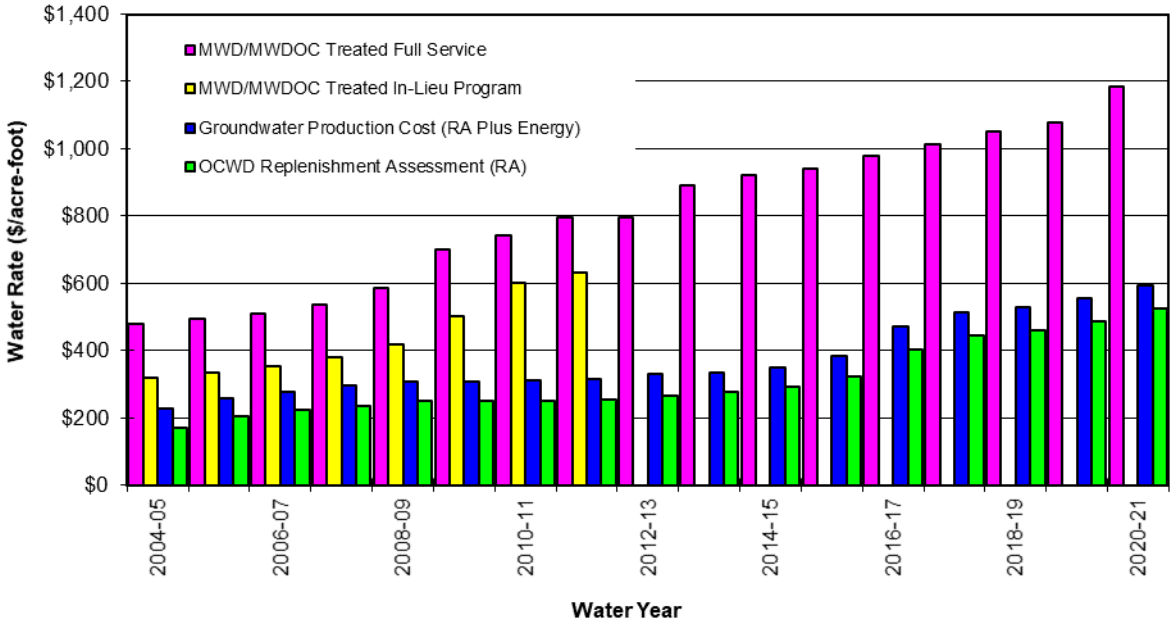
Rate and Charge Components	Treated Water Rate ($/AF)
Firm Deliveries	**Full Service Water**
MWD Supply Rate (MWDOC Melded Rate)	213.00
MWD System Access Rate	355.00
MWD System Power Rate	139.00
MWD Water Stewardship Rate	67.00
MWD Treatment Surcharge	331.00
MWD RTS and Capacity Charges[2]	80.00
Total	**1,185.00**

[1] *Rates are an average of calendar year 2020 and proposed calendar year 2021. Supplemental water costs for MWD's member agencies (i.e., Anaheim, Fullerton and Santa Ana) are not reported herein due to the variability among these agencies on water supply allocations between MWD's Tier 1 and Tier 2.*

[2] *Readiness-to-Serve (RTS) and Capacity Charges have been converted to an approximate cost per acre-foot, but are not normally reported in terms of unit cost.*

Cost components for supplemental treated and untreated water are listed in Table 8. Beyond the normally expected water supply, treatment and power charges, there are several other charges. The System Access charge is for costs associated with the conveyance and distribution system, including capital and O&M costs. The Water Stewardship charge is used to support MWD's financial commitment to conservation,

FIGURE 6. Adopted and Projected Water Rates for Non-Irrigation Use[1]



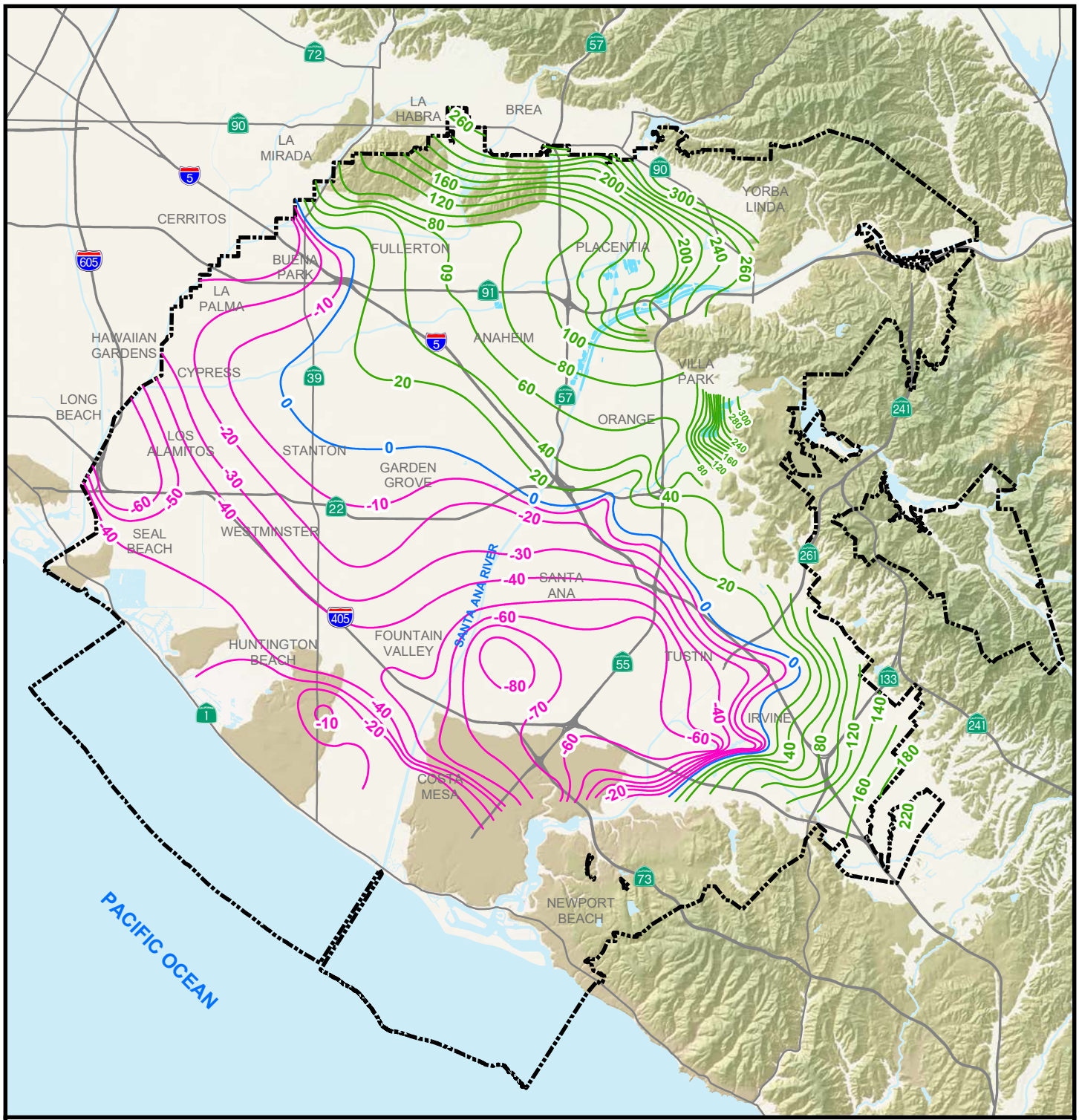
[1] *Refer to Appendix 7 for actual values used in Figure 6.*

TABLE 9. Estimated 2020-21 Water Production Cost Comparison

Non-Irrigation Use	Groundwater Cost ($/AF)	Supplemental Water Cost ($/AF)
Fixed Cost	125.00[1]	1,185.00[3]
Variable Cost	664.00[2]	-[3]
Total	**789.00**	**1,185.00**

[1] *Capital cost.*
[2] *Cost for energy, O&M and proposed RA.*
[3] *Delineation of fixed and variable costs is not available.*

water recycling, groundwater recovery and other water management programs approved by MWD. MWD uses the Capacity Charge to recover its cost for use of peaking capacity within its distribution system. The RTS charge is to recover MWD's cost associated with providing standby and peak conveyance capacity and system emergency storage capacity.



Estimated Groundwater Elevations Within The Principal Aquifer
Feet above Mean Sea Level* (ft MSL)

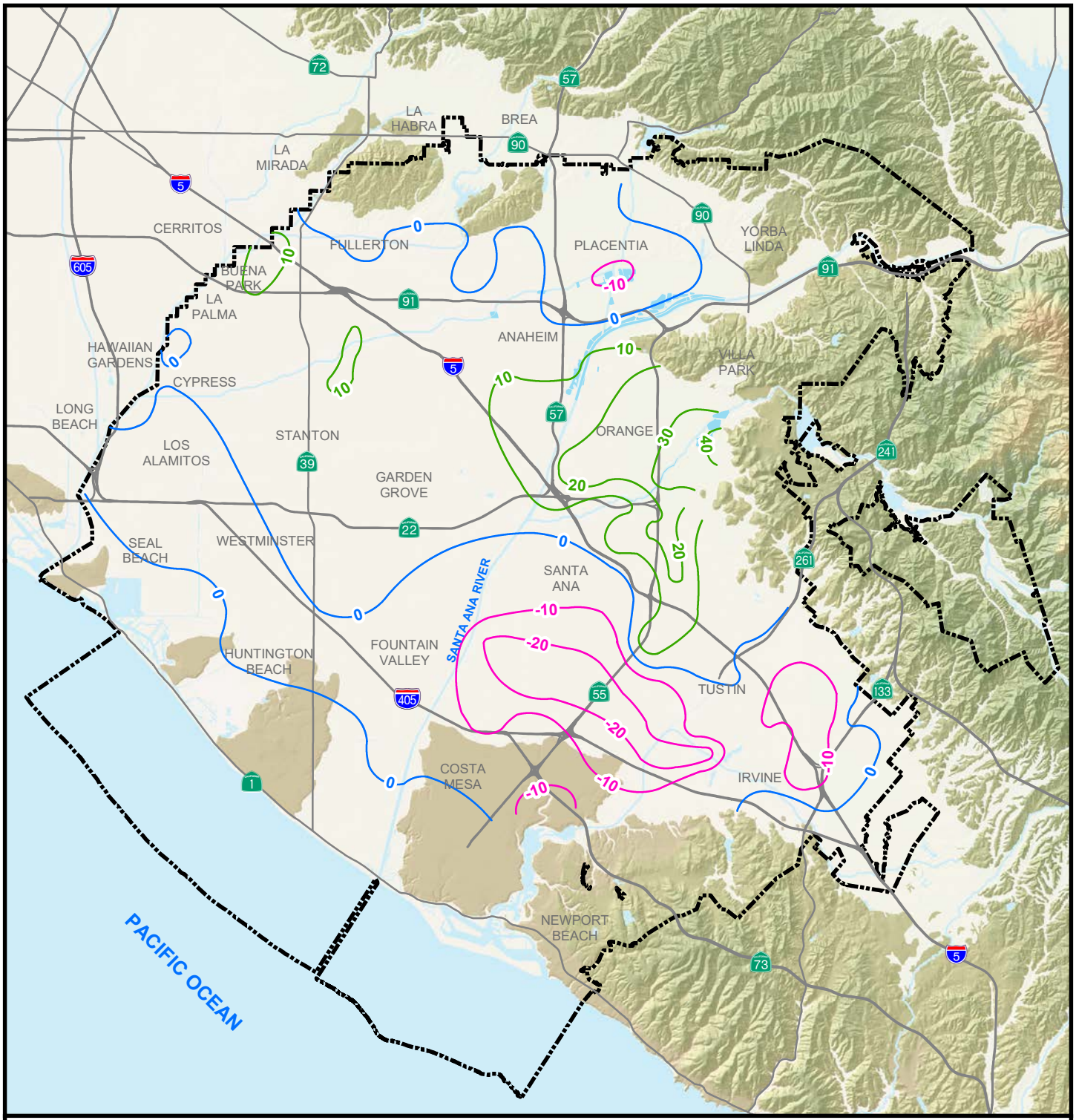
- -80 to -10
- 0
- 20 to 300
- Recharge Facility Areas
- Freeways / Highways
- Rivers / Streams
- Orange County Water District
- Water Bodies

PLATE 1
GROUNDWATER CONTOUR MAP
JUNE 2019

0 1 2 4 Miles

N W E S

*NOTE: MSL elevations are referenced to Vertical Datum NGVD 29



Estimated Groundwater Elevation Changes Within The Principal Aquifer (Feet)

- -20 to -10
- 0
- 10 to 40
- Recharge Facility Areas
- Freeways / Highways
- Rivers / Streams
- Orange County Water District
- Water Bodies

PLATE 2
CHANGE IN GROUNDWATER LEVEL FROM JUNE 2018 TO JUNE 2019

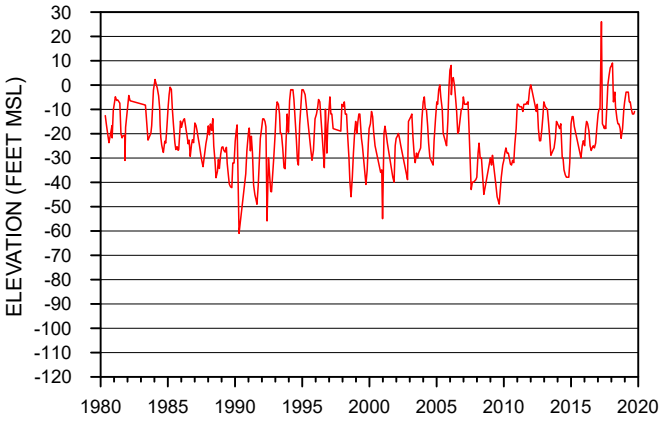
0 1 2 4 Miles

N W E S

PLATE 3
KEY WELL GROUNDWATER ELEVATION TRENDS IN THE PRINCIPAL AQUIFER

Measured water level elevations in feet relative to mean sea level

GG-16
04S/11W-33L01



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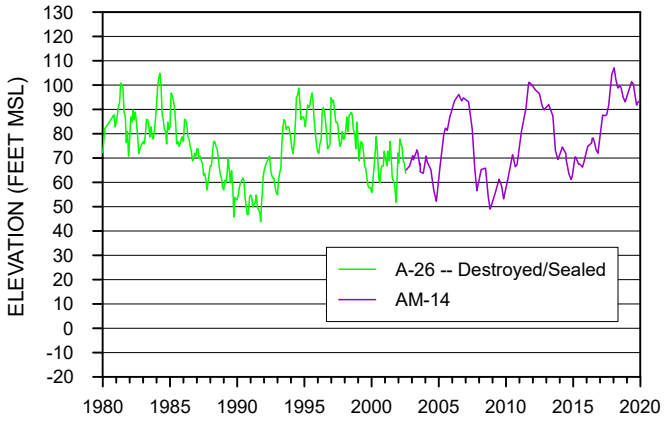

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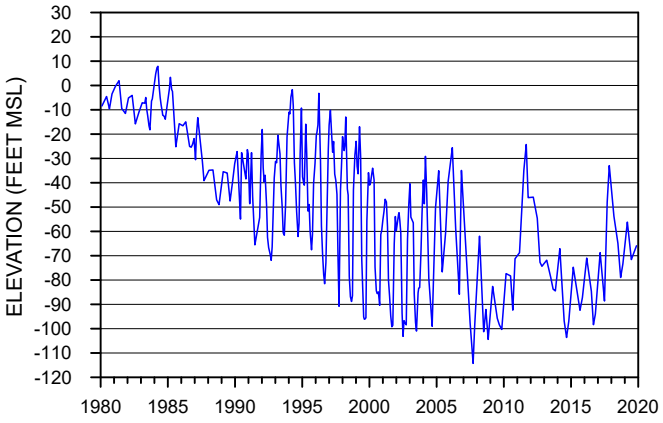

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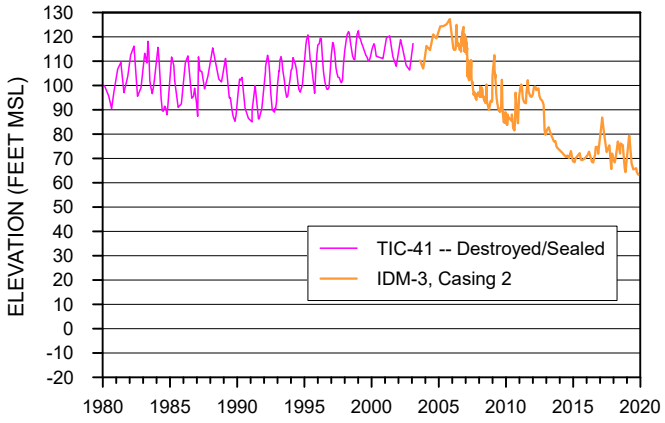
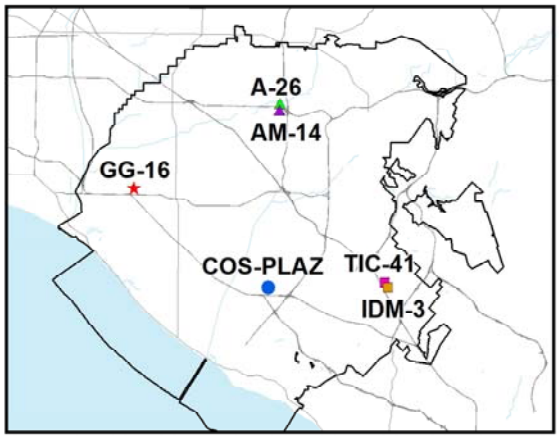




APPENDIX 1. 2018-19 Water Production Data

Groundwater Producer	Groundwater (AF)				Supplemental Water (AF)			Grand Total (AF)	Actual BPP Non-Irrigation [1] Only
	Non-Irrigation [1]		Irrigation Pumping	Total	Non-Irrigation Deliveries	Irrigation Deliveries	Total		
	Pumping	In-Lieu [2]							
Anaheim, City of [7]	45,277.1	-	-	45,277.1	11,021.6	-	11,021.6	56,298.7	80.4%
Buena Park, City of [7]	9,475.6	-	-	9,475.6	3,469.5	-	3,469.5	12,945.1	73.2%
East Orange County Water District	565.8	-	-	565.8	235.2	-	235.2	801.0	70.6%
County of Orange	123.1	-	-	123.1	123.9	-	123.9	247.0	49.8%
Fountain Valley, City of	8,194.9	-	-	8,194.9	0.7	-	0.7	8,195.6	100.0%
Fullerton, City of	18,377.1	-	-	18,377.1	5,519.3	-	5,519.3	23,896.4	76.9%
Garden Grove, City of [4, 7]	18,886.6	-	-	18,886.6	3,454.5	-	3,454.5	22,341.1	84.5%
Golden State Water Company [3, 7]	18,179.0	-	-	18,179.0	4,595.0	-	4,595.0	22,774.0	79.8%
Huntington Beach, City of	16,031.7	-	-	16,031.7	10,219.3	-	10,219.3	26,251.0	61.1%
Irvine Ranch Water District [4, 5]	47,172.2	-	-	47,172.2	1,063.0	-	1,063.0	48,235.2	97.8%
La Palma, City of	1,853.2	-	-	1,853.2	-	-	0.0	1,853.2	100.0%
Mesa Water District [4]	13,572.6	-	-	13,572.6	2,492.2	-	2,492.2	16,064.8	84.5%
Newport Beach, City of	10,877.4	-	-	10,877.4	3,229.2	-	3,229.2	14,106.6	77.1%
Orange, City of [5]	21,843.2	-	-	21,843.2	5,170.7	-	5,170.7	27,013.9	80.9%
Orange County Water District [6]	1,827.3	-	-	1,827.3	-	-	0.0	1,827.3	100.0%
Santa Ana, City of [7]	25,512.4	-	-	25,512.4	7,743.0	-	7,743.0	33,255.4	76.7%
Seal Beach, City of	2,403.4	-	-	2,403.4	893.1	-	893.1	3,296.5	72.9%
Serrano Water District [5]	1,929.1	-	-	1,929.1	629.9	-	629.9	2,559.0	75.4%
Tustin, City of [4]	8,982.0	-	-	8,982.0	1,234.9	-	1,234.9	10,216.9	87.9%
Westminster, City of [7]	8,219.6	-	-	8,219.6	2,454.1	-	2,454.1	10,673.7	77.0%
Yorba Linda Water District [7]	14,932.5	-	-	14,932.5	3,105.1	-	3,105.1	18,037.6	82.8%
Total Major Groundwater Producers	294,235.8	0.0	0.0	294,235.8	66,654.2	0.0	66,654.2	360,890.0	81.5%
Other Producers	6,901.7	-	740.1	7,641.8	4,218.6	-	4,218.6	11,860.4	
Exempt Well Production	1,618.9	-	-	1,618.9	0.0	-	0.0	1,618.9	
Total Amount	302,756.4	0.0	740.1	303,496.5	70,872.8	0.0	70,872.8	374,369.3	
Basin Production Percentage Overall									**80.9%**

[1] *Water classed as being used for purposes other than commercial agriculture.*

[2] *Imported MWD water purchased for domestic use to offset groundwater pumping.*

[3] *Excludes 608.8 AF of exempt well production. Annual production would be 18,787.8 AF including the exempted production of 608.8 AF.*

[4] *Agencies that participate in a groundwater water quality improvement project.*

[5] *Agencies that can receive Santiago Creek native water above Villa Park Dam that are conveyed to users within OCWD. Such water, if delivered, is included within the classification of "Supplemental Water"*

[6] *Groundwater quantity reported herein is that quantity used by OCWD for purposes other than seawater intrusion barrier maintenance.*

[7] *These agencies participated in the MWD Long-Term Groundwater Storage Program for which groundwater was extracted and accounted for as supplemental water.*

APPENDIX 2. 2018-19 Groundwater Production — Non-Irrigation Use Production Over 25 Acre-feet

PRODUCER	AF	PRODUCER	AF
Alta Vista Country Club	316.8	Mesa Water District	13,572.6
Anaheim Cemetery	36.6	Midway City Mutual Water Company	214.4
Anaheim, City of	45,277.1	Mile Square Golf Course	63.0
Billy Casper Golf	251.7	Navy Golf Course	486.1
Buena Park, City of	9,475.6	Newport Beach Golf Course	90.8
Canyon RV Park	120.0	Newport Beach, City of	10,877.4
Coca Cola North America	238.0	Old Ranch Country Club	375.0
County of Orange	123.1	Orange County Water District	1,827.3
DS Services of America, Inc.	396.5	Orange, City of	21,843.2
East Orange County Water District	565.8	Page Avenue Mutual Water Company	38.2
Eastlake Village HOA	71.2	Riverview Golf	182.1
Eastside Water Association	118.6	Santa Ana Cemetery	67.9
Fairhaven Memorial Park	142.3	Santa Ana Country Club	287.0
Fountain Valley, City of	8,194.9	Santa Ana, City of	25,512.4
Fullerton, City of	18,377.1	Seal Beach, City of	2,403.4
Garden Grove, City of	18,886.6	Serrano Water District	1,929.1
Golden State Water Company[1]	18,179.0	South Coast Shores HOA c/o Optimum PM	48.1
Hargis and Associates, Inc.	55.5	South Midway City Mutual Water Company	87.2
Huntington Beach, City of	16,031.7	The Boeing Company	267.5
Hynes Estates, Inc.	54.0	The Good Shepherd Cemetery	64.8
Irvine Ranch Water District	47,172.2	The Lakes Master Association	72.2
Knott's Berry Farm	207.7	Tustin, City of	8,982.0
La Palma, City of	1,853.2	Westminster, City of	8,219.6
Laguna Beach County Water District	1,933.8	Westminster Memorial Park	313.4
Lockheed Martin Corporation	31.4	Yorba Linda Country Club	321.4
Los Alamitos Race Course	354.6	Yorba Linda Water District	14,932.5
Melrose Abbey Funeral Center	45.8		
Mesa Verde Country Club	342.5	**Total**	**301,931.9**

[1] Excludes 608.8 AF of exempt well production. Annual production would be 18,787.8 AF including the exempted production of 608.8 AF.

APPENDIX 3. 2018-19 Groundwater Production — Irrigation Use Production Over 25 Acre-feet

PRODUCER	AF
F.S. Nursery c/o Southern CA Edison	41.9
Neff Ranch, LTD	80.3
Orange County Produce	531.1
Treesap Farms, LLC	37.9
Total	**691.2**

APPENDIX 4. Non - Local Water Purchased by OCWD for Water Years 1999-2000 through 2018-19

	Water Exchange		Talbert Barrier		Forebay Recharge		In-Lieu Program		Basin	SAR Upstream GW Projects		TOTAL
	Western	Alamitos	FV[1]	MCWD	Forebay	CUP[2]	CUP[2]		WSM	Arlington	SBVMWD	
	Mun. WD	Barrier	OC32A	OC44B	Recharge	Recharge	In-Lieu	In-Lieu	Program[3]	Desalter		
Water	Purch.	Purch.	Purch.	Purch.	Purchase	Delivery	Delivery	Purch.	Purch.	Purch.	Purch.	Delivery and Purchase
Year	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF
1999-00	-	1,873.6	-	-	28,478.1	-	-	24,726.0	13,280.8	4,994.6	-	73,353.1
2000-01	-	1,672.5	941.7	-	59,138.4	-	-	11,191.0	7,449.0	5,177.9	2,787.6	88,358.1
2001-02	2,990.3	2,282.2	2,673.0	-	30,092.6	-	-	19,472.4	-	5,819.8	4,296.4	67,626.7
2002-03	3,471.4	1,448.7	1,540.1	-	35,755.1	-	-	25,631.0	35,832.0	4,924.7	-	108,603.0
2003-04	3,605.0	1,938.3	1,703.3	3,380.6	14,832.0	2,462.7	2,479.6	49,688.8	-	4,087.3	-	84,177.6
2004-05	-	1,914.9	2,451.8	8,368.6	3,810.8	-	15,021.1	54,596.1	-	567.5	-	86,730.8
2005-06	-	833.0[4]	1,079.9	5,431.1	7,256.7	-	15,452.9	73,763.1[5]	-	-	-	103,816.7
2006-07	1,745.0	534.1[4]	143.9	7,394.7	42,173.0	-	14,427.3	36,313.0	-	227.6	-	102,958.6
2007-08	2,882.4	1,505.7[4]	-	4,581.4	-	-	-	-	-	1,266.6	-	10,236.1
2008-09	3,663.5	2,094.2[4]	-	4,140.3	18,100.0	-	-	-	-	428.2	-	28,426.2
2009-10	-	1,321.9[4]	-	176.9	20,535.7	-	-	-	-	106.2	-	22,140.7
2010-11	-	1,689.1[4]	-	100.5	11,038.6	16,500.0	-	10,435.4	-	-	-	39,763.6
2011-12	-	1,198.7[4]	-	1.9	41,230.8	7,709.6	9,719.9	30,843.6	-	-	-	90,704.5
2012-13	-	1,721.8[4]	-	3.7	24,356.1	15,570.8	-	-	-	-	-	41,652.4
2013-14	-	2,370.2[4]	-	6.2	50,700.5	-	-	-	-	-	-	53,076.9
2014-15	-	2,236.3[4]	-	17.7	48,616.8	-	-	-	-	-	-	60,870.8[6]
2015-16	-	2,398.9[4]	-	7.0	45,118.0	-	-	-	-	-	-	47,523.9
2016-17	-	1,166.1[4]	-	7.8	48,918.1	-	-	-	-	-	-	50,092.0
2017-18	-	912.2[4]	-	18.4	66,113.5	-	-	73,108.6	-	-	-	140,152.7
2018-19	-	2,015.2[4]	-	20.1	40,344.9	-	-	-	-	-	-	42,380.2
Total	18,357.6	33,085.0	10,533.7	33,656.9	636,609.7	42,243.1	57,100.8	409,769.0	56,561.8	27,600.4	7,084.0	1,342,644.6[6]

[1] Includes only imported water and excludes groundwater deliveries from Fountain Valley to OCWD.

[2] CUP is the multi-agency conjunctive use program (known as the MWD Long-Term Groundwater Storage Program or MWD CUP). Basin losses are excluded.

[3] Known as Basin Water Supply Management Program (WSM) water. WSM program was terminated on December 31, 2003.

[4] Includes both MWD imported deliveries and supplemental recycled water deliveries.

[5] Includes 16,000 AF of 2005-06 MWD Supplemental Storage Program (i.e., "Super In-Lieu") water that was received as In-Lieu by the groundwater producers.

[6] Includes purchase of 10,000 AF of stored water from MWD CUP storage account at full-service untreated water rate in water year 2014-15.

APPENDIX 5. 2018-19 Water Resources Summary

	2018-2019 Water Year (AF)	2017-2018 Water Year (AF)	Change from last year to this year
SUMMARY OF BASIN CONDITIONS			
BASIN SUPPLIES			
Water Purchases from MWD (excludes In-Lieu)	40,345	66,113	(25,768)
Water into MWD Storage Account (excludes In-Lieu)	0	0	0
SAR & Santiago Creek Flows[1]	240,814	93,633	147,181
GWRS AWPF Water to Forebay Recharge Basins	65,970	83,225	(17,255)
GWRS AWPF Water to Mid-Basin Injection	1,826	1,549	277
GWRS AWPF Water to Talbert Barrier	27,424	20,746	6,678
Imported Water to Talbert Barrier (OC-44 & Fountain Valley)	21	19	2
Alamitos Barrier	2,015	912	1,103
Incidental Recharge	45,236	25,687	19,549
Evaporation from Recharge Facilities	(3,362)	(3,363)	1
SAR Flow Lost to Ocean	(75,794)	(605)	(75,189)
Total Groundwater Recharge	**344,496**	**287,916**	**56,580**
WATER PRODUCTION			
Groundwater Production	303,496	236,916	66,580
MWD Storage Program Extractions	0	0	0
Total Groundwater Production	**303,496**	**236,916**	**66,580**
BASIN STATUS			
Change in Groundwater Storage	41,000	51,000	(10,000)
Change in Groundwater Storage excluding MWD Stored Water	41,000	51,000	(10,000)
Accumulated Overdraft (AOD)	(236,000)	(277,000)	41,000
AOD without MWD Storage Program Water	(236,000)	(277,000)	41,000
IN-LIEU WATER			
OCWD In-Lieu Purchases	0	73,108	(73,108)
MWD In-Lieu Storage	0	0	(0)
Total In-Lieu	0	73,108	(73,108)
OTHER KEY INFORMATION			
1. Total Dissolved Solids of SAR below Prado Dam (mg/L)	634	670	(36)
2. Total Nitrogen of SAR below Prado Dam (mg/L)	5.0	3.7	1.3
3. Total GWRS AWPF Production[2]	95,310	105,621	(10,311)
4. Green Acres Project	3,407	3,783	(376)
5. Base Flow of Santa Ana River	72,200	67,310[3]	4,890
6. Year-end Storage behind Prado Dam	1	2	(1)
7. Year-end Storage in Recharge Facilities	16,783	12,579	4204
8. Total Artificial Recharge (percolation plus barriers)	299,260	262,230	37,030
9. Rainfall Measured at OCWD Field Headquarters (inches)	22.04	3.86	18.2
10. Annual Mean Temperature at Santa Ana Fire Station (°F)	67.0	70.1[3]	(3.1)

[1] *Accounts for storage to/from recharge facilities.*
[2] *Total includes deliveries to recharge basins, Talbert Barrier, MBI, Anaheim Canyon Power Plant and ARTIC.*
[3] *These values have been revised after the publication of the Engineer's Report.*

APPENDIX 6. Typical Groundwater Extraction Facility Characteristics

PARAMETER	CHARACTERISTICS
Water System Pressure	62 psi
Load (Use) Factor	63%
Design Flow Rate	2,563 gpm
Annual Production	2,600 AF
Bowl Efficiency (minimum)	84%
Motor Horsepower	325 hp
Type Motor	Electric
Well Casing Diameters	16 – 20 inches
Type of Pump	Vertical Turbine
Depth of Well	1,052 feet
Depth of Bowls	278 feet
Total Dynamic Head	325 feet
Estimated Life	30 years
Annual Cost of Facilities[1]	$325,000

[1] Assuming $5,000,000 capital cost (including design and construction) with an interest rate of five percent amortized over a 30-year period and excluding the cost for land purchase.

APPENDIX 7. Values Used in Figure 6
For Water Rates for Non-Irrigation Use

Water Year	RA ($/AF)	Estimated Groundwater Production Cost[1,2] ($/AF)	MWD Treated Interruptible Rate (In-Lieu Program)[2,3] ($/AF)	MWD Treated Uninterruptible Rate (Full Service)[2,3] ($/AF)
1985-86	32	85	181	225
1986-87	32	91	187	231
1987-88	32	91	187	231
1988-89	42	105	187	231
1989-90	45	119	136	231
1990-91	48	91	137	232
1991-92	51	100	156	263
1992-93	60	116	206	325
1993-94	67.5	124	257	389
1994-95	88	145	279	416
1995-96	85	140	294	440
1996-97	88	140	303	448
1997-98	91	141	303	455
1998-99	94	143	303	458
1999-00	100	150	303	459
2000-01	107	150	303	459
2001-02	117	162	303	459
2002-03	127	176	299	455
2003-04	149	203	301	460
2004-05	172	229	318	479
2005-06	205	258	337	494
2006-07	223	278	354	510
2007-08	237	296	382	538
2008-09	249	307	420	586
2009-10	249	308	501[4]	701
2010-11	249	310	602[4]	744
2011-12	254	315	633[4]	794
2012-13	266	330	-[5]	794
2013-14	276	334	-[5]	890
2014-15	294	349	-[5]	923
2015-16	322	386	-[5]	942
2016-17	402	473	-[5]	979
2017-18	445	513	-[5]	1,015
2018-19	462	529	-[5]	1,050
2019-20	487	557	-[5]	1,078
2020-21	524	592	-[5]	1,185[4]

[1] *Includes RA plus energy cost to produce groundwater.*
[2] *Rate is rounded.*
[3] *Rate is proposed.*
[4] *Rate is estimated.*
[5] *This rate is no longer available because MWD terminated the Replenishment Program.*

2

AGENDA ITEM SUBMITTAL

Meeting Date: March 18, 2020

To: Board of Directors

From: Mike Markus

Staff Contact: J. Kennedy

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: N/A
Funding Source: N/A
Program/ Line Item No.: N/A
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

SUBJECT: PUBLIC HEARING REGARDING POTENTIAL ADJUSTMENT TO BOARD MEMBER DIVISIONS FIVE, SIX AND SEVEN

SUMMARY

Board divisions five and seven have populations significantly higher than the average for all of the divisions. A potential solution to move residents into division six is provided in the report.

Attachment(s): Map of Board divisions

RECOMMENDATION

Per Elections Code §22001, schedule a second public hearing for April 1, 2020 to consider potential adjustments to the boundaries of Board divisions five, six and seven.

DISCUSSION/BACKGROUND

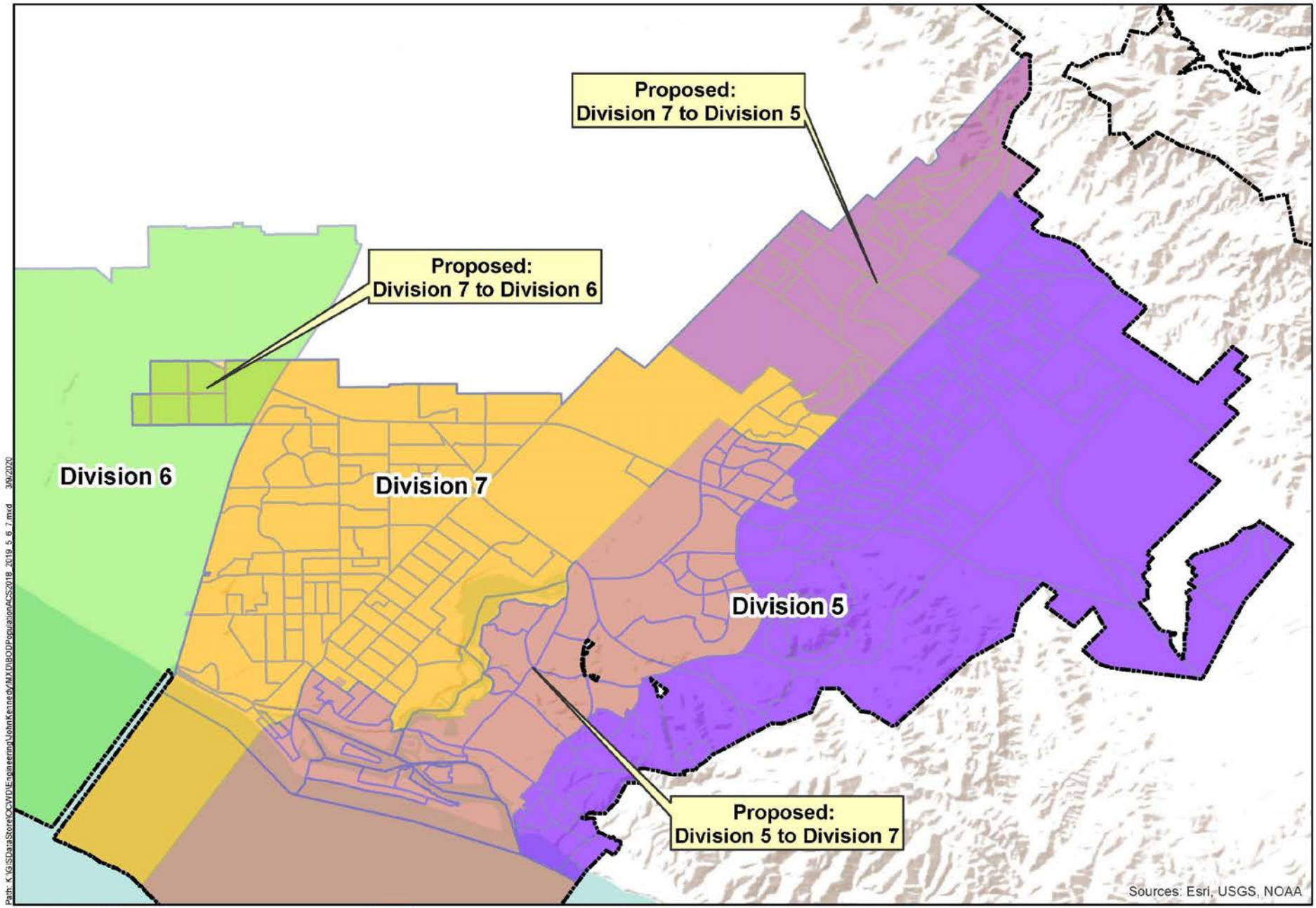
Section 1.2 of The District Act provides that OCWD shall follow the California Elections Code 22000 et seq. for any division boundary changes involving elected directors to the OCWD Board. The Code allows for changes to division boundaries up to 180 days prior to an election. The District is divided into ten Board divisions. Divisions one through seven have elected Board members while divisions eight, nine and ten have appointed Board members. A map of the ten divisions is provided.

It is the District's responsibility to ensure that the population totals within divisions one through seven are, in the wording of the applicable legislation, "as far as practicable, equal in population". Recently compiled data by staff indicate that Board divisions five and seven have a high number of residents, an amount that is much higher than the average for divisions one through seven, as shown on the following table. Adjustments can be made in phases to remedy this situation. One potential solution is to move residents from divisions 5 and 7 into division 6. The possible changes to the boundaries of divisions 5, 6 and 7 are shown on the attached map. Staff recommends setting a public hearing to review potential changes to the Board division boundaries.

Division	Director	2018 Estimated Total Population	New Estimated Population with changes shown
1	Nguyen	219,296	
2	Bilodeau	226,692	
3	Yoh	238,889	
4	Ta	220,780	
5	Sheldon	242,693	236,850
6	Green	219,646	230,006
7	Rowe	243,178	240,380
	Average	230,168	
Division	Director	2018 Estimated Total Population	
8	Sarmiento	336,323	
9	Brandman	310,122	
10	Zahra	133,706	

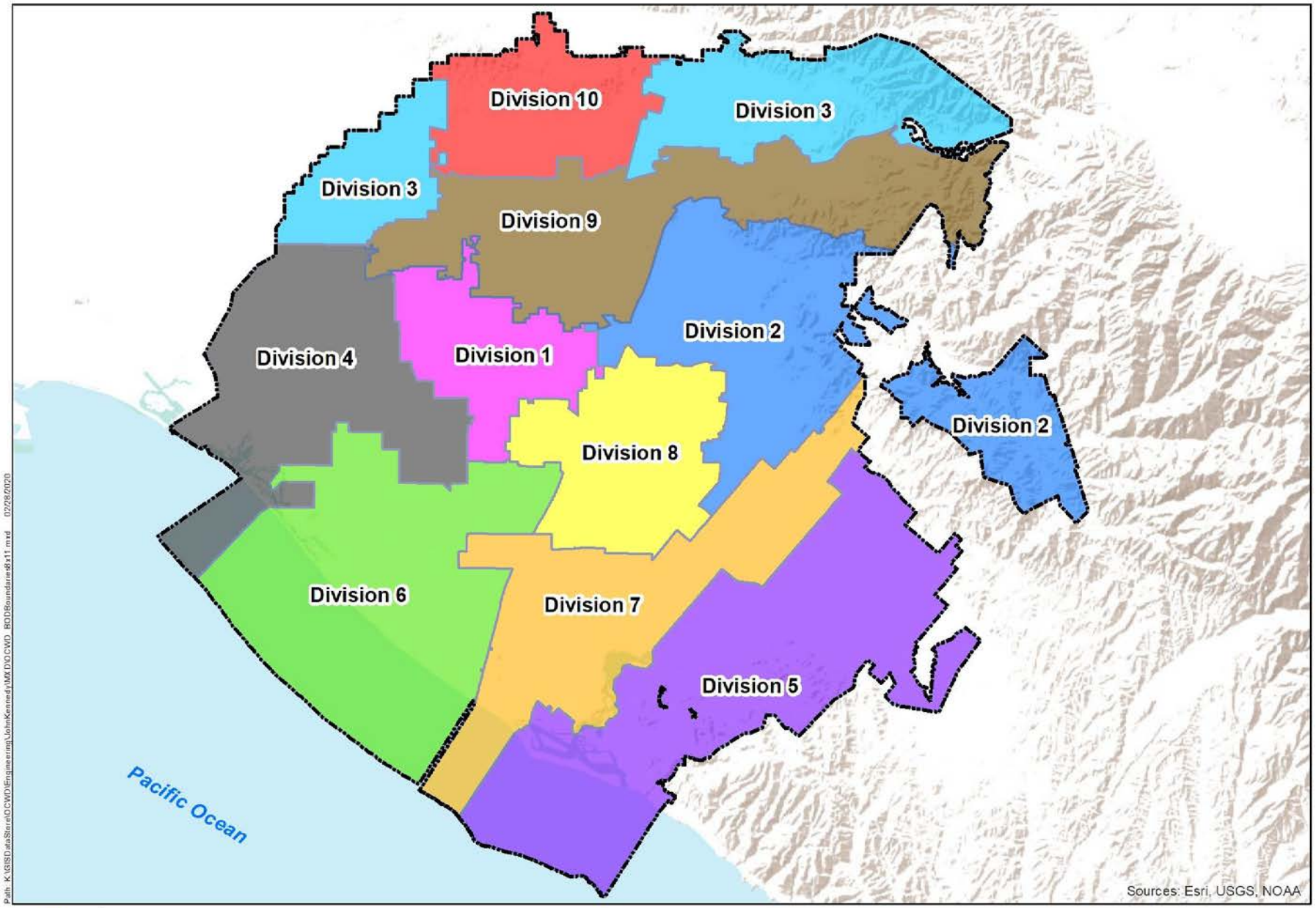
Election Code Section 22000(h) provides for the District to make “non-census” board division changes as necessary where the Board determines there have been sufficient population changes to make amendment of existing boundaries desirable. Any change to Divisions 5-7 would require a two-thirds vote (seven board members). Other adjustments to Divisions 1-4 may be recommended by staff at a later date.

PRIOR RELEVANT BOARD ACTION(S) N/A

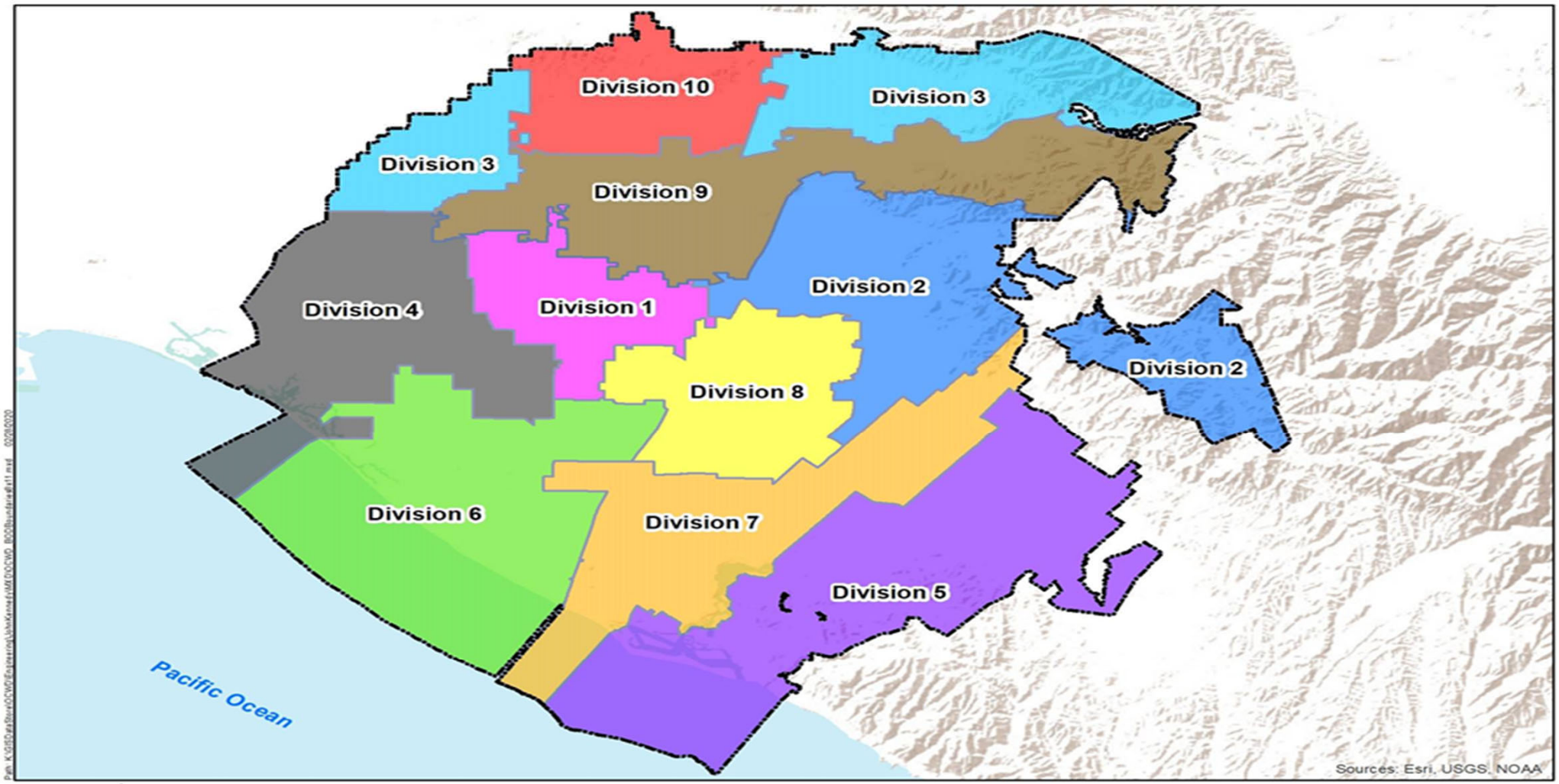


Proposed Changes to OCWD Board of Director Boundaries

Divisions 5, 6 and 7



OCWD Board of Director Boundaries



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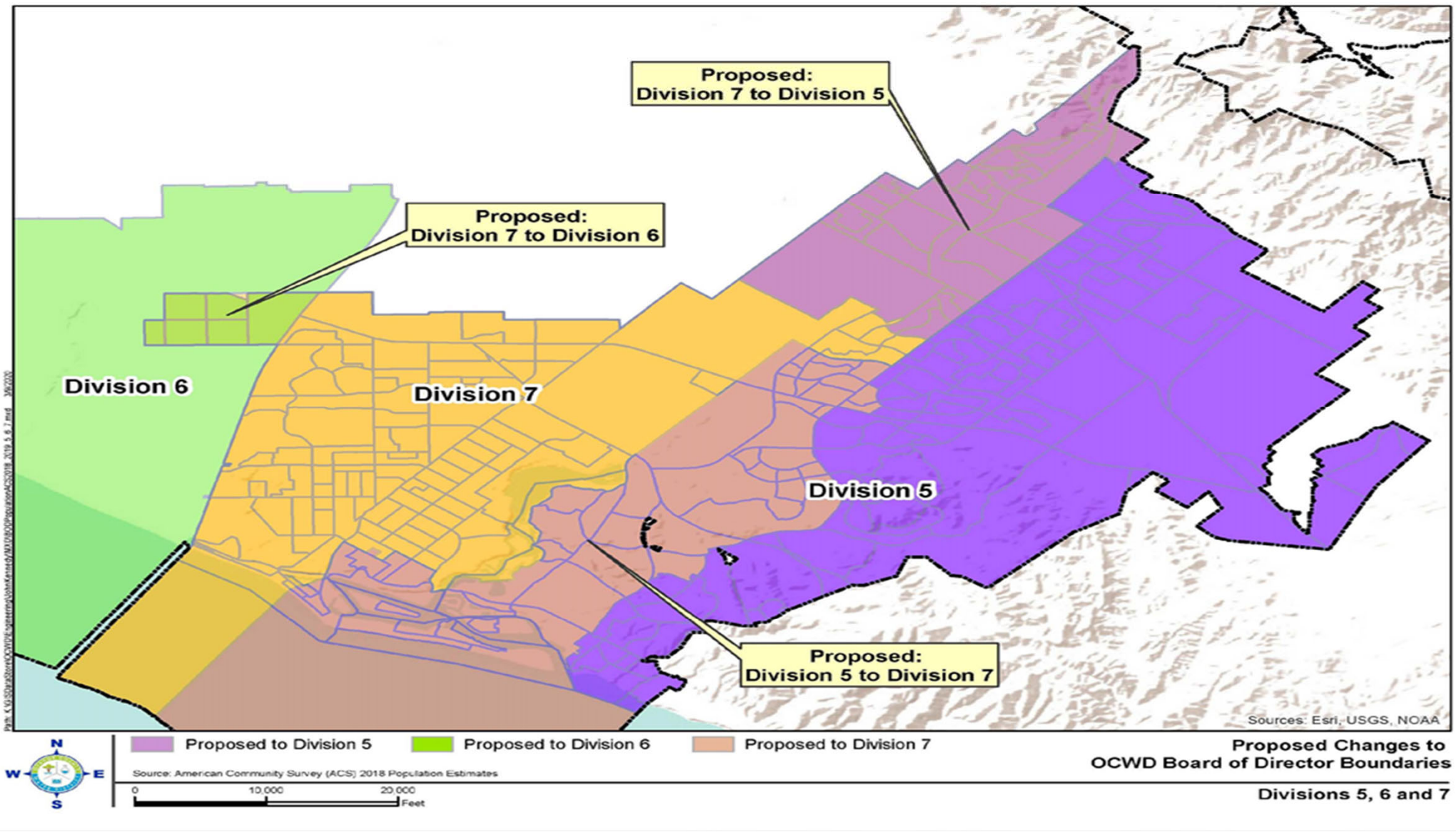
OCWD Service Boundary

0 10,000 20,000
Feet

OCWD Board of Director Boundaries


Proposed:
Division 7 to Division 5
Proposed:
Division 7 to Division 6
Division 6
Division 7
Division 5
Proposed:
Division 5 to Division 7
Sources: Esri, USGS, NOAA
N
W
E
S
Proposed to Division 5
Proposed to Division 6
Proposed to Division 7
Source: American Community Survey (ACS) 2018 Population Estimates
0
10,000
20,000
Feet
Proposed Changes to
OCWD Board of Director Boundaries
Divisions 5, 6 and 7

AGENDA ITEM SUBMITTAL

Meeting Date: March 18, 2020

To: Board of Directors

From: Mike Markus

Staff Contact: M. Ochoa

Budgeted: N/A
Budgeted Amount:
Cost Estimate $4,750,550.54
Funding Source: N/A
Program/Line Item No. N/A
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: APPROVAL OF CASH DISBURSEMENTS

SUMMARY

For the period of February 27, 2020 through March 11, 2020 including manual checks and wire transfers, staff is presenting cash disbursements totaling $4,750,550.54 disbursed for each period as follows:

Accounts Payable:		
02/27/2020 to 03/04/2020	$	1,488,456.84
03/05/2020 to 03/11/2020	$	2,156,449.63
Payroll	$	1,105,644.07
Total Disbursements	$	4,750,550.54

RECOMMENDATION

Ratify/Authorize payment of bills

PRIOR RELEVANT BOARD ACTION(S)

Semi-monthly

Orange County Water District

Check Register

Begin Date: 02/27/2020 **End Date:** 03/04/2020

Accounts Payable Check Register Presented for Board Ratification and/or Approval

Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96122	02/26/2020	CALIFORNIA GROUNDWATER COALITION	Inv# 2020 CATEGORY 3 MEMBERSHI Mem Dues	2020 Category 3	($95,000.00)		
	Total for Check:	96122				($95,000.00)	$9,500.00
96242	03/04/2020	AB SCIEX LLC	Inv# 210137456	LABORATORY SUPPLIES	$213.15		
96242	03/04/2020	AB SCIEX LLC	Inv# 210137456	shipping&handling	$16.94		
	Total for Check:	96242				$230.09	$36,372.61
96243	03/04/2020	ACCO ENGINEERED SYSTEMS	Inv# 1821500	AC Unit at 510 NEMA Trailer Re	$472.00		
96243	03/04/2020	ACCO ENGINEERED SYSTEMS	Inv# 1821500	AC Unit at 510 NEMA Trailer Re	$80.29		
96243	03/04/2020	ACCO ENGINEERED SYSTEMS	Inv# 1821500	AC Unit at 510 NEMA Trailer Re	$5.44		
	Total for Check:	96243				$557.73	$100,732.40
96244	03/04/2020	ACCUSTANDARD, INC.	Inv# 913881	LABORATORY SUPPLIES	$375.00		
96244	03/04/2020	ACCUSTANDARD, INC.	Inv# 913881	shipping	$15.34		
96244	03/04/2020	ACCUSTANDARD, INC.	Inv# 913881	handling	$7.00		
	Total for Check:	96244				$397.34	$14,470.25
96245	03/04/2020	ACE LAWN MOWER & SAW	Inv# 225394	WEED EATER	$347.98		
	Total for Check:	96245				$347.98	$1,254.84
96246	03/04/2020	AECOM TECHNICAL SERVICES, INC.	Inv# 2000320749A (T1-5-6) RI&FS	12/28-1/24 T1-5-6 N.B.	$26,615.36		
96246	03/04/2020	AECOM TECHNICAL SERVICES, INC.	Inv# 2000320749B (T3)	12/28-1/24 T3 N.Basin RI&FS	$2,115.89		
96246	03/04/2020	AECOM TECHNICAL SERVICES, INC.	Inv# 2000320761	12/28-1/24 Prado Range Plannin	$4,657.50		
	Total for Check:	96246				$33,388.75	$292,422.49
96247	03/04/2020	AGILENT TECHNOLOGIES, INC.	Inv# 118579140	LABORATORY SUPPLIES	$97.23		
96247	03/04/2020	AGILENT TECHNOLOGIES, INC.	Inv# 118579140	shipping&handling	$0.03		
96247	03/04/2020	AGILENT TECHNOLOGIES, INC.	Inv# 118579708	LABORATORY SUPPLIES	$484.37		
96247	03/04/2020	AGILENT TECHNOLOGIES, INC.	Inv# 118579708	shipping&handling	$9.49		
	Total for Check:	96247				$591.12	$168,970.29
96248	03/04/2020	ALTERNATIVE HOSE, INC.	Inv# 5951743	BPO HOSES	$97.17		
96248	03/04/2020	ALTERNATIVE HOSE, INC.	Inv# 5952069	BPO HOSES	$31.48		
	Total for Check:	96248				$128.65	$3,792.24
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1LV1-JPVY-1CGK	PVC TUBING	$142.45		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1LV1-JPVY-1CGK	shipping&handling	$16.42		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1VW4-JPV7-LGM6	MOULTRIE GAME CAMERA	$616.80		

Orange County Water District

Check Register

Begin Date: 02/27/2020 **End Date:** 03/04/2020

Accounts Payable Check Register Presented for Board Ratification and/or Approval

Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1Y7T-L3N7-RDQ1	game camera	$469.80		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YGF-4JVP-17MM	credit- not delivered	($469.80)		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YYL-JC64-KLHN	OPERATING SUPPLIES	$228.34		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YYL-JC64-KLHN	OPERATING SUPPLIES	$195.74		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YYL-JC64-KLHN	OPERATING SUPPLIES	$94.09		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YYL-JC64-KLHN	OPERATING SUPPLIES	$82.81		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YYL-JC64-KLHN	OPERATING SUPPLIES	$58.70		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YYL-JC64-KLHN	OPERATING SUPPLIES	$48.84		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YYL-JC64-KLHN	shipping&handling	$46.66		
96250	03/04/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1YYL-JC64-KLHN	OPERATING SUPPLIES	$16.31		
	Total for Check:	96250				$1,547.16	$2,664.37
96251	03/04/2020	AMERICAN WATER CHEMICAL, INC	Inv# 05-200090/1	2/5 40460 lbs anti-scalant	$35,159.74		
	Total for Check:	96251				$35,159.74	$686,910.17
96252	03/04/2020	AMERICAN WATER WORKS ASSOC.	Inv# 20364 M.HILL	CERTIFICATE RENEWAL	$55.00		
96252	03/04/2020	AMERICAN WATER WORKS ASSOC.	Inv# 7001762940	member# 00413485	$286.00		
	Total for Check:	96252				$341.00	$3,034.75
96253	03/04/2020	APPLITEK NV	Inv# F000021775	R&D Lab Supplies	$1,180.00		
	Total for Check:	96253				$1,180.00	$7,157.00
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 1451173960	UNIFORM SERVICES	$36.66		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534923000	UNIFORM SERVICES	$4.98		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534923001	UNIFORM SERVICES	$207.00		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534923001	UNIFORM SERVICES	$45.62		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534923002	UNIFORM SERVICES	$183.12		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534923003	UNIFORM SERVICES	$247.54		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534923003	UNIFORM SERVICES	$3.69		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534923004	UNIFORM SERVICES	$201.12		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534939867	UNIFORM SERVICES	$5.34		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534939868	BPO HAND SANITIZERS	$32.63		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534939869	UNIFORM SERVICES	$207.00		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534939869	UNIFORM SERVICES	$37.62		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534939870	UNIFORM SERVICES	$152.87		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534939871	UNIFORM SERVICES	$247.54		

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96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534939871	UNIFORM SERVICES	$3.69		
96255	03/04/2020	ARAMARK UNIFORM SERVICES	Inv# 534939872	UNIFORM SERVICES	$192.28		
	Total for Check:	96255				$1,808.70	$32,390.86
96256	03/04/2020	AT & T	Inv# 951 273-9586 736FEB20	2/20-3/19/20	$860.74		
	Total for Check:	96256				$860.74	$31,870.70
96257	03/04/2020	Almario, Fernando	Inv# 2/20-3/19/20 STIPEND	2/20-3/19/20 phone stipend	$40.00		
	Total for Check:	96257				$40.00	$400.00
96258	03/04/2020	BAVCO	Inv# 939550	Backflow Device Repair Parts f	$81.45		
96258	03/04/2020	BAVCO	Inv# 939550	Backflow Device Repair Parts f	$16.64		
96258	03/04/2020	BAVCO	Inv# 939550	freight	$9.90		
96258	03/04/2020	BAVCO	Inv# 939550	Backflow Device Repair Parts f	$7.18		
	Total for Check:	96258				$115.17	$789.22
96259	03/04/2020	BRENNTAG PACIFIC INC.	Inv# BPI26207	2/20 31800 lbs H.Peroxide	$6,757.50		
96259	03/04/2020	BRENNTAG PACIFIC INC.	Inv# BPI26207	Discount	($202.73)		
96259	03/04/2020	BRENNTAG PACIFIC INC.	Inv# BPI28387	2/27 43560 lbs H.Peroxide	$9,256.50		
96259	03/04/2020	BRENNTAG PACIFIC INC.	Inv# BPI28387	Discount	($277.70)		
	Total for Check:	96259				$15,533.57	$886,225.05
96260	03/04/2020	BUTIER ENGINEERING, INC.	Inv# 014 OCWD1340	Jan20 const.mgmt/GWRS F.Exp	$132,736.74		
	Total for Check:	96260				$132,736.74	$735,305.49
96261	03/04/2020	Bouyounes, Pauline	Inv# 1/21/20 TRAVEL	1/21 Anah/Riverside Intern or	$21.85		
96261	03/04/2020	Bouyounes, Pauline	Inv# 1/9/20 TRAVEL	1/9 La Palma PASMA Meeting	$16.91		
	Total for Check:	96261				$38.76	$751.73
96262	03/04/2020	CALGON CARBON CORPORATION	Inv# 90095690	F600 CARBON	$5,655.00		
96262	03/04/2020	CALGON CARBON CORPORATION	Inv# 90095690	F600 CARBON	$2,196.75		
96262	03/04/2020	CALGON CARBON CORPORATION	Inv# 90095690	shipping	$439.23		
	Total for Check:	96262				$8,290.98	$15,577.66
96263	03/04/2020	CALIFORNIA GROUNDWATER COALITION	Inv# 2020 CATEGORY 3 MEMBERSHI Mem Dues	2020 Category 3	$9,500.00		
	Total for Check:	96263				$9,500.00	$9,500.00
96264	03/04/2020	CALTROL INC.	Inv# CD99096386	Generated by reorder 1/16/20 1	$2,726.36		
96264	03/04/2020	CALTROL INC.	Inv# CD99096386	shipping&handling	$28.95		
	Total for Check:	96264				$2,755.31	$85,895.54

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96265	03/04/2020	CAMBRIDGE ISOTOPE LABORATORIES	Inv# 01191556	LABORATORY SUPPLIES	$309.93		
96265	03/04/2020	CAMBRIDGE ISOTOPE LABORATORIES	Inv# 01191556	LABORATORY SUPPLIES	$163.13		
96265	03/04/2020	CAMBRIDGE ISOTOPE LABORATORIES	Inv# 01191556	transportation	$21.36		
	Total for Check:	96265				$494.42	$6,471.46
96266	03/04/2020	CITY OF HUNTINGTON BEACH	Inv# 5386189FEB20	1/23-2/25/20 3 units	$36.71		
	Total for Check:	96266				$36.71	$359.54
96267	03/04/2020	COMMERCIAL DOOR OF ORANGE CO.	Inv# 24569	Repair the Closer to warehouse	$783.88		
96267	03/04/2020	COMMERCIAL DOOR OF ORANGE CO.	Inv# 24570	Roll Up Door Service Emergency	$324.89		
	Total for Check:	96267				$1,108.77	$16,230.00
96268	03/04/2020	CONSTELLATION NEWENERGY INC.	Inv# 16839681001FEB20	1/23-2/21/20 794KWH	$81.24		
	Total for Check:	96268				$81.24	$6,027,395.09
96269	03/04/2020	CBC RESTAURANTS CORP.	Inv# 1533080	BPO FOR CATERING	$80.00		
	Total for Check:	96269				$80.00	$849.44
96270	03/04/2020	CWEA	Inv# ID#000052776I A.HIGGINS A.HIGGINS	Cer Renewal	$104.00		
	Total for Check:	96270				$104.00	$3,094.00
96271	03/04/2020	DDB ENGINEERING, INC.	Inv# IN202014	1/4-31 GWRSFE permit-regulator	$2,815.00		
	Total for Check:	96271				$2,815.00	$21,311.00
96272	03/04/2020	Doshi, Natalia	Inv# 2/2-6/20 TRAVEL	2/2-6 Redding Wildlife Society	$97.49		
	Total for Check:	96272				$97.49	$636.49
96273	03/04/2020	EL MODENA HS NATURE CENTER/OUSD	Inv# EAGLE 2020	NatureCtrContribution 2020	$2,500.00		
	Total for Check:	96273				$2,500.00	$2,500.00
96274	03/04/2020	ELECTRICAL RELIABILITY SERVICES INC.	Inv# 51042177	Enersys Batteries 2DDm35-07	$10,847.81		
	Total for Check:	96274				$10,847.81	$47,710.21
96275	03/04/2020	ENVIRONMENTAL EXPRESS	Inv# 1000589489	Generated by reorder 2/1/20 9:	$822.15		
96275	03/04/2020	ENVIRONMENTAL EXPRESS	Inv# 1000589489	freight	$73.92		
	Total for Check:	96275				$896.07	$3,029.43

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96276	03/04/2020	EUROFINS CALSCIENCE, LLC	Inv# 4400033070	SAMPLE ANALYSIS	$172.50		
	Total for Check:	96276				$172.50	$940.00
96277	03/04/2020	EXCELSIOR ELEVATOR	Inv# 25066	BPO ELEVATOR SERVICE	$561.00		
96277	03/04/2020	EXCELSIOR ELEVATOR	Inv# 25066	discount	($16.83)		
	Total for Check:	96277				$544.17	$5,295.23
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 7805957	LABORATORY SUPPLIES	$35.64		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8011585	LABORATORY SUPPLIES	$382.13		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8290149	Generated by reorder 1/15/20 3	$514.67		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8290149	Shipping-Fuel	$4.45		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8380465	Generated by reorder 1/20/20 9	$263.00		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8380465	shipping-fuel surcharge	$4.45		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8474966	LABORATORY SUPPLIES	$47.08		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8474966	shipping-fuel surcharge	$4.45		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8474966	shipping	$3.18		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8563575	LABORATORY SUPPLIES	$53.63		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8563579	LABORATORY SUPPLIES	$300.50		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8822653	LABORATORY SUPPLIES	$25.14		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 8822653	LABORATORY SUPPLIES	$21.97		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9054766	LABORATORY SUPPLIES	$49.94		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9054768	SUPPLIES	$187.60		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9054768	shipping-fuel surcharge	$4.45		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9054771	SUPPLIES	$2,378.58		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9054771	SUPPLIES	$398.20		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9054771	SUPPLIES	$45.37		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9054771	shipping-fuel surcharge	$4.45		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9201684	SUPPLIES	$254.76		
96280	03/04/2020	FISHER SCIENTIFIC CO.	Inv# 9201685	LABORATORY SUPPLIES	$129.87		
	Total for Check:	96280				$5,113.51	$181,441.61
96281	03/04/2020	FOUNTAIN VALLEY, CITY OF	Inv# 8157-238000-13JAN20	12/20-2/20/20 17 units	$536.91		
96281	03/04/2020	FOUNTAIN VALLEY, CITY OF	Inv# 8157-238500-03JAN20	12/20-2/20/20 7 units	$308.69		
96281	03/04/2020	FOUNTAIN VALLEY, CITY OF	Inv# 8166-100000-01JAN20	12/20-2/20/20 1354 units	$7,062.74		
96281	03/04/2020	FOUNTAIN VALLEY, CITY OF	Inv# 8166-300500-01JAN20	12/20-2/20/20 1644 units	$6,255.58		

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	Total for Check:	96281				$14,163.92	$52,720.15
96282	03/04/2020	FRONTIER COMMUNICATIONS	Inv# 714-965-1308MAR20	2/23-3/21/20	$166.71		
	Total for Check:	96282				$166.71	$29,407.11
96283	03/04/2020	GEOTECH ENVIRONMENTAL EQUIPMENT, INC.	Inv# 611192	WATER LEVEL TAPE	$598.00		
96283	03/04/2020	GEOTECH ENVIRONMENTAL EQUIPMENT, INC.	Inv# 611192	discounts	($5.98)		
	Total for Check:	96283				$592.02	$10,263.92
96284	03/04/2020	GLOBAL EQUIPMENT COMPANY	Inv# 115522132	WHITE BOARDS	$493.61		
96284	03/04/2020	GLOBAL EQUIPMENT COMPANY	Inv# 115522132	Shipping&Handling	$208.77		
96284	03/04/2020	GLOBAL EQUIPMENT COMPANY	Inv# 115522132	WHITE BOARDS	$145.67		
96284	03/04/2020	GLOBAL EQUIPMENT COMPANY	Inv# 115522132	WHITE BOARDS	$15.12		
96284	03/04/2020	GLOBAL EQUIPMENT COMPANY	Inv# 115522132	WHITE BOARDS	$3.49		
	Total for Check:	96284				$866.66	$3,589.68
96285	03/04/2020	GOVERNMENTJOBS.COM, INC.	Inv# INV-13190	License 3/20/20-3/19/20	$1,350.00		
96285	03/04/2020	GOVERNMENTJOBS.COM, INC.	Inv# INV-13195.	Subscription 2/14/20-2/13/21	$5,308.93		
	Total for Check:	96285				$6,658.93	$6,658.93
96286	03/04/2020	GRAINGER INC.	Inv# 9403592653	HID Wall Mount Proimity Reader	$275.49		
96286	03/04/2020	GRAINGER INC.	Inv# 9418832128	SCADA UPS Power Module	$1,918.45		
96286	03/04/2020	GRAINGER INC.	Inv# 9419680021	Ridgid Jaw Insert Set, PK 3	$360.99		
96286	03/04/2020	GRAINGER INC.	Inv# 9419701330	BPO INDUSTRIAL SUPPLIES	$340.41		
96286	03/04/2020	GRAINGER INC.	Inv# 9419701348	BPO INDUSTRIAL SUPPLIES	$20.99		
96286	03/04/2020	GRAINGER INC.	Inv# 9419943221	BPO INDUSTRIAL SUPPLIES	$76.56		
96286	03/04/2020	GRAINGER INC.	Inv# 9419949772	BPO INDUSTRIAL SUPPLIES	$71.75		
96286	03/04/2020	GRAINGER INC.	Inv# 9421475683	Safety Eye wash replacement fo	$654.72		
	Total for Check:	96286				$3,719.36	$103,309.16
96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314728907	Generated by reorder 2/18/20 9	$42.52		
96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314728907	freight	$10.90		
96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314728907	handling	$4.35		
96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314728907	discount	($0.39)		

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96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314750766	Generated by reorder 1/27/20 1	$881.35		
96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314750766	Generated by reorder 1/27/20 1	$342.44		
96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314750766	Generated by reorder 1/27/20 1	$342.44		
96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314750766	freight&handling	$29.45		
96287	03/04/2020	GRAYBAR ELECTRIC COMPANY, INC.	Inv# 9314750766	discount	($14.40)		
	Total for Check:	96287				$1,638.66	$2,527.20
96288	03/04/2020	HABITAT WEST	Inv# 89834 REVISED WO#4 House	Jan20 wo#4 Burris B-Boat	$27,657.32		
	Total for Check:	96288				$27,657.32	$185,806.59
96289	03/04/2020	HACH COMPANY	Inv# 11816422	Generated by reorder 1/16/20 1	$4,465.29		
96289	03/04/2020	HACH COMPANY	Inv# 11816422	freight	$107.61		
96289	03/04/2020	HACH COMPANY	Inv# 11822437	HACH Calibration Lid TU5xxx (R	$49.05		
96289	03/04/2020	HACH COMPANY	Inv# 11822437	frieght	$13.04		
	Total for Check:	96289				$4,634.99	$95,987.06
96290	03/04/2020	HALDEMAN INC.	Inv# I167804	Generated by reorder 1/20/20 8	$326.25		
	Total for Check:	96290				$326.25	$12,288.75
96291	03/04/2020	HOLE PRODUCTS	Inv# SI-4HPU013274	Replenishment Sand MBI 2 & 4	$881.66		
96291	03/04/2020	HOLE PRODUCTS	Inv# SI-4HPU013274	Replenishment Sand MBI 2 & 4	$54.38		
	Total for Check:	96291				$936.04	$6,012.50
96292	03/04/2020	HOME DEPOT CREDIT SERVICES	Inv# 3012354	BPO INDUSTRIAL SUPPLIES	$39.72		
96292	03/04/2020	HOME DEPOT CREDIT SERVICES	Inv# 3022713	BPO INDUSTRIAL SUPPLIES	$123.36		
96292	03/04/2020	HOME DEPOT CREDIT SERVICES	Inv# 4536943	BPO INDUSTRIAL SUPPLIES	$90.13		
96292	03/04/2020	HOME DEPOT CREDIT SERVICES	Inv# 7540244	BPO INDUSTRIAL SUPPLIES	$43.06		
	Total for Check:	96292				$296.27	$12,793.92
96293	03/04/2020	HUITT-ZOLLARS, INC.	Inv# 3089770117	Thru 2/1 Smith Basin Rehab	$483.75		
	Total for Check:	96293				$483.75	$33,707.85
96294	03/04/2020	IDEXX LABORATORIES, INC.	Inv# 3059697429	LABORATORY SUPPLIES	$693.85		
96294	03/04/2020	IDEXX LABORATORIES, INC.	Inv# 3059697429	Shipping	$16.05		
	Total for Check:	96294				$709.90	$8,273.41

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96295	03/04/2020	INSIGHT PUBLIC SECTOR, INC	Inv# 1100711792	MS VS SW for GIS and Lab Staff	$656.26		
	Total for Check:	96295				$656.26	$17,540.33
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 933842	Repl.forINV#933713	$173.38		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 933865	BPO PIPE & SUPPLIES	$390.07		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 933865	discounts	($7.80)		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 933896	BPO PIPE & SUPPLIES	$154.67		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 933896	discounts	($3.09)		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 933975	Credit for INV#933713	($283.24)		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 934371	300lb SS 12" Flanges for CIP L	$8,352.00		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 934371	300lb SS 12" Flanges for CIP L	$571.43		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 934371	Incoming Frt	$33.66		
96296	03/04/2020	IRVINE PIPE & SUPPLY	Inv# 934371	Discount	($179.14)		
	Total for Check:	96296				$9,201.94	$75,783.29
96297	03/04/2020	JONATHON FURTADO	Inv# 2/27/20 CWEA certification ren	CERTIFICATIO 2/27/20 CWEA	$192.00		
	Total for Check:	96297				$192.00	$690.25
96298	03/04/2020	KW COMMUNICATIONS	Inv# OCWD1020-20	Jan20 GWRS tour/outreach	$7,291.25		
	Total for Check:	96298				$7,291.25	$55,066.75
96299	03/04/2020	LHOIST NORTH AMERICA	Inv# 1102003668A	2/2 25.25 tons lime	$5,984.26		
96299	03/04/2020	LHOIST NORTH AMERICA	Inv# 1102003668B	2/4 25.20 tons lime	$5,972.40		
96299	03/04/2020	LHOIST NORTH AMERICA	Inv# 1102003668C	2/6 25.97 tons lime	$6,154.89		
96299	03/04/2020	LHOIST NORTH AMERICA	Inv# 1102003885	2/9 25.47 tons lime	$6,036.39		
	Total for Check:	96299				$24,147.94	$601,088.91
96300	03/04/2020	LUCCI'S DELI BAKERY	Inv# 12949 ACT.SHTR.TRAIN.	Food for Training	$171.42		
	Total for Check:	96300				$171.42	$8,958.73
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.	$282.75		
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.	$108.75		
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.	$65.25		
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.	$43.50		

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96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.		$38.06		
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.		$38.06		
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.		$32.62		
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.		$32.62		
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.		$19.58		
96301	03/04/2020	MANHATTAN STITCHING COMPANY INC	Inv# 74540	Uniforms for Engineering Dept.		$4.36		
	Total for Check:	96301					$665.55	$20,987.13
96302	03/04/2020	MCCONNELL, JAMES F.	Inv# FEBRUARY 28, 2020 JAN20 legis.support/D.C.	Jan20		$7,500.00		
	Total for Check:	96302					$7,500.00	$61,077.40
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403075/5	BPO INDUSTRIAL SUPPLIES		$181.13		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403075/5	discount		($5.04)		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403080/5	BPO INDUSTRIAL SUPPLIES		$266.36		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403080/5	discount		($7.42)		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403082/5	BPO INDUSTRIAL SUPPLIES		$260.54		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403082/5	discounts		($7.25)		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403146/5	BPO INDUSTRIAL SUPPLIES		$75.24		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403146/5	discounts		($2.09)		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403149/5	BPO INDUSTRIAL SUPPLIES		$40.93		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403149/5	discounts		($1.14)		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 481084/1	BPO INDUSTRIAL SUPPLIES		$102.31		
96304	03/04/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 481084/1	discounts		($2.85)		
	Total for Check:	96304					$900.72	$4,135.40
96305	03/04/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35515301	BPO INDUSTRIAL SUPPLIES		$44.44		
96305	03/04/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35515301	shipping		$8.35		
96305	03/04/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35515301	discounts		($0.89)		

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Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
Total for Check:	96305					$51.90	$29,005.57
96306	03/04/2020	MENDOCINO FARMS LLC	Inv# 152868	GAP LUNCH MEETING	$255.37		
96306	03/04/2020	MENDOCINO FARMS LLC	Inv# 153946	BPO CATERING SERVICE	$153.28		
96306	03/04/2020	MENDOCINO FARMS LLC	Inv# 153946	BPO CATERING SERVICE	$54.14		
96306	03/04/2020	MENDOCINO FARMS LLC	Inv# 153946	freight	$29.09		
96306	03/04/2020	MENDOCINO FARMS LLC	Inv# 154309	BPO CATERING SERVICE	$226.28		
96306	03/04/2020	MENDOCINO FARMS LLC	Inv# 154309	freight	$29.09		
96306	03/04/2020	MENDOCINO FARMS LLC	Inv# 155972	BPO CATERING SERVICE	$184.90		
96306	03/04/2020	MENDOCINO FARMS LLC	Inv# 155972	freight	$29.09		
Total for Check:	96306					$961.24	$5,529.30
96307	03/04/2020	MEYERS FOZI & DWORK	Inv# 18189	EmploymentSvcsThru1/31/20	$850.00		
Total for Check:	96307					$850.00	$3,075.00
96308	03/04/2020	MUNICIPAL WTR DIST OF O.C.	Inv# PROP84GRANTREIMB FEB20 PassThruProp84GrantReimb		$778,936.68		
Total for Check:	96308					$778,936.68	$778,936.68
96309	03/04/2020	Macbeth, Cameron	Inv# 1/19-2/18/20 STIPEND	1/19-2/18/20 phone stipend	$24.33		
96309	03/04/2020	Macbeth, Cameron	Inv# 1/21-29/20 FAA DRONE certifica	1/21-29/20 FAA drone	$210.00		
96309	03/04/2020	Macbeth, Cameron	Inv# 10/19-11/18/19 STIPEND stipend	10/19-11/18/19 phone	$24.11		
96309	03/04/2020	Macbeth, Cameron	Inv# 10/7/19 SUPPLIES Boxe	10/7/19 wood shavings/Owl	$6.51		
96309	03/04/2020	Macbeth, Cameron	Inv# 11/19-12/18/19 STIPEND stipend	11/19-12/18/19 phone	$24.11		
96309	03/04/2020	Macbeth, Cameron	Inv# 12/18/19 GIS CERTIFICATIO	12/18/19 GIS cert-class #3	$910.00		
96309	03/04/2020	Macbeth, Cameron	Inv# 12/19/19-1/18/20 STIPEND phone stipend	12/19/19-1/18/20	$24.11		
96309	03/04/2020	Macbeth, Cameron	Inv# 2/19-3/18/20 STIPEND	2/19-3/18/20 phone stipend	$24.33		
96309	03/04/2020	Macbeth, Cameron	Inv# 2/6/20 NATURAL RES CERTIF drone certific	2/6/20 Nat.Reso	$5.00		
Total for Check:	96309					$1,252.50	$3,272.92
96310	03/04/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 507257	BPO AUTO PARTS & SUPPLIES	$39.13		

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96310	03/04/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 507257	discount	($0.78)		
96310	03/04/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 507575	BPO AUTO PARTS & SUPPLIES	$44.35		
96310	03/04/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 507575	Discount	($0.89)		
	Total for Check:	96310				$81.81	$5,537.56
96311	03/04/2020	NEW LINE FIRE	Inv# 02062020-01	New Line Fire - EST 10AMP Boos	$625.31		
	Total for Check:	96311				$625.31	$6,768.62
96312	03/04/2020	NEWPORT BEACH, CITY OF	Inv# REFUND RA	WPF#112-19-12-C Refund RA	$48,700.00		
	Total for Check:	96312				$48,700.00	$48,700.00
96313	03/04/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2789173	2/3 4854 gal s.hypochlorite	$3,446.34		
96313	03/04/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2789174	2/3 4908 gal s.hypochlorite	$3,484.68		
96313	03/04/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2789175	2/3 4918 gal s.hypochlorite	$3,491.78		
96313	03/04/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2790268	2/6 4904 gal s.hypochlorite	$3,481.84		
96313	03/04/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2790269	2/6 4914 gal s.hypochlorite	$3,488.94		
96313	03/04/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2790270	2/6 4948 gal s.hypochlorite	$3,513.08		
96313	03/04/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2790689	2/7 4880 gal s.hypochlorite	$3,464.80		
96313	03/04/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2790690	2/7 4852 gal s.hypochlorite	$3,444.92		
	Total for Check:	96313				$27,816.38	$1,597,392.01
96314	03/04/2020	ONESOURCE DISTRIBUTORS INC.	Inv# S6388180.001	Electrical Hardware - Portable	$310.81		
96314	03/04/2020	ONESOURCE DISTRIBUTORS INC.	Inv# S6388180.001	S&H	$9.24		
96314	03/04/2020	ONESOURCE DISTRIBUTORS INC.	Inv# S6388180.001	Discount	($2.86)		
96314	03/04/2020	ONESOURCE DISTRIBUTORS INC.	Inv# S6388180.002	Electrical Hardware - Portable	$271.03		
96314	03/04/2020	ONESOURCE DISTRIBUTORS INC.	Inv# S6388180.002	Electrical Hardware - Portable	$132.51		
96314	03/04/2020	ONESOURCE DISTRIBUTORS INC.	Inv# S6388180.002	Discount	($3.71)		
	Total for Check:	96314				$717.02	$120,861.88
96315	03/04/2020	ORANGE COUNTY PRODUCE	Inv# REFUND RA	RA Overpayment July-Dec19	$13,613.59		

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	Total for Check:	96315				$13,613.59	$13,613.59
96316	03/04/2020	OSCAR'S LOCK & SAFE	Inv# 27717	FIELD SUPPLIES	$703.40		
	Total for Check:	96316				$703.40	$4,409.38
96317	03/04/2020	PERKINELMER HEALTH SCIENCES INC.	Inv# 5304467113	LABORATORY SUPPLIES	$127.24		
96317	03/04/2020	PERKINELMER HEALTH SCIENCES INC.	Inv# 5304467113	Freight	$18.51		
	Total for Check:	96317				$145.75	$521.97
96318	03/04/2020	PETE'S ROAD SERVICE, INC.	Inv# 391215-00	BPO TIRE & SUPPLIES	$37.04		
96318	03/04/2020	PETE'S ROAD SERVICE, INC.	Inv# 393669-00	BPO TIRE & SUPPLIES	$27.04		
	Total for Check:	96318				$64.08	$627.48
96319	03/04/2020	PHENOMENEX INC.	Inv# CIUS-20013598	LABORATORY SUPPLIES	$875.39		
96319	03/04/2020	PHENOMENEX INC.	Inv# CIUS-20013598	handling	$6.51		
96319	03/04/2020	PHENOMENEX INC.	Inv# CIUS-20013598	discounts	($16.22)		
	Total for Check:	96319				$865.68	$41,488.61
96320	03/04/2020	POLYDYNE INC.	Inv# 1427880	PLANT CHEMICAL	$5,752.88		
	Total for Check:	96320				$5,752.88	$31,640.84
96321	03/04/2020	POWER PROS	Inv# 6241755-804	Generated by reorder 2/7/20 11	$2,800.00		
96321	03/04/2020	POWER PROS	Inv# 6241755-804	Shipping	$353.00		
	Total for Check:	96321				$3,153.00	$5,521.60
96322	03/04/2020	PROCARE WORK INJURY CENTER	Inv# 286084	BPO MEDICAL SERIVCES	$105.00		
	Total for Check:	96322				$105.00	$1,640.00
96323	03/04/2020	Patel, Mehul	Inv# 1/23-2/22/20 STIPEND	1/23-2/22/20 phone stipend	$40.00		
	Total for Check:	96323				$40.00	$1,120.91
96325	03/04/2020	QUINN COMPANY	Inv# PC830379187	BPO EQUIPMENT & SUPPLIES	$924.84		
96325	03/04/2020	QUINN COMPANY	Inv# PC830379188	BPO EQUIPMENT & SUPPLIES	$578.20		
96325	03/04/2020	QUINN COMPANY	Inv# PC830379226	Generated by reorder 10/9/19 1	$239.81		
96325	03/04/2020	QUINN COMPANY	Inv# PC830379226	Generated by reorder 10/9/19 1	$92.71		
96325	03/04/2020	QUINN COMPANY	Inv# PC830379226	Generated by reorder 10/9/19 1	$46.03		
96325	03/04/2020	QUINN COMPANY	Inv# PC830379226	Generated by reorder 10/9/19 1	$42.93		
96325	03/04/2020	QUINN COMPANY	Inv# PC830379226	Generated by reorder 10/9/19 1	$32.87		
96325	03/04/2020	QUINN COMPANY	Inv# PC830379274	BPO EQUIPMENT & SUPPLIES	$103.76		
96325	03/04/2020	QUINN COMPANY	Inv# PC830379274	MISC	$16.17		

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96325	03/04/2020	QUINN COMPANY	Inv# PC830379371	BPO EQUIPMENT & SUPPLIES	$57.07		
96325	03/04/2020	QUINN COMPANY	Inv# PR830216317	credit parts- head	($418.11)		
	Total for Check:	96325				$1,716.28	$1,309,852.74
96326	03/04/2020	RED WING SHOE CO. INC.	Inv# 417-1-59931	BPO WORK BOOTS	$139.19		
	Total for Check:	96326				$139.19	$9,207.85
96327	03/04/2020	RESTEK CORPORATION	Inv# CD50055905	LABORATORY SUPPLIES	$870.00		
96327	03/04/2020	RESTEK CORPORATION	Inv# CD50055905	LABORATORY SUPPLIES	$505.70		
96327	03/04/2020	RESTEK CORPORATION	Inv# CD50055905	LABORATORY SUPPLIES	$467.62		
96327	03/04/2020	RESTEK CORPORATION	Inv# CD50055905	LABORATORY SUPPLIES	$375.19		
96327	03/04/2020	RESTEK CORPORATION	Inv# CD50055905	LABORATORY SUPPLIES	$309.95		
96327	03/04/2020	RESTEK CORPORATION	Inv# CD50055905	LABORATORY SUPPLIES	$266.44		
96327	03/04/2020	RESTEK CORPORATION	Inv# CD50055905	LABORATORY SUPPLIES	$206.62		
96327	03/04/2020	RESTEK CORPORATION	Inv# CD50055905	LABORATORY SUPPLIES	$22.20		
	Total for Check:	96327				$3,023.72	$9,417.86
96328	03/04/2020	SAFETY-KLEEN CORPORATION	Inv# 82292503	Parts Washer Service	$702.56		
96328	03/04/2020	SAFETY-KLEEN CORPORATION	Inv# 82292503	Parts Washer Service	$20.00		
96328	03/04/2020	SAFETY-KLEEN CORPORATION	Inv# 82292503	Parts Washer Service	$13.93		
	Total for Check:	96328				$736.49	$1,472.62
96329	03/04/2020	SC FUELS	Inv# 1594574-IN	BPO BULK RED DIESEL FUEL	$2,602.78		
96329	03/04/2020	SC FUELS	Inv# 1594574-IN	discount	($24.07)		
	Total for Check:	96329				$2,578.71	$60,897.87
96330	03/04/2020	SCHEEVEL ENGINEERING	Inv# 1320	Jan20 Prado Basin FS	$2,150.00		
96330	03/04/2020	SCHEEVEL ENGINEERING	Inv# 1321	Jan20 Prado Basin FS-USFWS	$3,550.00		
	Total for Check:	96330				$5,700.00	$12,300.00
96331	03/04/2020	SEPARATION PROCESSES, INC.	Inv# 9657	Jan20 GWRS Final Expansion	$7,807.80		
96331	03/04/2020	SEPARATION PROCESSES, INC.	Inv# 9662	Jan20 Ops Support	$9,562.00		
	Total for Check:	96331				$17,369.80	$112,873.16
96332	03/04/2020	SHANNON ROBACK	Inv# DR SHANNON ROBACK 01/2020 Roback USBR&NSF Grants	Shannon	$2,488.20		
96332	03/04/2020	SHANNON ROBACK	Inv# DR SHANNON ROBACK 01/2020 Roback USBR&NSF Grants	Shannon	$1,857.14		
	Total for Check:	96332				$4,345.34	$18,607.44

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96333	03/04/2020	SHEAKLEY WORKFORCE MGMT SVCS LLC.	Inv# FLEX00013853	FSA Fees	$240.30		
Total for Check:		96333				$240.30	$1,939.70
96334	03/04/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-033-3659-92FEB20	1/25/-2/25/20 122 KWH	$22.23		
96334	03/04/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-043-7407-25FEB20	1/23-2/21/20 1650KWH	$2,044.28		
96334	03/04/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-051-0464-13FEB20	1/22-2/20/20 991KWH	$491.52		
96334	03/04/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-051-0464-13JAN20	12/20-1/22/20 1795KWH	$3,533.47		
96334	03/04/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-051-2476-38JAN20	12/20-1/22/20 1622KWH	$2,208.52		
96334	03/04/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-51-2476-38FEB20	1/22-2/20/20 971KWH	$779.12		
Total for Check:		96334				$9,079.14	$4,918,755.84
96335	03/04/2020	STANTEC CONSULTING INC. (SCI)	Inv# 1617247	Thru 1/24 Conrock-Warner Trans	$1,321.10		
96335	03/04/2020	STANTEC CONSULTING INC. (SCI)	Inv# 1617316	Thru 1/24 Burris Basin GWRS Pi	$11,411.00		
Total for Check:		96335				$12,732.10	$234,105.93
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3438640394	OFFICE SUPPLIES	$10.32		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3438666794	OFFICE SUPPLIES	$92.62		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3438666794	OFFICE SUPPLIES	$34.96		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3438666794	OFFICE SUPPLIES	$19.74		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3438666794	OFFICE SUPPLIES	$18.32		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3438666794	OFFICE SUPPLIES	$15.40		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3438703231	OFFICE SUPPLIES	$36.10		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3438703231	OFFICE SUPPLIES	$15.18		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$174.87		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$125.04		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$112.88		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$82.11		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$66.25		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$21.87		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$20.61		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$13.12		

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96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$12.77		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$5.20		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019109	CWEF - OFFICE SUPPLY	$81.61		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019110	CWEF - OFFICE SUPPLY	$29.23		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019110	CWEF - OFFICE SUPPLY	$25.15		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019110	CWEF - OFFICE SUPPLY	$22.20		
96338	03/04/2020	STAPLES ADVANTAGE	Inv# 3439019108	CWEF - OFFICE SUPPLY	$159.05		
	Total for Check:	96338				$1,194.60	$37,593.34
96339	03/04/2020	SUEZ WTS ANALYTICAL INSTRUMENTS, INC.	Inv# 900247003	Capsule Filter, High Cap. 40 m	$1,042.91		
96339	03/04/2020	SUEZ WTS ANALYTICAL INSTRUMENTS, INC.	Inv# 900247004	Autosampler Needle Assembly Ki	$1,135.35		
96339	03/04/2020	SUEZ WTS ANALYTICAL INSTRUMENTS, INC.	Inv# 900247004	freight&handling	$14.56		
	Total for Check:	96339				$2,192.82	$191,321.09
96340	03/04/2020	SUEZ WTS SERVICES USA, INC.	Inv# 900250026	DI WATER SERVICE	$456.75		
	Total for Check:	96340				$456.75	$6,100.41
96341	03/04/2020	SWRCB-DWOCP	Inv# CERT RENEWAL OP#39833	OP#39833 Grade 2	$80.00		
	Total for Check:	96341				$80.00	$250.00
96342	03/04/2020	TANKNOLOGY, INC.	Inv# 1424594	BPO UNDERGROUND SERVICE	$213.50		
	Total for Check:	96342				$213.50	$4,443.00
96343	03/04/2020	TAYLOR WOODSON	Inv# 12/17/19-1/16/20 STIPEND phone stipend	12/17/19-1/16/20	$40.00		
	Total for Check:	96343				$40.00	$320.00
96344	03/04/2020	THE WATER RESEARCH FOUNDATION	Inv# WRF PROJECT 5041 CO-FUNDE 5041 Co-Funder Fun	WRF Project	$75,179.00		
	Total for Check:	96344				$75,179.00	$75,179.00
96345	03/04/2020	TIME WARNER COMMUNICATIONS	Inv# 0410454022120	BPO CABLE TV SERVICE	$126.72		
	Total for Check:	96345				$126.72	$19,774.95
96346	03/04/2020	TRAFFIC MANAGEMENT INC	Inv# 597211	Traffic Cones for Maintenance	$1,095.55		
96346	03/04/2020	TRAFFIC MANAGEMENT INC	Inv# 597211	delivery	$48.93		
	Total for Check:	96346				$1,144.48	$2,288.96
96347	03/04/2020	TROPICAL PLAZA NURSERY, INC.	Inv# M61121	ANNUAL LANDSCAPE MAINT	$3,727.91		
96347	03/04/2020	TROPICAL PLAZA NURSERY, INC.	Inv# M61131	MID BASIN SITE MAINT	$900.00		

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96347	03/04/2020	TROPICAL PLAZA NURSERY, INC.	Inv# M61131	MID BASIN SITE MAINT	$300.00		
	Total for Check:	96347				$4,927.91	$29,393.58
96348	03/04/2020	TRUCPARCO	Inv# 428661	BPO TRUCK PARTS	$98.91		
	Total for Check:	96348				$98.91	$3,218.42
96349	03/04/2020	U-LINE	Inv# 116698579	CWEF - DBL STICK TAPE	$1,859.62		
96349	03/04/2020	U-LINE	Inv# 116698579	freight	$20.96		
96349	03/04/2020	U-LINE	Inv# 116790611	SHIPPING SUPPLIES	$167.47		
96349	03/04/2020	U-LINE	Inv# 116790611	freight	$34.63		
96349	03/04/2020	U-LINE	Inv# 116790611	SHIPPING SUPPLIES	$6.53		
96349	03/04/2020	U-LINE	Inv# 116792883	CARBON SHIPPING	$388.23		
96349	03/04/2020	U-LINE	Inv# 116792883	CARBON SHIPPING	$102.23		
96349	03/04/2020	U-LINE	Inv# 116792883	freight	$99.81		
96349	03/04/2020	U-LINE	Inv# 116792883	CARBON SHIPPING	$73.95		
	Total for Check:	96349				$2,753.43	$8,020.10
96350	03/04/2020	UCT LLC	Inv# IN006464	LABORATORY SUPPLIES	$283.84		
	Total for Check:	96350				$283.84	$15,618.13
96351	03/04/2020	UNION BANK	Inv# 1194304	01/01/20-01/31/2020	$1,518.67		
	Total for Check:	96351				$1,518.67	$13,005.36
96352	03/04/2020	UNITED PARCEL SERVICE	Inv# 0000X81601070	ups	$62.53		
	Total for Check:	96352				$62.53	$1,487.58
96353	03/04/2020	UNIVAR SOLUTIONS USA	Inv# 48494225	2/12 24.67 tons sulfuric acid	$3,577.15		
96353	03/04/2020	UNIVAR SOLUTIONS USA	Inv# 48494225	Discount	($71.54)		
96353	03/04/2020	UNIVAR SOLUTIONS USA	Inv# 48497781	2/27 25.35 tons sulfuric acid	$3,675.75		
96353	03/04/2020	UNIVAR SOLUTIONS USA	Inv# 48497781	Discount	($73.52)		
96353	03/04/2020	UNIVAR SOLUTIONS USA	Inv# 48497782	2/27 25.48 tons sulfuric acid	$3,694.60		
96353	03/04/2020	UNIVAR SOLUTIONS USA	Inv# 48497782	Discount	($73.89)		
	Total for Check:	96353				$10,728.55	$244,980.07
96354	03/04/2020	UTILIQUEST LLC	Inv# 286498-Q 9908	1/26-2/1 screen/mark pipes	$83.06		
96354	03/04/2020	UTILIQUEST LLC	Inv# 286498-Q 9911	1/26-2/1 screen/mark pipes	$1,161.65		
96354	03/04/2020	UTILIQUEST LLC	Inv# 286498-Q 9922	1/26-2/1 screen/mark pipes	$677.63		
96354	03/04/2020	UTILIQUEST LLC	Inv# 286498-Q 9932	1/26-2/1 screen/mark pipes	$13.75		
	Total for Check:	96354				$1,936.09	$75,600.33

Orange County Water District

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Begin Date: 02/27/2020 **End Date:** 03/04/2020

Accounts Payable Check Register Presented for Board Ratification and/or Approval

Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96355	03/04/2020	VWR INTERNATIONAL LLC	Inv# 8089071597	LABORATORY SUPPLIES	$106.49		
96355	03/04/2020	VWR INTERNATIONAL LLC	Inv# 8089085061	LABORATORY SUPPLIES	$34.52		
96355	03/04/2020	VWR INTERNATIONAL LLC	Inv# 8089085062	LABORATORY SUPPLIES	$23.66		
	Total for Check:	96355				$164.67	$74,667.71
96356	03/04/2020	WATERS TECHNOLOGIES CORP.	Inv# 230339046	SUPPLIES	$1,787.20		
96356	03/04/2020	WATERS TECHNOLOGIES CORP.	Inv# 230339046	freight	$18.56		
	Total for Check:	96356				$1,805.76	$27,813.30
96357	03/04/2020	WESTMINSTER SCHOOL DISTRICT	Inv# 60NI0079	NGWL-BUS FUNDNG DEMILLE 01.24	$174.38		
	Total for Check:	96357				$174.38	$174.38
96358	03/04/2020	WYLAND FOUNDATION	Inv# 32604	CWEF - PRESENTER	$2,500.00		
	Total for Check:	96358				$2,500.00	$2,500.00
96359	03/04/2020	Woodside, Greg	Inv# 2/24/20 TRAVEL	2/24 H.B. Prado FIRO Meeting	$227.04		
	Total for Check:	96359				$227.04	$5,009.07
96360	03/04/2020	XEROX CORPORATION	Inv# 099509822	BPO XEROX MAINTENANCE	$28.39		
96360	03/04/2020	XEROX CORPORATION	Inv# 099509823	BPO XEROX MAINTENANCE	$12.00		
96360	03/04/2020	XEROX CORPORATION	Inv# 099509824	BPO XEROX EQUIPMENT LEASE	$641.41		
	Total for Check:	96360				$681.80	$24,509.61
977040	02/28/2020	WELLS FARGO BANK	Inv# MARCH 2, 2020 #6911	Mr.2,20 DPR#3 #6911	$20,952.03		
	Total for Check:	977040				$20,952.03	$15,079,058.13
977041	03/02/2020	PRUDENTIAL RETIREMENT SERVICE	Inv# MARCH 2, 2020	Mar.2,20 DPR#3 401a	$6,865.55		
	Total for Check:	977041				$6,865.55	$3,913,133.30
977042	03/02/2020	PRUDENTIAL RETIREMENT	Inv# MARCH 2, 2020	Mar.2,20 DPR#3 457b	$2,500.00		
	Total for Check:	977042				$2,500.00	$1,040,045.96
977043	02/28/2020	Kalinowski, James J.	Inv# CK#2181 PR#5	Final PR CK#2181	$4,133.46		
	Total for Check:	977043				$4,133.46	$4,602.01
977044	03/04/2020	UNION BANK OF CALIFORNIA, N.A.	Inv# COP 2003A INTERESTS 3/4	COP 2003A Interests	$99,312.02		
	Total for Check:	977044				$99,312.02	$9,021,894.80
977045	03/04/2020	CITIBANK NA NEW YORK, ABA	Inv# OCWD 2007B SWAP PAY 2/5 Pay 02/05	OCWD 2007B Swap	$42,141.55		
	Total for Check:	977045				$42,141.55	$1,122,291.21
Run Date:	***3/3/2020***				**$1,515,512.43**	**$1,515,512.43**	

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Begin Date: 02/27/2020 **End Date:** 03/04/2020

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Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
802575	03/04/2020	FEDERAL EXPRESS CORPORATION	Inv# 3-228-69143	Package Delivery	$227.36		
802575	03/04/2020	FEDERAL EXPRESS CORPORATION	Inv# 6-899-71938	Package Delivery	$873.09		
802575	03/04/2020	FEDERAL EXPRESS CORPORATION	Inv# 6-906-76054	Package Delivery	$445.37		
	Total for Check:	802575				$1,545.82	$23,815.39
802576	03/04/2020	IRON MOUNTAIN	Inv# CLVW986	BPO ARCHIVAL SERVICES	$3,590.95		
	Total for Check:	802576				$3,590.95	$39,032.73
802577	03/04/2020	SIGMA-ALDRICH, INC.	Inv# 549927886	LABORATORY SUPPLIES	$388.24		
802577	03/04/2020	SIGMA-ALDRICH, INC.	Inv# 549927886	LABORATORY SUPPLIES	$170.95		
802577	03/04/2020	SIGMA-ALDRICH, INC.	Inv# 549927886	LABORATORY SUPPLIES	$81.46		
802577	03/04/2020	SIGMA-ALDRICH, INC.	Inv# 549927886	trans/handling	$14.57		
	Total for Check:	802577				$655.22	$36,876.13
802578	03/04/2020	SPEX CERTIPREP, LLC	Inv# 402775	freight	$103.07		
802578	03/04/2020	SPEX CERTIPREP, LLC	Inv# 402775	LABORATORY SUPPLIES	$48.80		
	Total for Check:	802578				$151.87	$4,540.31
802579	03/04/2020	WECK LABORATORIES, INC.	Inv# W0B0166-OCWD ANALYSES	BPO FOR WATER QUALITY	$240.00		
	Total for Check:	802579				$240.00	$51,902.50
802580	03/04/2020	WESTAIR GASES & EQUIPMENT	Inv# 11004959	Lab-helium,nitrogen & 6 pk	$1,168.86		
802580	03/04/2020	WESTAIR GASES & EQUIPMENT	Inv# 11004959	freight	$31.42		
802580	03/04/2020	WESTAIR GASES & EQUIPMENT	Inv# 11004959	hazardous material	$11.31		
	Total for Check:	802580				$1,211.59	$51,754.34
Run Date:	***3/3/2020***				**$7,395.45**	**$7,395.45**	

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Begin Date: 03/05/2020 **End Date:** 03/11/2020

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Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
94892	11/26/2019	SANTA ANA REGIONAL WATER	Inv# SECTION 401 PERMIT FEE Application	Section 401 Permit	($520.00)		
	Total for Check:	94892				($520.00)	$0.00
95711	01/29/2020	CALIFORNIA COASTAL COMMISSION	Inv# COASTAL COMMISSION APP FE	Application Fee	($312.00)		
	Total for Check:	95711				($312.00)	$0.00
96361	03/11/2020	AIRESPRING INC.	Inv# 1349549FEB20	2/1-2/29/20	$564.43		
	Total for Check:	96361				$564.43	$5,079.87
96362	03/11/2020	ACCO ENGINEERED SYSTEMS	Inv# 1799048	A/C in Lab is Out, troubleshoo	$560.00		
96362	03/11/2020	ACCO ENGINEERED SYSTEMS	Inv# 1799048	A/C in Lab is Out, troubleshoo	$40.00		
96362	03/11/2020	ACCO ENGINEERED SYSTEMS	Inv# 1799048	A/C in Lab is Out, troubleshoo	$15.00		
96362	03/11/2020	ACCO ENGINEERED SYSTEMS	Inv# 1799048	A/C in Lab is Out, troubleshoo	$5.39		
96362	03/11/2020	ACCO ENGINEERED SYSTEMS	Inv# 1823207	Building 540 A/C Unit #1 Alarm	$560.00		
96362	03/11/2020	ACCO ENGINEERED SYSTEMS	Inv# 1823207	Building 540 A/C Unit #1 Alarm	$40.00		
96362	03/11/2020	ACCO ENGINEERED SYSTEMS	Inv# 1823207	Building 540 A/C Unit #1 Alarm	$15.00		
96362	03/11/2020	ACCO ENGINEERED SYSTEMS	Inv# 1823207	Building 540 A/C Unit #1 Alarm	$5.44		
	Total for Check:	96362				$1,240.83	$101,973.23
96363	03/11/2020	ACCUSTANDARD, INC.	Inv# 914125	LABORATORY SUPPLIES	$88.00		
96363	03/11/2020	ACCUSTANDARD, INC.	Inv# 914125	shipping	$11.12		
96363	03/11/2020	ACCUSTANDARD, INC.	Inv# 914125	handling	$7.00		
	Total for Check:	96363				$106.12	$14,576.37
96364	03/11/2020	ACWA/JPIA	Inv# 0641255 MARCH2020 March2020	HealthInsurance	$438,595.10		
	Total for Check:	96364				$438,595.10	$3,936,732.04
96365	03/11/2020	AFFINITY PAINTING COMPANY INC	Inv# 1905036-101	Paint the GAP Clearwell blue p	$3,338.90		
96365	03/11/2020	AFFINITY PAINTING COMPANY INC	Inv# 1905036-101 #2	Paint Building L, annex buildi	$11,993.00		
96365	03/11/2020	AFFINITY PAINTING COMPANY INC	Inv# 1905036-101 #3	Painting of the CIP Chemical C	$5,533.00		
	Total for Check:	96365				$20,864.90	$61,281.00
96366	03/11/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1DQ1-DHWY-1MX3	LABEL PRINTER/MONITOR	$598.11		
96366	03/11/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1DQ1-DHWY-1MX3	LABEL PRINTER/MONITOR	$180.79		
96366	03/11/2020	AMAZON CAPITAL SERVICES, INC	Inv# 1DQ1-DHWY-1MX3	other	$5.00		
	Total for Check:	96366				$783.90	$3,448.27
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 1451186024	UNIFORM SERVICES	$34.93		

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Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 22155938	UNIFORM JACKET	$130.39		
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 534956775	UNIFORM SERVICES	$7.92		
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 534956776	UNIFORM SERVICES	$207.00		
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 534956776	UNIFORM SERVICES	$41.62		
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 534956777	UNIFORM SERVICES	$152.87		
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 534956778	UNIFORM SERVICES	$247.54		
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 534956778	UNIFORM SERVICES	$3.69		
96367	03/11/2020	ARAMARK UNIFORM SERVICES	Inv# 534956779	UNIFORM SERVICES	$192.28		
	Total for Check:	96367				$1,018.24	$33,409.10
96368	03/11/2020	AT & T	Inv# 714 630-4323 663 1MAR20	3/4-4/3/20	$1,445.28		
	Total for Check:	96368				$1,445.28	$33,659.57
96369	03/11/2020	AT & T	Inv# 714 630-3232 447 1MAR20	3/4-4/3/20	$343.59		
	Total for Check:	96369				$343.59	$33,659.57
96370	03/11/2020	B & M LAWN & GARDEN CENTER	Inv# 432533	BPO LANDSCAPE SUPPLIES	$15.96		
	Total for Check:	96370				$15.96	$4,279.47
96371	03/11/2020	BEAR COMMUNICATIONS INC.	Inv# 4980537	Purchase new handheld radios	$25,446.96		
96371	03/11/2020	BEAR COMMUNICATIONS INC.	Inv# 4980537	Purchase new handheld radios	$8,368.15		
96371	03/11/2020	BEAR COMMUNICATIONS INC.	Inv# 4980537	Purchase new handheld radios	$3,887.81		
96371	03/11/2020	BEAR COMMUNICATIONS INC.	Inv# 4980537	Purchase new handheld radios	$2,718.70		
96371	03/11/2020	BEAR COMMUNICATIONS INC.	Inv# 4980537	Purchase new handheld radios	$1,304.84		
96371	03/11/2020	BEAR COMMUNICATIONS INC.	Inv# 4980537	Purchase new handheld radios	$958.36		
96371	03/11/2020	BEAR COMMUNICATIONS INC.	Inv# 4980537	shipping&handling	$217.50		
	Total for Check:	96371				$42,902.32	$43,054.57
96372	03/11/2020	BRENNTAG PACIFIC INC.	Inv# BPI29517	3/3 22.53 tons citric acid	$20,826.18		
96372	03/11/2020	BRENNTAG PACIFIC INC.	Inv# BPI29517	discount	($624.79)		
96372	03/11/2020	BRENNTAG PACIFIC INC.	Inv# BPI29718	3/2 12.1494 tons caustic soda	$7,795.36		
96372	03/11/2020	BRENNTAG PACIFIC INC.	Inv# BPI29718	Discount	($155.91)		
	Total for Check:	96372				$27,840.84	$914,065.89
96373	03/11/2020	BUSH & ASSOCIATES INC.	Inv# FEBRUARY 14, 2020	1/30-2/13 wo#3 Mid-Basin	$8,208.00		
	Total for Check:	96373				$8,208.00	$23,870.00
96374	03/11/2020	CDW GOVERNMENT, INC	Inv# WTK9238	REPLACEMENT IPAD CASE	$488.45		
96374	03/11/2020	CDW GOVERNMENT, INC	Inv# WTK9238	REPLACEMENT IPAD CASE	$81.44		

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96374	03/11/2020	CDW GOVERNMENT, INC	Inv# WTK9238	REPLACEMENT IPAD CASE	$4.00		
96374	03/11/2020	CDW GOVERNMENT, INC	Inv# WTK9238	shipping	$0.06		
	Total for Check:	96374				$573.95	$12,557.07
96375	03/11/2020	CITY OF ORANGE	Inv# 00030145-00JAN20	12/17-2/24/20 204 units	$130.44		
96375	03/11/2020	CITY OF ORANGE	Inv# 00038354-00JAN20	12/17-2/24/20 3109 units	$127.24		
	Total for Check:	96375				$257.68	$4,296.59
96376	03/11/2020	CLEARTEC PACKAGING	Inv# 733136-733137	CWEF - PLASTIC TUBES	$716.12		
96376	03/11/2020	CLEARTEC PACKAGING	Inv# 733136-733137	freight	$334.56		
96376	03/11/2020	CLEARTEC PACKAGING	Inv# 733136-733137	CWEF - PLASTIC TUBES	$61.40		
	Total for Check:	96376				$1,112.08	$1,112.08
96377	03/11/2020	COMMERCIAL DOOR OF ORANGE CO.	Inv# 24553	ROTP Station Roll Up Door Repa	$438.37		
	Total for Check:	96377				$438.37	$16,668.37
96378	03/11/2020	CONTROLLED MOTION SOLUTIONS	Inv# 01287134	Parker Solenoid Valve	$1,101.40		
96378	03/11/2020	CONTROLLED MOTION SOLUTIONS	Inv# 01287134	freight	$33.61		
	Total for Check:	96378				$1,135.01	$1,577.33
96379	03/11/2020	COUNTY OF ORANGE	Inv# ENCROACH.PERMIT FEE Permit/YorbaReg.Park/Fairmont		$200.00		
	Total for Check:	96379				$200.00	$200.00
96380	03/11/2020	CPI INTERNATIONAL	Inv# 20046607	LABORATORY SUPPLIES	$84.83		
96380	03/11/2020	CPI INTERNATIONAL	Inv# 20046607	LABORATORY SUPPLIES	$84.82		
96380	03/11/2020	CPI INTERNATIONAL	Inv# 20046607	DISCOUNT	($3.39)		
	Total for Check:	96380				$166.26	$3,646.02
96381	03/11/2020	DC FROST ASSOCIATES, INC.	Inv# 41382	Generated by reorder 2/4/20 10	$46,108.25		
96381	03/11/2020	DC FROST ASSOCIATES, INC.	Inv# 41382	freight	$393.84		
	Total for Check:	96381				$46,502.09	$614,344.83
96382	03/11/2020	Davidson, Scott	Inv# 1/17-2/16/20 STIPEND	1/17-2/16/20 phone stipend	$40.00		
96382	03/11/2020	Davidson, Scott	Inv# 12/17/19-1/16/20 STIPEND phone stipend	12/17/19-1/16/20	$40.00		
	Total for Check:	96382				$80.00	$400.00
96383	03/11/2020	Dunkin, Alicia	Inv# 1/24/20 TRAVEL-2	1/24 SACTO ACWA SLC	$52.47		
96383	03/11/2020	Dunkin, Alicia	Inv# 1/27/20 TRAVEL	1/27 SACTO CMUA 2020	$309.59		

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Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96383	03/11/2020	Dunkin, Alicia	Inv# 2/21/20 TRAVEL-2	2/21 SACTO ACWA SLC	$136.30		
96383	03/11/2020	Dunkin, Alicia	Inv# 2/25-27/20 TRAVEL-2 Conferenc	2/25-27 D.C. ACWA DC	$1,602.09		
96383	03/11/2020	Dunkin, Alicia	Inv# 3/2/20 TRAVEL Wrks	3/2 SACTO ACWA Water Bond	$530.63		
	Total for Check:	96383				$2,631.08	$7,070.31
96384	03/11/2020	ENDRESS + HAUSER, INC.	Inv# 6002126781	ZPFMP4-A E&H Isolation tie dow	$181.92		
96384	03/11/2020	ENDRESS + HAUSER, INC.	Inv# 6002126781	shipping&handling	$12.00		
	Total for Check:	96384				$193.92	$17,869.61
96385	03/11/2020	ENVIRONMENTAL RESOURCE ASSOCIATES	Inv# 927568	SUPPLIES	$80.26		
96385	03/11/2020	ENVIRONMENTAL RESOURCE ASSOCIATES	Inv# 927568	freight	$15.30		
96385	03/11/2020	ENVIRONMENTAL RESOURCE ASSOCIATES	Inv# 927568	handling	$10.88		
	Total for Check:	96385				$106.44	$23,900.90
96386	03/11/2020	ENVIRONMENTAL SCIENCE ASSOCIATES	Inv# 152404 WO#7	Jan20 wo#7 CEQA consulting	$540.00		
96386	03/11/2020	ENVIRONMENTAL SCIENCE ASSOCIATES	Inv# 152404 WO#9	Jan20 wo#9 GWRSFE archaeo	$2,955.00		
	Total for Check:	96386				$3,495.00	$7,454.74
96387	03/11/2020	EUROFINS CALSCIENCE, LLC	Inv# 4400033512 ANALYSES	BPO FOR WATER QUALITY	$177.50		
96387	03/11/2020	EUROFINS CALSCIENCE, LLC	Inv# 4400033513 ANALYSES	BPO FOR WATER QUALITY	$110.00		
96387	03/11/2020	EUROFINS CALSCIENCE, LLC	Inv# 4400033516 ANALYSES	BPO FOR WATER QUALITY	$82.50		
96387	03/11/2020	EUROFINS CALSCIENCE, LLC	Inv# 4400033673 ANALYSES	BPO FOR WATER QUALITY	$710.00		
	Total for Check:	96387				$1,080.00	$2,020.00
96388	03/11/2020	EWASTE DISPOSAL, INC	Inv# 1778	Emergency Asbestos Work GWRS	$11,201.49		
	Total for Check:	96388				$11,201.49	$11,201.49
96389	03/11/2020	FACTORY MOTOR PARTS	Inv# 101-286062	CoreCredit	($333.00)		
96389	03/11/2020	FACTORY MOTOR PARTS	Inv# 101-290976	BPO AUTO PARTS	$25.57		
96389	03/11/2020	FACTORY MOTOR PARTS	Inv# 101-291919	BPO AUTO PARTS	$121.76		
96389	03/11/2020	FACTORY MOTOR PARTS	Inv# 101-291919	Battery Fee	$1.00		

Orange County Water District

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96389	03/11/2020	FACTORY MOTOR PARTS	Inv# 101-295467	BPO AUTO PARTS	$79.94		
96389	03/11/2020	FACTORY MOTOR PARTS	Inv# 12-3391585	BPO AUTO PARTS	$27.18		
96389	03/11/2020	FACTORY MOTOR PARTS	Inv# 12-34050589	BPO AUTO PARTS	$205.15		
	Total for Check:	96389				$127.60	$8,994.86
96390	03/11/2020	FIRELINE BROADBAND	Inv# 66645	Internet Service for Prado	$825.00		
	Total for Check:	96390				$825.00	$6,669.00
96391	03/11/2020	FISHER SCIENTIFIC CO.	Inv# 0129781	SUPPLIES	$65.13		
96391	03/11/2020	FISHER SCIENTIFIC CO.	Inv# 0129781	Shipping-fuel surcharge	$4.45		
96391	03/11/2020	FISHER SCIENTIFIC CO.	Inv# 0870131	SUPPLIES	$21.88		
96391	03/11/2020	FISHER SCIENTIFIC CO.	Inv# 0870132	LABORATORY SUPPLIES	$149.90		
	Total for Check:	96391				$241.36	$181,682.97
96392	03/11/2020	FRONTIER COMMUNICATIONS	Inv# 714-964-1492MAR20	2/28-3/27/20	$56.65		
	Total for Check:	96392				$56.65	$31,880.12
96393	03/11/2020	FRONTIER COMMUNICATIONS	Inv# 714-378-3200MAR20	2/28-3/27/20	$2,416.36		
	Total for Check:	96393				$2,416.36	$31,880.12
96394	03/11/2020	FRUIT GROWERS LABORATORY INC	Inv# 916554A	BPO RADIOACTIVITY ANALYSIS	$974.00		
96394	03/11/2020	FRUIT GROWERS LABORATORY INC	Inv# 916557A	BPO RADIOACTIVITY ANALYSIS	$546.00		
96394	03/11/2020	FRUIT GROWERS LABORATORY INC	Inv# 916557A	BPO RADIOACTIVITY ANALYSIS	$428.00		
	Total for Check:	96394				$1,948.00	$31,432.00
96396	03/11/2020	GEIGER	Inv# 4140888	OCWD LABELS	$154.98		
96396	03/11/2020	GEIGER	Inv# 4140888	S & H	$15.69		
96396	03/11/2020	GEIGER	Inv# 4140888	discount	($1.71)		
96396	03/11/2020	GEIGER	Inv# 4141901	S&H	$78.55		
96396	03/11/2020	GEIGER	Inv# 4141901	OCWD SHIRTS FOR EVENTS	$73.90		
96396	03/11/2020	GEIGER	Inv# 4141901	OCWD SHIRTS FOR EVENTS	$73.90		
96396	03/11/2020	GEIGER	Inv# 4141901	OCWD SHIRTS FOR EVENTS	$73.89		
96396	03/11/2020	GEIGER	Inv# 4141901	OCWD SHIRTS FOR EVENTS	$73.89		
96396	03/11/2020	GEIGER	Inv# 4141901	OCWD SHIRTS FOR EVENTS	$60.90		
96396	03/11/2020	GEIGER	Inv# 4141901	OCWD SHIRTS FOR EVENTS	$52.86		
96396	03/11/2020	GEIGER	Inv# 4141901	Discount	($4.88)		

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Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
Total for Check:	96396					$651.97	$33,632.71
96398	03/11/2020	GRAINGER INC.	Inv# 9424962703	BPO INDUSTRIAL SUPPLIES	$152.24		
96398	03/11/2020	GRAINGER INC.	Inv# 9424978170	BPO INDUSTRIAL SUPPLIES	$22.56		
96398	03/11/2020	GRAINGER INC.	Inv# 9426527165	BPO INDUSTRIAL SUPPLIES	$60.74		
96398	03/11/2020	GRAINGER INC.	Inv# 9427689139	BPO INDUSTRIAL SUPPLIES	$113.47		
96398	03/11/2020	GRAINGER INC.	Inv# 9427841391	BPO INDUSTRIAL SUPPLIES	$128.09		
96398	03/11/2020	GRAINGER INC.	Inv# 9428747944	Generated by reorder 1/22/20 1	$37.83		
96398	03/11/2020	GRAINGER INC.	Inv# 9429043541	Generated by reorder 1/22/20 1	$86.12		
96398	03/11/2020	GRAINGER INC.	Inv# 9429365381	1/2" Nylon Tubing for RO Test	$295.59		
96398	03/11/2020	GRAINGER INC.	Inv# 9429365381	1/2" Nylon Tubing for RO Test	$92.83		
96398	03/11/2020	GRAINGER INC.	Inv# 9452688683	CreditPO507938Line5	($14.09)		
96398	03/11/2020	GRAINGER INC.	Inv# 9452688691	CreditPO508016Line8	($10.34)		
Total for Check:	96398					$965.04	$104,274.20
96399	03/11/2020	HACH COMPANY	Inv# 11834706	SUPPLIES	$48.82		
96399	03/11/2020	HACH COMPANY	Inv# 11834706	freight	$13.04		
96399	03/11/2020	HACH COMPANY	Inv# 11834818	HACH Service ICE-PIC 1 NTU CVD	$349.18		
96399	03/11/2020	HACH COMPANY	Inv# 11839323	SUPPLIES	$712.33		
96399	03/11/2020	HACH COMPANY	Inv# 11839323	freight	$63.91		
Total for Check:	96399					$1,187.28	$97,174.34
96400	03/11/2020	HARRINGTON INDUSTRIAL PLASTICS	Inv# 002N6893	BPO PLASTIC PARTS & FITTINGS	$337.14		
96400	03/11/2020	HARRINGTON INDUSTRIAL PLASTICS	Inv# 002N6893	Discount	($6.74)		
Total for Check:	96400					$330.40	$3,140.23
96401	03/11/2020	HB DIGITAL ARTS & BLUEPRINT	Inv# INV-79205	CONTUR MAP POSTERS	$323.25		
Total for Check:	96401					$323.25	$802.74
96402	03/11/2020	HERON INSTRUMENTS INC	Inv# 23348	Replacement Water Level Tape	$457.00		
96402	03/11/2020	HERON INSTRUMENTS INC	Inv# 23348	Replacement Water Level Tape	$30.00		
Total for Check:	96402					$487.00	$487.00
96403	03/11/2020	HOLLAND & KNIGHT LLP	Inv# 5967669	Jan20 legis.support/D.C.	$7,500.00		
Total for Check:	96403					$7,500.00	$67,500.00
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 933201-1	BPO PIPE & SUPPLIES	$39.69		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 933201-1	Shipping	$8.80		

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96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 933201-1	Discount	($0.97)		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 933677-1	BPO PIPE & SUPPLIES	$37.51		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 933677-1	Discount	($0.75)		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 934501	BPO PIPE & SUPPLIES	$35.05		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 934501	Discount	($0.70)		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 934520	Generated by reorder 2/21/20 3	$923.16		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 934520	freight	$87.00		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 934520	discount	($20.20)		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 934879	BPO PIPE & SUPPLIES	$45.80		
96405	03/11/2020	IRVINE PIPE & SUPPLY	Inv# 934879	discount	($0.92)		
	Total for Check:	96405				$1,153.47	$76,936.76
96406	03/11/2020	KW COMMUNICATIONS	Inv# OCWD1021-20	Feb20 GWRS tour/outreach	$3,372.50		
	Total for Check:	96406				$3,372.50	$58,439.25
96407	03/11/2020	LHOIST NORTH AMERICA	Inv# 1102004266	2/11 25.66 tons lime	$6,081.42		
96407	03/11/2020	LHOIST NORTH AMERICA	Inv# 1102004539A	2/13 25.57 tons lime	$6,060.09		
96407	03/11/2020	LHOIST NORTH AMERICA	Inv# 1102004539B	2/16 25.86 tons lime	$6,128.82		
	Total for Check:	96407				$18,270.33	$619,359.24
96408	03/11/2020	LONG BEACH WATER DEPARTMENT	Inv# 6378	Jan20 Alamitos 155.4 af@$1,083	$186,052.20		
96408	03/11/2020	LONG BEACH WATER DEPARTMENT	Inv# 6397	Jul-Aug19 LBWD Capacity Charge	$15,130.10		
	Total for Check:	96408				$201,182.30	$1,810,719.69
96409	03/11/2020	LUCCI'S DELI BAKERY	Inv# 12948RETCTE	BPO CATERING	$105.00		
96409	03/11/2020	LUCCI'S DELI BAKERY	Inv# 12948RETCTE	delivery	$20.00		
	Total for Check:	96409				$125.00	$9,083.73
96410	03/11/2020	MAIL DELIVERY SERVICE CO.	Inv# 18387	BPO MAIL DELIVERY	$315.50		
96410	03/11/2020	MAIL DELIVERY SERVICE CO.	Inv# 18387	BPO MAIL DELIVERY	$48.29		
96410	03/11/2020	MAIL DELIVERY SERVICE CO.	Inv# 18387	BPO MAIL DELIVERY	$3.71		
	Total for Check:	96410				$367.50	$3,351.60
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403787/5	BPO INDUSTRIAL SUPPLIES	$37.17		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403787/5	Discount	($1.04)		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403857/5	BPO INDUSTRIAL SUPPLIES	$13.90		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403857/5	Discount	($0.39)		

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96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403935/5	BPO INDUSTRIAL SUPPLIES	$203.22		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403935/5	Discount	($5.66)		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403978/5	BPO INDUSTRIAL SUPPLIES	$96.30		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 403978/5	discounts	($2.68)		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 404166/5	BPO INDUSTRIAL SUPPLIES	$70.91		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 404166/5	Discount	($1.97)		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 481932/1	BPO INDUSTRIAL SUPPLIES	$21.71		
96412	03/11/2020	MCFADDEN-DALE HARDWARE CO.	Inv# 481932/1	Discount	($0.60)		
	Total for Check:	96412				$430.87	$4,566.27
96413	03/11/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35828778	BPO INDUSTRIAL SUPPLIES	$152.11		
96413	03/11/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35828778	Shipping	$6.12		
96413	03/11/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35828778	Discount	($3.04)		
96413	03/11/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35890570	BPO INDUSTRIAL SUPPLIES	$137.55		
96413	03/11/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35890570	Shipping	$5.67		
96413	03/11/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 35890570	Discount	($2.75)		
96413	03/11/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 36047451	BPO INDUSTRIAL SUPPLIES	$236.65		
96413	03/11/2020	MCMASTER-CARR SUPPLY COMPANY	Inv# 36047451	Discount	($4.61)		
	Total for Check:	96413				$527.70	$29,533.27
96414	03/11/2020	MUNICIPAL WATER DISTRICT OF OC	Inv# 10091A	January 2020 water purchase	$617,329.50		
96414	03/11/2020	MUNICIPAL WATER DISTRICT OF OC	Inv# 10091B	January 2020 water purchases	$3,850.50		
96414	03/11/2020	MUNICIPAL WATER DISTRICT OF OC	Inv# 10091C	January 2020 water purchases	$326,421.44		
96414	03/11/2020	MUNICIPAL WATER DISTRICT OF OC	Inv# 10091D	January 2020 water purchases	$85,248.25		
	Total for Check:	96414				$1,032,849.69	$23,883,537.39

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96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 508568	BPO AUTO PARTS & SUPPLIES	$17.72		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 508568	discount	($0.35)		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 508999	BPO AUTO PARTS & SUPPLIES	$152.23		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 508999	Discount	($3.04)		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 509001	BPO AUTO PARTS & SUPPLIES	$41.28		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 509001	Discount	($0.83)		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 509052	BPO AUTO PARTS & SUPPLIES	$28.83		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 509052	Discount	($0.58)		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 509090	BPO AUTO PARTS & SUPPLIES	$71.02		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 509090	Discount	($1.42)		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 509166	BPO AUTO PARTS & SUPPLIES	$36.09		
96416	03/11/2020	NAPA/ORANGE COUNTY AUTO PARTS	Inv# 509166	Discount	($0.72)		
	Total for Check:	96416				$340.23	$5,877.79
96417	03/11/2020	NEW LINE FIRE	Inv# 02042020-01	New Line Fire Annual Maintenan	$425.00		
96417	03/11/2020	NEW LINE FIRE	Inv# 02042020-01	New Line Fire Annual Maintenan	$369.75		
96417	03/11/2020	NEW LINE FIRE	Inv# 02042020-01	New Line Fire Annual Maintenan	$255.00		
96417	03/11/2020	NEW LINE FIRE	Inv# 02042020-01	New Line Fire Annual Maintenan	$170.00		
96417	03/11/2020	NEW LINE FIRE	Inv# 02042020-01	New Line Fire Annual Maintenan	$85.00		
	Total for Check:	96417				$1,304.75	$8,073.37
96418	03/11/2020	Nunez, Ernest	Inv# 2/4-25/20 PYTHON TRAINING training	2/4-25 Python	$95.70		
	Total for Check:	96418				$95.70	$95.70
96419	03/11/2020	O'Toole, Kevin	Inv# 2/27-28/20 TRAVEL	2/27-28 Las Vegas, NV MSSC	$68.12		
	Total for Check:	96419				$68.12	$68.12

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Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2791466	2/10 4504 gal s.hypochlorite	$3,197.84		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2791467	2/10 4926 gal s.hypochlorite	$3,497.46		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2791468	2/10 4904 gal s.hypochlorite	$3,481.84		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2791469	2/10 4902 gal s.hypochlorite	$3,480.42		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2791992	2/11 4970 gal s.hypochlorite	$3,528.70		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2791993	2/11 4622 gal s.hypochlorite	$3,281.62		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2791994	2/11 4848 gal s.hypochlorite	$3,442.08		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2791995	2/11 4958 gal s.hypochlorite	$3,520.18		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2792906	2/13 4874 gal s.hypochlorite	$3,460.54		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2792907	2/13 4926 gal s.hypochloriteq	$3,497.46		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2792908	2/13 4894 gal s.hypochlorite	$3,474.74		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2792909	2/13 4786 gal s.hypochlorite	$3,398.06		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2793507	2/14 4342 gal s.hypochlorite	$3,082.82		
96421	03/11/2020	OLIN CHLOR ALKALI PRODUCTS AND VINYLS	Inv# 2793508	2/14 4900 gal s.hypochlorite	$3,479.00		
	Total for Check:	96421				$47,822.76	$1,645,214.77
96422	03/11/2020	ORANGE COUNTY CONSERVATION CORPS	Inv# 01102020-OCWDADOPT-030220	Jan20 graffit-trash removal	$1,690.83		
	Total for Check:	96422				$1,690.83	$17,923.29
96423	03/11/2020	ORANGE COUNTY MONSTER CARTS INC.	Inv# 24172	RO: G-4 GOLF CART REPAIR	$127.50		
	Total for Check:	96423				$127.50	$127.50
96424	03/11/2020	PACIFIC OFFICE AUTOMATION	Inv# 580136	BPO KONICA SERVICE	$438.06		
96424	03/11/2020	PACIFIC OFFICE AUTOMATION	Inv# 580136	BPO KONICA SERVICE	$110.87		

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	Total for Check:	96424				$548.93	$4,438.88
96425	03/11/2020	PERKINELMER HEALTH SCIENCES INC.	Inv# 5304469940	LABORATORY SUPPLIES	$44.59		
96425	03/11/2020	PERKINELMER HEALTH SCIENCES INC.	Inv# 5304469940	freight	$6.49		
	Total for Check:	96425				$51.08	$573.05
96426	03/11/2020	PERMA-PIPE	Inv# PA22750	PermAlert PA-10 Probe Adapter	$565.50		
96426	03/11/2020	PERMA-PIPE	Inv# PA22750	Freight	$14.36		
	Total for Check:	96426				$579.86	$579.86
96427	03/11/2020	PHENOVA INC	Inv# 157674	LABORATORY SUPPLIES	$217.50		
96427	03/11/2020	PHENOVA INC	Inv# 157674	Freight	$30.05		
96427	03/11/2020	PHENOVA INC	Inv# 157674	Handling	$8.00		
	Total for Check:	96427				$255.55	$2,240.67
96428	03/11/2020	PROCARE WORK INJURY CENTER	Inv# 287316	BPO MEDICAL SERIVCES	$275.00		
	Total for Check:	96428				$275.00	$1,915.00
96429	03/11/2020	PROCESS CONSTRUCTION SERVICES	Inv# 0000778	12" SS Tee Fabrication at RO C	$8,723.00		
	Total for Check:	96429				$8,723.00	$8,723.00
96430	03/11/2020	QUINN COMPANY	Inv# PC830379446	BPO EQUIPMENT & SUPPLIES	$472.63		
96430	03/11/2020	QUINN COMPANY	Inv# PC830379446	battery fee	$2.16		
	Total for Check:	96430				$474.79	$1,310,327.53
96431	03/11/2020	RAINBOW DISPOSAL CO INC	Inv# 0605-000671892 SERVICE	03/01-03/31/20 TRASH	$4,485.88		
	Total for Check:	96431				$4,485.88	$39,751.58
96432	03/11/2020	ROSEMOUNT ANALYTICAL INC.	Inv# 919991	Generated by reorder 2/24/20 1	$3,936.75		
96432	03/11/2020	ROSEMOUNT ANALYTICAL INC.	Inv# 919991	FREIGHT&HANDLING	$16.57		
96432	03/11/2020	ROSEMOUNT ANALYTICAL INC.	Inv# 919991	DISCOUNT	($39.53)		
	Total for Check:	96432				$3,913.79	$32,670.26
96433	03/11/2020	RW JONES AGENCY	Inv# 6594	Feb20 PFAS outreach	$7,157.50		
	Total for Check:	96433				$7,157.50	$64,199.70
96434	03/11/2020	SANDWOOD ENTERPRISES INC.	Inv# OC 20 1901171	ADD TO BPO	$1,024.00		
96434	03/11/2020	SANDWOOD ENTERPRISES INC.	Inv# OC 20 1901172	ADD TO BPO	$1,024.00		
	Total for Check:	96434				$2,048.00	$31,424.00

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96435	03/11/2020	SANTA ANA WATERSHED ASSOCIATION	Inv# 2020-03	NATURAL RESOURCE SERV.	$2,846.97		
96435	03/11/2020	SANTA ANA WATERSHED ASSOCIATION	Inv# 2020-09	CONDUCT ARUNDO REMOVAL WORK	$56,979.24		
	Total for Check:	96435				$59,826.21	$544,376.29
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$829.30		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$632.37		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$278.23		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$265.78		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$264.01		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$243.31		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$227.72		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$180.13		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$106.16		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$57.62		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$37.52		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$1.44		
96437	03/11/2020	SC FUELS	Inv# 0204905	BPO UNLEADED FUEL FOR VEHICLES	$1.30		
	Total for Check:	96437				$3,124.89	$49,630.70
96438	03/11/2020	SMART & FINAL	Inv# 50002	BPO FOOD & SUPPLIES	$67.03		
	Total for Check:	96438				$67.03	$763.79
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-000-2056-42FEB20	1/29-2/28/20 4614KWH	$1,610.84		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-001-3969-92FEB20	1/3-2/3/20 54KWH	$15.82		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-001-3969-93FEB20	1/29-2/28/20 0KWH	$11.34		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-001-3969-94FEB20	1/29-2/28/20 606KWH	$114.03		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-003-7100-85FEB20	2/3-3/4/20 257657KWH	$35,084.37		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-005-6085-64FEB20	1/29-2/28/20 75KKWH	$17.44		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-012-1700-45FEB20	1/31-3/3/20 244KWH	$34.01		

Orange County Water District

Check Register

Begin Date: 03/05/2020 **End Date:** 03/11/2020

Accounts Payable Check Register Presented for Board Ratification and/or Approval

Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-013-4094-34FEB20	2/4-3/5/20 3292KWH	$527.10		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-015-7214-86FEB20	2/1-3/1/20	$3,432.00		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-017-8551-74FEB20	1/32-2/21/20 794KWH	$489.31		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-018-4099-58FEB20	2/4-3/5/20 255KWH	$46.47		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-023-7877-22FEB20	1/28-2/27/20 444KWH	$64.32		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-023-7877-42FEB20	1/28-2/27/20 206KWH	$41.48		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-024-0896-29FEB20	2/1-3/1/20	$8,106.95		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-026-3567-06FEB20	1/28-2/27/20 2771KWH	$340.83		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-029-4040-48FEB20	1/29-2/28/20 267KWH	$51.57		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-029-4040-50FEB20	1/29-2/28/20 206KWH	$40.93		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-033-1467-28FEB20	1/31-3/3/20 3702KWH	$682.13		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 3-047-1053-09FEB20	2/4-3/5/20 22273KWH	$2,227.09		
96440	03/11/2020	SOUTHERN CALIFORNIA EDISON CO.	Inv# 7701013601	4/1/2020-3-31/2021_oper_rent	$1,165.00		
	Total for Check:	96440				$54,103.03	$4,972,858.87
96441	03/11/2020	SOUTHERN COUNTIES LUBRICANTS, LLC	Inv# 115415	Generated by reorder 10/23/19	$200.85		
	Total for Check:	96441				$200.85	$447.58
96442	03/11/2020	SPARKLETTS DS WATER OF AMERICA LP	Inv# 4076005 021520	NEW BPO FOR FY19/20	$101.40		
96442	03/11/2020	SPARKLETTS DS WATER OF AMERICA LP	Inv# 4076005 021520	NEW BPO FOR FY19/20	$32.24		
96442	03/11/2020	SPARKLETTS DS WATER OF AMERICA LP	Inv# 4076005 021520	NEW BPO FOR FY19/20	$21.84		
96442	03/11/2020	SPARKLETTS DS WATER OF AMERICA LP	Inv# 6144555 022120	NEW BPO FOR FY19/20	$11.00		

Orange County Water District

Check Register

Begin Date: 03/05/2020 **End Date:** 03/11/2020

Accounts Payable Check Register Presented for Board Ratification and/or Approval

Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
	Total for Check:	96442				$166.48	$6,846.23
96443	03/11/2020	SUPERIOR SWEEPING LTD.	Inv# 377-0220	February STREET SWEEPING	$450.00		
	Total for Check:	96443				$450.00	$4,050.00
96444	03/11/2020	Smith, Benjamin	Inv# 1/27-2/26/20 STIPEND	1/27-2/26/20 phone stipend	$40.00		
96444	03/11/2020	Smith, Benjamin	Inv# 2/3/20 GWRS PERMIT permit	2/3/20 OCFCD GWRS	$154.50		
	Total for Check:	96444				$194.50	$2,075.15
96445	03/11/2020	TETRA TECH, INC.	Inv# 51554421	Thru 1/24 MNWD grndwtr.storage	$610.00		
96445	03/11/2020	TETRA TECH, INC.	Inv# 51555133	Thru 1/24 Mid Basin-Cent.park	$2,530.00		
	Total for Check:	96445				$3,140.00	$185,252.25
96446	03/11/2020	SoCalGas	Inv# 044 409 2900 0FEB20	2/3-3/4/20 747 THERMS	$460.80		
96446	03/11/2020	SoCalGas	Inv# 050 709 2900 4FEB20	2/3-3/4/20 483 THERMS	$479.03		
96446	03/11/2020	SoCalGas	Inv# 113 758 3304 0FEB20	2/3-3/4/20 5504 THERMS	$4,059.60		
	Total for Check:	96446				$4,999.43	$39,578.40
96447	03/11/2020	TIME WARNER COMMUNICATIONS	Inv# 0400190030420	Internet Services for OCWD	$1,349.00		
	Total for Check:	96447				$1,349.00	$21,123.95
96448	03/11/2020	TORONTO RESEARCH CHEMICALS, INC.	Inv# 332589	LABORATORY SUPPLIES	$280.00		
96448	03/11/2020	TORONTO RESEARCH CHEMICALS, INC.	Inv# 332589	shipping	$49.00		
	Total for Check:	96448				$329.00	$2,711.00
96449	03/11/2020	TRUCPARCO	Inv# 428848	BPO TRUCK PARTS	$122.30		
	Total for Check:	96449				$122.30	$3,340.72
96450	03/11/2020	TRUSSELL TECHNOLOGIES INC.	Inv# 0000007127 REVISED Mussel evalua	Dec19 MWD Quagga	$25,009.07		
	Total for Check:	96450				$25,009.07	$124,578.65
96452	03/11/2020	U-LINE	Inv# 116870998	CWEF - TARPS	$28.27		
96452	03/11/2020	U-LINE	Inv# 116870998	freight	$1.50		
96452	03/11/2020	U-LINE	Inv# 116888701	Storage drums for MBI Inj well	$330.60		
96452	03/11/2020	U-LINE	Inv# 116888701	freight	$99.81		
96452	03/11/2020	U-LINE	Inv# 117037563	CARBON PROCESSING EQUIPMENT	$219.68		
96452	03/11/2020	U-LINE	Inv# 117037563	CARBON PROCESSING EQUIPMENT	$102.23		
96452	03/11/2020	U-LINE	Inv# 117037563	FREIGHT	$97.46		
96452	03/11/2020	U-LINE	Inv# 117037563	CARBON PROCESSING EQUIPMENT	$75.03		

Orange County Water District

Check Register

Begin Date: 03/05/2020 **End Date:** 03/11/2020

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Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96452	03/11/2020	U-LINE	Inv# 117037563	CARBON PROCESSING EQUIPMENT	$50.02		
96452	03/11/2020	U-LINE	Inv# 117037563	CARBON PROCESSING EQUIPMENT	$28.28		
96452	03/11/2020	U-LINE	Inv# 117168107	CARBON PROCESSING EQUIPMENT	$557.89		
	Total for Check:	96452				$1,590.77	$9,610.87
96453	03/11/2020	UCT LLC	Inv# IN006606	LABORATORY SUPPLIES	$728.63		
	Total for Check:	96453				$728.63	$16,346.76
96454	03/11/2020	UNITED PARCEL SERVICE	Inv# 0000X81601090	ups	$23.84		
96454	03/11/2020	UNITED PARCEL SERVICE	Inv# 0000X81601080	ups	$32.48		
	Total for Check:	96454				$56.32	$1,543.90
96455	03/11/2020	UNIVAR USA	Inv# AI553390	HERBICIDE FOR WEEDS	$905.00		
96455	03/11/2020	UNIVAR USA	Inv# AI553390	HERBICIDE FOR WEEDS	$430.89		
96455	03/11/2020	UNIVAR USA	Inv# AI553390	HERBICIDE FOR WEEDS	$322.17		
96455	03/11/2020	UNIVAR USA	Inv# AI553390	HERBICIDE FOR WEEDS	$163.45		
	Total for Check:	96455				$1,821.51	$3,643.02
96456	03/11/2020	UNIVERSAL BACKGROUND SCREENING INC	Inv# 202002008258	BPO BACKGROUND CHECK	$95.79		
	Total for Check:	96456				$95.79	$3,192.21
96457	03/11/2020	UTILIQUEST LLC	Inv# 286805-Q 9908	2/2-8 screen/mark pipes	$84.53		
96457	03/11/2020	UTILIQUEST LLC	Inv# 286805-Q 9911	2/2-8 screen/mark pipes	$1,182.30		
96457	03/11/2020	UTILIQUEST LLC	Inv# 286805-Q 9922	2/2-8 screen/mark pipes	$689.68		
96457	03/11/2020	UTILIQUEST LLC	Inv# 286805-Q 9932	2/2-8 screen/mark pipes	$13.99		
	Total for Check:	96457				$1,970.50	$77,570.83
96458	03/11/2020	VIBRALIGN, INC.	Inv# SPI49842	1-1/2 days of training with Vi	$3,262.50		
	Total for Check:	96458				$3,262.50	$19,058.71
96459	03/11/2020	VOIP SUPPLY INC	Inv# SI-376846	Cisco Phone Replacement	$2,512.78		
96459	03/11/2020	VOIP SUPPLY INC	Inv# SI-376846	FREIGHT	$43.11		
	Total for Check:	96459				$2,555.89	$29,131.27
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089156791	Generated by reorder 1/27/20 9	$1,230.93		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089159989	Generated by reorder 1/27/20 9	$2,639.20		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089159989	Generated by reorder 1/27/20 9	$2,087.46		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089159989	Generated by reorder 1/27/20 9	$769.95		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089159989	Generated by reorder 1/27/20 9	$750.05		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089159989	Generated by reorder 1/27/20 9	$149.60		

Orange County Water District

Check Register

Begin Date: 03/05/2020 **End Date:** 03/11/2020

Accounts Payable Check Register Presented for Board Ratification and/or Approval

Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089159989	Generated by reorder 1/27/20 9	$145.86		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089170573	LABORATORY SUPPLIES	$208.90		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089177197	Generated by reorder 1/27/20 9	$2,327.60		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089182196	LABORATORY SUPPLIES	$31.46		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089195014	Generated by reorder 2/13/20 1	$610.87		
96461	03/11/2020	VWR INTERNATIONAL LLC	Inv# 8089195014	Generated by reorder 2/13/20 1	$482.78		
	Total for Check:	96461				$11,434.66	$86,102.37
96462	03/11/2020	WASTE MANAGEMENT INLAND EMPIRE	Inv# 0732743-0161-0	03/01-03/31/20	$166.73		
	Total for Check:	96462				$166.73	$1,500.57
96463	03/11/2020	WEST COAST ARBORISTS, INC.	Inv# 157649	TREE TRIMMING AT FIELD HQ	$3,060.00		
96463	03/11/2020	WEST COAST ARBORISTS, INC.	Inv# 157649	TREE TRIMMING AT FIELD HQ	$1,350.00		
	Total for Check:	96463				$4,410.00	$85,720.00
96464	03/11/2020	YSI INCORPORATED	Inv# 812045	Generated by reorder 12/11/19	$3,916.71		
96464	03/11/2020	YSI INCORPORATED	Inv# 812045	freight	$13.26		
96464	03/11/2020	YSI INCORPORATED	Inv# 813035	YSI BP6920 Maintenance	$538.32		
96464	03/11/2020	YSI INCORPORATED	Inv# 813035	YSI BP6920 Maintenance	$119.62		
96464	03/11/2020	YSI INCORPORATED	Inv# 813035	YSI BP6920 Maintenance	$25.00		
	Total for Check:	96464				$4,612.91	$15,341.81
977046	03/10/2020	WELLS FARGO BANK	Inv# MARCH 11, 2020 #6527 #6527	Mar.11,2020 PR#05	$55,034.18		
	Total for Check:	977046				$55,034.18	$15,885,555.05
977047	03/10/2020	WELLS FARGO BANK	Inv# MARCH 11, 2020 #6911	Mar.11,20 PR#5 #6911	$749,011.54		
	Total for Check:	977047				$749,011.54	$15,885,555.05
977048	03/10/2020	WELLS FARGO BANK	Inv# MARCH 11, 2020 GARNABF GarnABF	Mar.11,20 PR#05	$2,451.20		
	Total for Check:	977048				$2,451.20	$15,885,555.05
977049	03/11/2020	PRUDENTIAL RETIREMENT SERVICE	Inv# MARCH 11, 2020	Mar.11,2020 PR#5 401a	$207,549.48		
	Total for Check:	977049				$207,549.48	$4,120,682.78
977050	03/11/2020	PRUDENTIAL RETIREMENT	Inv# MARCH 11, 2020	Mar.11,20 Pr#5 457B	$57,146.63		
	Total for Check:	977050				$57,146.63	$1,097,192.59
Run Date:	***3/10/2020***				**$3,224,554.45**	**$3,224,554.45**	

Orange County Water District

Check Register

Begin Date: 03/05/2020 **End Date:** 03/11/2020

Accounts Payable Check Register Presented for Board Ratification and/or Approval

Check No.	Date	Vendor Name	Invoice #	Purpose	Invoice Amount	Check Amount	FYTD
802581	03/11/2020	ALTA FOODCRAFT	Inv# 52003165	BPO COFFEE SERVICE	$100.98		
802581	03/11/2020	ALTA FOODCRAFT	Inv# 52003241	BPO COFFEE SERVICE	$1,088.89		
	Total for Check:	802581				$1,189.87	$11,105.19
802582	03/11/2020	SPEX CERTIPREP, LLC	Inv# 403170	LABORATORY SUPPLIES	$96.00		
802582	03/11/2020	SPEX CERTIPREP, LLC	Inv# 403170	LABORATORY SUPPLIES	$96.00		
802582	03/11/2020	SPEX CERTIPREP, LLC	Inv# 403170	LABORATORY SUPPLIES	$48.80		
802582	03/11/2020	SPEX CERTIPREP, LLC	Inv# 403170	LABORATORY SUPPLIES	$48.80		
	Total for Check:	802582				$289.60	$4,829.91
802583	03/11/2020	WECK LABORATORIES, INC.	Inv# W0B0548-OCWD ANALYSES	BPO FOR WATER QUALITY	$100.00		
802583	03/11/2020	WECK LABORATORIES, INC.	Inv# W0B0623-OCWD ANALYSES	BPO FOR WATER QUALITY	$90.00		
802583	03/11/2020	WECK LABORATORIES, INC.	Inv# W0B0736-OCWD ANALYSES	BPO FOR WATER QUALITY	$120.00		
802583	03/11/2020	WECK LABORATORIES, INC.	Inv# W0B0842-OCWD ANALYSES	BPO FOR WATER QUALITY	$400.00		
802583	03/11/2020	WECK LABORATORIES, INC.	Inv# W0B0843-OCWD ANALYSES	BPO FOR WATER QUALITY	$400.00		
802583	03/11/2020	WECK LABORATORIES, INC.	Inv# W0B0844-OCWD ANALYSES	BPO FOR WATER QUALITY	$100.00		
	Total for Check:	802583				$1,210.00	$53,112.50
802584	03/11/2020	WESTAIR GASES & EQUIPMENT	Inv# 11008112	Lab-helium,nitrogen	$356.00		
802584	03/11/2020	WESTAIR GASES & EQUIPMENT	Inv# 11008112	freight	$31.43		
802584	03/11/2020	WESTAIR GASES & EQUIPMENT	Inv# 11008112	hazardous material	$11.31		
	Total for Check:	802584				$398.74	$52,153.08
Run Date:	***3/10/2020***				**$3,088.21**	**$3,088.21**	

MINUTES OF MEETING
BOARD OF DIRECTORS, ORANGE COUNTY WATER DISTRICT
February 5, 2020, 5:30 p.m.

President Sarmiento called to order the February 5, 2020 regular meeting of the Orange County Water District Board of Directors at 5:30 p.m. in the Boardroom at the District office. Following the Pledge of Allegiance to the Flag, the Secretary called the roll and reported a quorum as follows.

Directors		Staff
Denis Bilodeau		Michael R. Markus, General Manager
Jordan Brandman	(arrived 6:00 p.m.)	Jeremy Jungeis, General Counsel
Cathy Green	(absent)	Janice Durant, District Secretary
Dina Nguyen	(arrived 5:50 p.m.)	
Kelly Rowe		
Vicente Sarmiento		
Stephen Sheldon	(arrived 5:45 p.m.)	
Tri Ta		
Roger Yoh		
Ahmad Zahra		

VISITOR PARTICIPATION

Public comments were received under Item No. 7 on tonight's Agenda.

CONSENT CALENDAR

President Sarmiento requested the removal of Item No. 2 from the Consent Calendar. The balance of Consent Calendar was approved upon motion by Director Ta, seconded by Director Rowe and carried [6-0] as follows.
Ayes: Bilodeau, Rowe, Sarmiento, Ta, Yoh, Zahra
Absent: Brandman, Green, Nguyen, Sheldon

1. Approval of Cash Disbursements

MOTION NO. 20-11
APPROVING CASH DISBURSEMENTS

Payment of bills for the period January 16, 2020 through January 29, 2020 in the total amount of $6,775,319.55 is ratified and approved.

2. 2020 Board Committee and Outside Agency Assignments

This item was removed from tonight's Consent Calendar and considered later in tonight's meeting.

CONSENT CALENDAR ITEMS RECOMMENDED FOR APPROVAL AT PROPERTY MANAGEMENT COMMITTEE MEETING HELD JANUARY 24

3. Amendment Five to License Agreement with T.E. Roberts for Storing of Construction Equipment Located at Huckleberry Pond, Anaheim

RESOLUTION NO. 20-2-14
APPROVING AMENDMENT TO LICENSE AGREEMENT WITH T.E. ROBERTS FOR STORING CONSTRUCTION EQUIPMENT AT HUCKLEBERRY POND, ANAHEIM

WHEREAS, pursuant to Resolution No. 18-1-2 adopted January 3, 2018, as subsequently amended, OCWD issued a License Agreement to T.E. Roberts, Inc. to allow equipment storage at the District's Huckleberry Pond property in Anaheim utilizing the District's maintenance roads through January 31, 2020; and

WHEREAS, the Property Management Committee has recommended execution of Amendment Five to such License Agreement extending the expiration date to January 31, 2021, for a fee of $500 per month, with all other Agreement terms to remain the same;

NOW, THEREFORE, the Board of Directors of the Orange County Water District does hereby approve Amendment Five to such License Agreement as described herein; and, upon approval as to form by District General Counsel, its execution by the District officers is authorized.

4. Consent to Assignment of Lease from Gentry Golf, Inc., D.B.A. The Islands Golf Center Lease to NSM Golf, LLC

RESOLUTION NO. 20-2-15
APPROVING CONSENT TO ASSIGNMENT OF GENTRY GOLF, INC., D.B.A. THE ISLANDS GOLF CENTER LEASE TO NSM GOLF, LLC

WHEREAS, pursuant to Resolution No. 91-12-284 adopted December 18, 1991, and subsequent amendments thereto, OCWD approved a Lease with Gentry Golf, Inc., dba The Islands Golf Center, L.P., for operation of a golf driving range and related activities at OCWD's Burris Basin through September 30, 2022; and

WHEREAS, the President of Gentry Golf, Mr. Damoi Park, has advised that Gentry Golf intends to sell its assets, including the lease, to NSM Golf, LLC and Gentry Golf has therefore requested written consent for the lease assignment; and

WHEREAS, the Property Management Committee has reviewed such request and has recommended assignment of the Lease accordingly;

NOW, THEREFORE, the Board of Directors of the Orange County Water District does hereby approve the assignment of the aforementioned Lease with Gentry Golf to NSM Golf, LLC for the remainder of the lease term; and, subject to approval as to form by General Counsel, the General Manager is authorized to finalize and execute the Assignment of Lease and Consent to Assignment.

CONSENT CALENDAR ITEMS RECOMMENDED FOR APPROVAL AT RETIREMENT COMMITTEE MEETING HELD JANUARY 28

5. 401(A) Money Purchase Plan Investment Line-Up And 457(B) Deferred Compensation Plan Red Flag Fund Review

MOTION NO. 20-12
APPROVING ACTIONS IN CONNECTION WITH 457(B) DEFERRED COMPENSATION PLAN INVESTMENT FUND LINE-UP REVIEW, AND RECEIVING AND FILING RETIREMENT PLAN INVESTMENT FUND PORTFOLIOS

The following actions in connection with the 401(a) Money Purchase Plan and the 457(b) Deferred Compensation Plan investment funds are hereby approved, and the 401(a) Money Purchase Retirement Plan and the 457(b) Deferred Compensation Plan investment portfolios are hereby received and filed.

INVESTMENT FUNDS	SYMBOL	ACTION
457 (B) PORTFOLIO		
Goldman Sachs Intl Eq Insghts Instl	GCIIX	Keep Red Flag
Goldman Sachs Large Cap Gr Insights Instl	GCGIX	Close and Map to ALLIX
401 (A) PORTFOLIO		
Carillon Scout Mid Cap I	UMBMX	Red Flag
BNY Mellon Midcap Index INV	PESPX	Red Flag

6. 401(A) Money Purchase Plan and 457(B) Deferred Compensation Plan Share Class Changes

MOTION NO. 20-13
APPROVNG 401(A) MONEY PURCHASE PLAN AND 457(B) DEFERRED COMPENSATION PLAN SHARE CLASS CHANGES

The share class changes for the 401(a) Money Purchase Plan and 457(b) Deferred Compensation Plan are hereby approved as follows:

401 a Plan Fund Name	Ticker	New Share Class	New Ticker
American Funds New World R5E	RNWHX	R5	RNWFX
American Funds New Perspective R5E	RNPHX	R5	RNPFX
American Funds American Balanced R5E	RLEFX	R5	RLBFX
American Funds 2050 Trgt Date Retire R5E	RHITX	R5	REITX
American Funds 2040 Trgt Date Retire R5E	RHGTX	R5	REGTX
American Funds 2030 Trgt Date Retire R5E	RHETX	R5	REETX
American Funds 2020 Trgt Date Retire R5E	RHCTX	R5	RECTX
American Funds 2010 Trgt Date Retire R5E	RHATX	R5	REATX

457 Plan Fund Name	Ticker	New Share Class	New Ticker
American Funds American Mutual R5E	RMFHX	R5	RMFFX
Goldman Sachs Large Cap Gr Insghts Instl	GCGIX	I	ALLIX

ITEM REMOVED FROM CONSENT CALENDAR FOR CONSIDERATION

2. 2020 Board Committee and Outside Agency Assignments

President Sarmiento requested deferral of this item to the next Board meeting to give the Directors additional time to contact him regarding their Committee preferences. Director Bilodeau announced that he could no longer fulfill his duties as SAWPA Commissioner and suggested that Director Rowe be appointed in his place effective immediately. It was agreed to defer the remainder of the Committee assignments to the February 19 Board meeting.

Upon motion by Director Bilodeau, seconded by Director Yoh, the following resolution was unanimously carried [6-0].

RESOLUTION NO. 20-2-16
APPOINTING KELLY ROWE TO SUCCEED DENIS BILODEAU AS COMMISSIONER ON THE SANTA ANA WATERSHED PROJECT AUTHORITY

RESOLVED, that the Orange County Water District Board hereby appoints Kelly Rowe to succeed Denis Bilodeau as Commissioner of the Santa Ana Watershed Project Authority effective February 5, 2020.

FURTHER RESOLVED, that Dina Nguyen shall continue to serve in the capacity of Alternate Commissioner to SAWPA.

Directors Sheldon arrived at 5:45 p.m. and Director Nguyen arrived at 5:50 p.m. during discussion of the following item.

MATTER FOR CONSIDERATION

7. Draft Polyfluoroalkyl Substances (PFAS) Agreement with Impacted Groundwater Producers

Executive Director John Kennedy recalled that the Board established a PFAS Policy whereby OCWD would construct PFAS treatment systems for impacted Groundwater Producers (GWP). He stated that staff has prepared an agreement to implement the program. Mr. Kennedy outlined the terms of the proposed agreement, noting that OCWD would work closely with GWP in constructing these treatment systems, and at the time of execution of the agreement, OCWD would reimburse the GWP for design costs already incurred. He stated the GWP would own and operate the systems for 30 years and OCWD would provide 50% subsidy for the O&M costs up to $75 per acre foot. Mr. Kennedy noted there is an option for the GWP to take the lead on designing and constructing the system, and pointed out that the GWP will support and be a co-litigant for any legal action that OCWD initiates, with an option for the GWP to pursue its own litigation to recover costs. He explained that all settlement money would be proportionally shared. Mr. Kennedy summarized a new term that provides for establishment of a Steering Committee for the litigation that would be comprised of one OCWD representative and one GWP representative that would meet quarterly or as often as necessary and coordinate with legal counsel, and that an Executive Committee would be formed with two representatives from both OCWD and the participating GWP group. Mr. Kennedy stated the proposed agreement was forwarded to the GWP and that eight comment letters/emails were received from Cities of Anaheim, Garden Grove, Fullerton, Orange, Yorba Linda Water District, Irvine Ranch Water District, East Orange County Water District, and Serrano Water District. The following individuals then addressed the Board:

Irvine Ranch Water District Paul Cook indicated that IRWD will not sign the proposed agreement in its current form and stated that more collaboration with the GWP needs to occur. He urged development of two separate agreements: one in which OCWD constructs the treatment system and one in which the GWP constructs the system. He urged the Board to defer action to allow more time for the GWP to work with staff and legal counsel to develop an acceptable agreement.

East Orange County Water District General Manager Lisa Ohlund also requested two separate agreements and urged the Board defer action on the agreement to allow additional time for GWP review and comment.

Glenn Brooks suggested the use of the pyrolysis process for the treatment of PFAS and suggested the public be allowed to participate in the Steering and Executive Committees in the interest of transparency.

The Board noted that it supports continued dialogue with the GWP, and the following action was taken.

MOTION NO. 20-14
TABLING CONSIDERATION OF PFAS AGREEMENT WITH GROUNDWATER PRODUCERS TO THE FEBRUARY 19, 2020 BOARD MEETING

Upon motion by Director Ta, seconded by Director Zahra and carried [8-0], consideration of the PFAS Agreement with Groundwater Producers is hereby tabled to the February 19 Board meeting.
Ayes: Bilodeau, Nguyen, Rowe, Sarmiento, Sheldon, Ta, Yoh, Zahra
Absent: Brandman, Green

Director Brandman arrived at 6:00 p.m. at this point in tonight's meeting.

INFORMATIONAL ITEMS

8. Santa Ana Watershed Project Authorities Activities

Director Bilodeau reported on the recent SAWPA activities and noted that Director Rowe would be taking over as SAWPA Commissioner.

9. Committee Reports

The Board reported on attendance at the following Committee meetings, noting the Action Agendas were included in tonight's Board packet.

January 24 – Property Management Committee
January 28 – Retirement Committee
January 29 – Joint Planning Committee

VERBAL REPORTS

General Manager Markus advised that Director Green broke her foot while in Sacramento and announced that she was elected to the Executive Committee of ACWA. He also stated that the State will be announcing the changes to the response levels on PFOA and PFOS tomorrow along with the required testing protocols. Director Zahra advised that he will host a PFAS water talk on February 8 at 10:00 a.m. at the Fullerton Community Center. Directors Nguyen, Rowe, Sarmiento, and Ta attended the TET Parade on January 26 in Westminster. Director Rowe stated he attended the Southern California Water Coalition quarterly luncheon on March 24.

RECESS TO CLOSED SESSION

The Board recessed to Closed Session at 6:10 p.m. as follows:

- CONFERENCE WITH LABOR NEGOTIATORS [Government Code Section 54957.6]
  OCWD designated representative: Stephanie Dosier
  - ⊙ Employee Organization: Orange County Employee Association: and
  - ⊙ Non-Represented Employees (Confidential and Management)

- CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION - INITIATION OF LITIGATION [Government Code Section 54956.9(d)(4): One potential case

- CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION - SIGNIFICANT EXPOSURE TO LITIGATION - [Government Code Section 54956.9(d)(2): One potential case

RECONVENE IN OPEN SESSION

The Board reconvened in Open Session at 6:35 p.m. whereupon General Counsel Jungreis advised that no reportable action took place in Closed Session.

ADJOURNMENT

There being no further business to come before the Board, the meeting was adjourned at 6:35 p.m.

_____
Janice Durant, District Secretary

_____
Vicente Sarmiento, President

AGENDA ITEM SUBMITTAL

Meeting Date: March 18, 2020

To: Board of Directors

From: Mike Markus

Staff Contact: J. Kennedy

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: N/A
Funding Source: N/A
Program/Line Item No.: N/A
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: RESOLUTION HONORING MARC MARCANTONIO UPON HIS RETIREMENT FROM THE YORBA LINDA WATER DISTRICT

SUMMARY

Yorba Linda Water District General Manager Marc Marcantonio is retiring this month. Staff has prepared a resolution honoring his years of public service.

Attachment(s): Resolution for Marc Marcantonio

RECOMMENDATION

Adopt resolution honoring Marc Marcantonio for his years of service at the Yorba Linda Water District.

BACKGROUND/ANALYSIS

Marc Marcantonio is the General Manager at the Yorba Linda Water District.
Mark has been a strong supporter of the District's projects and programs and is well respected among the Groundwater Producer community.

RESOLUTION OF THE BOARD OF DIRECTORS OF
THE ORANGE COUNTY WATER DISTRICT
HONORING MARC MARCANTONIO FOR OVER 45 YEARS OF SERVICE
IN THE WATER INDUSTRY

WHEREAS, Marc Marcantonio has provided exemplary public service for over 45 years, including most recently serving as the General Manager of the Yorba Linda Water District (YLWD), and

WHEREAS, Marc led the construction of the Heli-Hydrant, a tank that can provide a remote source of water for water-dropping helicopters to use during wildfires, and

WHEREAS, Marc has been a strong supporter of the Orange County Water District and its efforts to develop new local water supply projects to help ensure that Orange County's residents and businesses have an adequate water supply; and

WHEREAS, Marc is a respected leader in the Orange County water community who actively participated in the monthly Orange County Water District Groundwater Producers group meetings providing insightful comments and direction regarding groundwater management issues and policies; and

WHEREAS, Marc has been instrumental in increasing the ability of YLWD to utilize groundwater and import water from the Diemer Plant through the construction of the Fairmont Booster Pump Station, and

WHEREAS, Marc has been a visionary during unprecedented times regarding the Orange County response to detections of the chemicals perfluorooctanoic acid and perfluorooctane sulfonate, and

WHEREAS, Marc represented the community with wildland interfaces during the Emergency Drought Declaration, and

WHEREAS, Marc is a professional fisherman and will now have more time to pursue his passion, catching trophy size largemouth bass, and

WHEREAS, Mr. Marcantonio has exhibited exceptional professional conduct in his career and is a dedicated public servant.

NOW, THEREFORE, BE IT RESOLVED: The Board of Directors of the Orange County Water District wishes to honor and congratulate Marc Marcantonio for his dedication and successful leadership at the Yorba Linda Water District and express best wishes for his retirement and enjoyment of more time for family and sport fishing.

AGENDA ITEM SUBMITTAL

Meeting Date: February 28, 2020

To: Property Management Committee
Board of Directors

From: Mike Markus

Staff Contact: B. Dosier/D. Park

Budgeted: N/A
Budget Amount: N/A
Cost Estimate (6 months): $4,416
Funding Source: N/A
Program/Line Item No. N/A
General Counsel Approval: Yes
Engineers/Feasibility Report Approved: N/A
CEQA Compliance: N/A

SUBJECT: CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) PROPERTY AT BURRIS BASIN AND GENTRY GOLF, INC. D.B.A. THE ISLANDS CENTER LEASEHOLD

SUMMARY

Gentry Golf, Inc., d.b.a. The Islands Golf Center (Gentry Golf) operates a golf driving range under a lease agreement with OCWD that expires on September 30, 2022. Approximately 1.3 acres of the lease premises and the southerly portion of Burris Basin is owned by the California Department of Transportation (Caltrans). The District entered into a six month Airspace Rental Agreement with Caltrans on February 1, 2018, with an expiration of July 3, 2018, with subsequent extensions of the Agreement expiring January 31, 2020 for the continued use of the Caltrans land while the District pursues decertification of some or all of the land by Caltrans for potential acquisition by the District. As the rental agreement expired January 31, 2020, Caltrans requires a new six-month Agreement, with a new expiration date of July 31, 2020.

Attachment(s):

- Aerial Depiction of Caltrans 1.3 Acres at Burris Basin
- Aerial Depiction of Caltrans decertification area at Burris Basin
- Six-month Airspace Rental Agreement

RECOMMENDATION

Agendize for March 18 Board meeting: Authorize the General Manager to execute a new six-month Airspace Rental Agreement with Caltrans at a rent of $736 per month for the 1.3-acre property, subject to approval by legal counsel.

BACKGROUND/ANALYSIS

The District entered into a lease agreement with Gentry Golf in December 1991, and an amended and restated lease agreement August 2008 allowing Gentry Golf to operate a golf driving range at the southerly basin at Burris Basin, located at 14893 Ball Road, Anaheim.

Upon staff's review of the District's property boundaries of the Gentry Golf lease, staff noted that the current Gentry lease premises and a portion of land extending into the District's southerly portion of Burris Basin include approximately 1.3 acres of land that is identified on County parcel maps as being part of a larger parcel owned by Caltrans for freeway purposes.

Staff discussed the property boundaries with Caltrans staff who confirmed that their records indicated the land belonged to Caltrans. Caltrans staff advised if the District is interested in acquiring the property that it may formerly request that Caltrans review the property for "decertification", make an initial deposit of $35,000 to Caltrans, and enter into a temporary six-month Airspace Rental Agreement during the decertification process. The initial six-month rental agreement with Caltrans had a commencement date of February 1, 2018 and expired on July 31, 2018 with a monthly rental rate of $736. At its April 4, 2018 meeting, the Board authorized initiating the decertification process with Caltrans to pursue acquiring the land. Since the Board's approval, the District has entered into three six-month Air Space agreements, from August 1, 2018 to January 31, 2019, from February 1, 2019 to July 31, 2019, and from August 1, 2019 to January 31, 2020, while concurrently proceeding with the decertification process for the Caltrans land.

As the six-month Air Space Agreement expires on January 31, 2020 and the District continues to work with Caltrans on acquiring the land, Caltrans requires a new six-month rental agreement, with an expiration date of July 31, 2020. Caltrans provided a new version of their standard rental agreement that includes additional lease provisions currently being reviewed by legal counsel. Staff is recommending that the Board authorize execution of a new six-month lease with Caltrans, subject to approval by legal counsel, while concurrently proceeding with the decertification process for the Caltrans land.

PRIOR RELEVANT BOARD ACTION(S)

7/17/2019, R19-7-101, Authorize a temporary month-to-month lease agreement with Caltrans for the continued use of a 1.3-acre portion of land owned by Caltrans, while the staff continues to pursue decertification for permanent land acquisition.

2/6/2019, R19-2-13, Authorize a temporary month-to-month lease agreement with Caltrans for the continued use of a 1.3-acre portion of land owned by Caltrans, while the staff continues to pursue decertification for permanent land acquisition.

11/7/2018, R18-11-160, Authorize amendment two to lease agreement with Gentry Golf, Inc. D.B.A. The Island Golf Center at Burris Basin extending the lease through September 30, 2019.

7/18/18, M18-7-78, Authorize a temporary month-to-month lease agreement with Caltrans for the continued use of a 1.3-acre portion of land owned by Caltrans, while the staff continues to pursue decertification for permanent land acquisition.

4/4/18, M18-45, Authorize the General Manager to initiate the decertification process with Caltrans for the 1.3 acres at Burris Basin; approve initial deposit of $35,000 to initiate the decertification; and approve additional funds of $10,000 for additional professional services for the decertification.

4/4/18, M18-44, Staff is directed to negotiate a one-year lease extension with Gentry Golf, Inc. to commence when current lease expires on September 30, 2018.

3/7/18, R18-3-19, Authorized issuance of Amendment One to Lease Agreement with Gentry Golf, Inc., providing additional General Liability insurance coverage, and consent to a Sublease with DH and LO, Inc. d.b.a. Olympus Golf Pro and Gentry Golf, Inc.

2/7/18, R18-2-9, Execution of a temporary month-to-month lease agreement with Caltrans for use of the property while staff continues to negotiate a short-term lease with Caltrans for the continued use of the 1.3 acres; and issuance of a Purchase Order to Fidelity National Title for a preliminary title report on such land; and issuance of a work order in an amount not to exceed $6,000 to Paragon Partners for the appraisal of the 1.3-acre property;

3/16/16, M16-41, Discussion of the request for rent relief for the Islands Golf Center deferred for 60 days to allow The Islands Golf Center to prepare requested documentation

4/3/13, R13-4-28, Approving Gentry Golf Consent to Sublease to S & W Golf;

4/3/13, R13-4-29, Approving Gentry Golf Consent to Sublease to Golf for Life Skills;

9/7/11, R11-9-124, Approving Gentry Golf Consent to Sublease to Golf on the Edge at Burris Basin;

7/20/11, R11-07-112, Approve Consent to Sublease with Gentry Golf d.b.a. The Islands Golf Center to sublease to Golf on the Edge, for a term of 5 days;

8/6/08, R08-8-107, Authorizing amended and restated lease agreement with Gentry Golf, Inc. d.b.a. The Island Golf Center at Burris Basin;

10/20/04, R04-10-128, Consent to Sublease to Worldwide Golf Enterprises, Inc. d.b.a. Roger Dunn Golf Shop for operation of a golf pro shop;

08/06/08, R08-08-107, Approved and Authorized Execution of Lease to Gentry Golf, Inc. d.b.a. The Island Golf Center for Golf Facility at Burris Pit;

9/17/03, R03-9-139, Authorized Amendment Five to Lease to extend the Expiration Date of Lease to October 22, 2003;

10/15/03, R03-10-150, Approve and authorize Amendment Six to Lease to Extend the term of the Lease to September 30. 2008, a new option to extend the lease for 5 years, change the percentage rent to 12% of Gross Receipts for 2 years with a 1% increase in the percentage rent thereafter, Minimum rent set at $6,000/mo. and after two years increase it by equal amounts to $7,000/mo. and other minor changes;

7/21/99, M99-135, Approve Waiver of Rent at the Island Golf Center for One Evening for the Anaheim Fire Department Swift Water Rescue Team Water Rescue Demonstration;

4/21/99, R99-4-50, Approving and Authorizing Execution of Consent to Sublease by Gentry Golf of the Islands Golf Center to David Graf for Operation of Restaurant/Bar;

4/16/97, R97-4-55, Approving and Authorizing Amendment Four to Gentry Golf, Inc. Lease for Burris Pit Golf Concession;

3/19/97, R97-3-39, Approving and Authorizing Execution of Gentry Golf, Inc. Consent to Assignment of Lease and Consent to Subleases;

3/19/97, R97-3-39A, Consent to Assignment of 50% interest in Gentry Golf, Inc. to Peacock Trading, LTD, a Hong Kong corporation

1/15/97, R97-1-7, Instructing Staff to Issue Notices to Gentry Golf to Pay Delinquent Rent and Cure Lease Violations;

4/20/94, R94-4-65, Approving and Authorizing Execution of Amendment Three to Gentry Golf Lease at Burris Pit adds rent for Chipping Green and sets pro shop rent at $2,000 per month;

1/19/94, R94-1-8, Provides for Issuance of License Agreements;

7/7/93, R93-7-120, Receiving and Filing Affidavit of Publication of Notice Inviting bids and rejecting all bids for Contract No. SAR -93-2, Islands Golf Center Site Improvements; and Approving and Authorizing execution of Amendment No. 2 to Gentry Golf, Inc. Lease providing for Purchase Lease Back Agreement;

2/17/93, R93-2-27, Approved and Authorized Execution of Amendment One to Gentry Golf Lease and transfer of funds;

12/18/91, R91-12-284, Approved and Authorized Execution of Lease to Gentry Golf, Inc. for Golf Facility at Burris Pit.

Location Map

Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 11, 2020

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: R. Herndon, T. Sovich

Budgeted: No
Budgeted Amount: $0
Cost Estimate: $48,320
Funding Source: General Fund
Program/Line Item No.: 1075.53010.9900
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: **AMENDMENT NO. 2 TO AGREEMENT NO. 1175 WITH INTERA, INC. EXTENDING ALAMITOS GROUNDWATER MODEL INTO SUNSET GAP**

SUMMARY

Intera, Inc. has successfully expanded the Alamitos groundwater model into the Sunset Gap area and calibrated the model to observed groundwater levels and chloride concentrations. The calibration process proved to be more involved than originally scoped. The additional labor expenses requested by OCWD staff for Intera total $48,320 to recover unanticipated calibration costs, conduct seven additional predictive simulations to analyze remedial alternatives, and complete model documentation.

Attachment: Letter request for additional funds from Intera, Inc.

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board meeting: Authorize issuance of Amendment No. 2 to Agreement No. 1175 with Intera, Inc., in the amount of $48,320 to recover calibration costs, conduct seven additional predictive simulations, and complete model documentation for the Alamitos-Sunset Gap groundwater model.

BACKGROUND/ANALYSIS

Based on the District's investigations confirming seawater intrusion in the Sunset Gap beneath the Naval Weapons Station Seal Beach (NWSSB), OCWD retained Intera, Inc. to expand the original Alamitos groundwater model to cover areas of concern in the Sunset Gap (see Figures 1 and 2). Intera constructed the original Alamitos model in 2009-10 and was selected to perform the model expansion based on their prior knowledge and success.

Intera's scope for the model expansion included defining the geologic model layering within the expanded model areas, including the Sunset Gap area and LA County. Upon review of existing Department of Water Resources (DWR) and OCWD basin cross-sections after incorporation into Intera's geologic model, it became evident by both Intera and OCWD modeling staff that there were discrepancies between the older

interpretations where the previous studies overlapped with one another. Due to the wealth of newer well data obtained since the time of these older cross-sections, OCWD staff spent considerable time updating and revising the previous geologic cross-sections and preparing new cross-sections within the study area.

The new geologic interpretations incorporate data from wells constructed over the last 20 years by OCWD, Water Replenishment District of Southern California (WRD), and water retail agencies. OCWD staff also incorporated geologic structural information from recent work conducted by the U.S. Geological Survey (USGS) for WRD in the Central Basin, since the expanded Alamitos-Sunset Gap model extends into Los Angeles County. To incorporate these geologic refinements into the expanded model, the OCWD Board approved Amendment No. 1 to Intera's agreement in May 2018, for an additional $28,710.

Intera has expanded the Alamitos groundwater model into the Sunset Gap area and calibrated the model to observed groundwater levels and chloride concentrations. The calibration process proved to be more involved than originally scoped, largely due to incorporating the new geologic interpretations made by OCWD staff as well as data from new OCWD monitoring wells OCWD-BS13 and OCWD-BS24 constructed during 2019. As a result, Intera expended more hours and budget on the flow model calibration to match observed groundwater levels and the solute transport calibration to match observed chloride concentrations.

With the completion of model calibration, the remaining tasks for Intera include predictive model runs to assess various alternatives for a proposed Sunset Gap seawater intrusion barrier. The original agreement with Intera included only three predictive simulations, assuming OCWD staff would conduct further simulations. However, due to OCWD modeling staff's current workload (ongoing updates to the basin model as well as upcoming mid-basin injection travel time modeling), staff recommends authorizing Intera to conduct seven additional predictive simulations (total of 10 predictive simulations) and document the results to complete the proposed barrier alternatives analysis. A potential dual injection/extraction barrier alignment concept is shown in Figure 3.

Staff recommends approving Amendment No. 2 with Intera, increasing the not-to-exceed amount by $48,320 to recover unanticipated calibration costs, conduct seven additional predictive simulations, and complete model documentation for the Alamitos-Sunset Gap model. Table 1 shows the modeling project costs including Amendments 1 and 2.

Table 1. Intera, Inc. Sunset Gap Modeling Costs

Original Agreement	Expand Alamitos model area by nearly two times	$135,032
Amendment No. 1	Incorporate new geologic data into model	28,710
Amendment No. 2 (proposed)	Additional calibration, 7 add'l model simulations	48,320
	Total:	**$212,062**

PRIOR RELEVANT BOARD ACTIONS

5/23/18, R18-5-53 – Authorize issuance of Amendment No. 1 to Agreement No. 1175 with Intera, Inc., in the amount of $28,710 for additional work necessary to expand the Alamitos Gap groundwater model into the Sunset Gap area.

7/20/16, R16-7-102 – Authorize issuance of Professional Services Agreement to Intera, Inc. for an amount not to exceed $135,032 for expanding the Alamitos Gap groundwater model into the Sunset Gap area.

9/16/09, R09-9-147 - Authorize issuance of Professional Services Agreement to Intera, Inc. for an amount not to exceed $269,804 for the development of a groundwater computer model of the Alamitos Barrier.

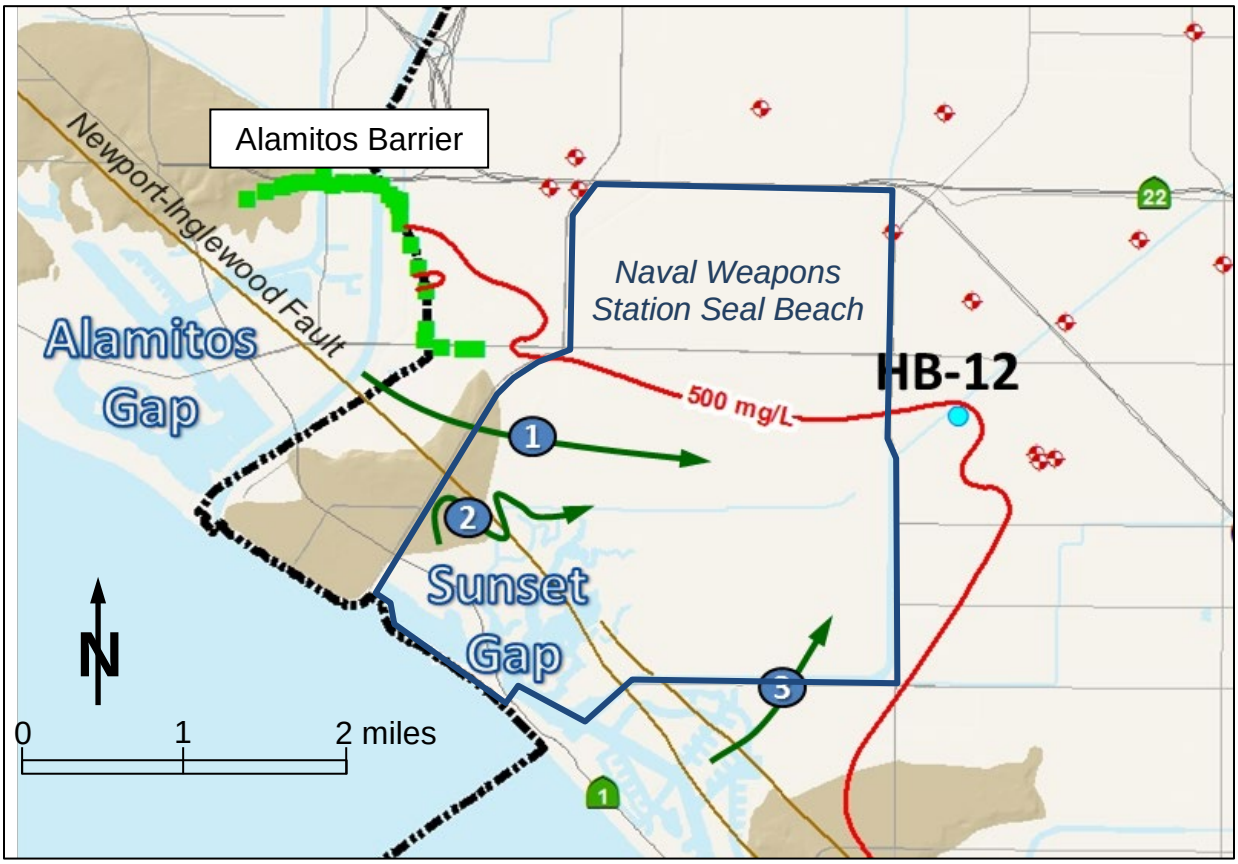


Figure 1. Four potential sources of seawater intrusion identified: (1) Alamitos Gap south of the Alamitos Barrier, (2) Leakage across the Newport-Inglewood Fault and/or vertical leakage from the tidal marsh, and (3) Huntington Harbour. Former well HB-12 is near the leading edge of the intrusion as indicated by the 500 milligram per liter chloride contour.

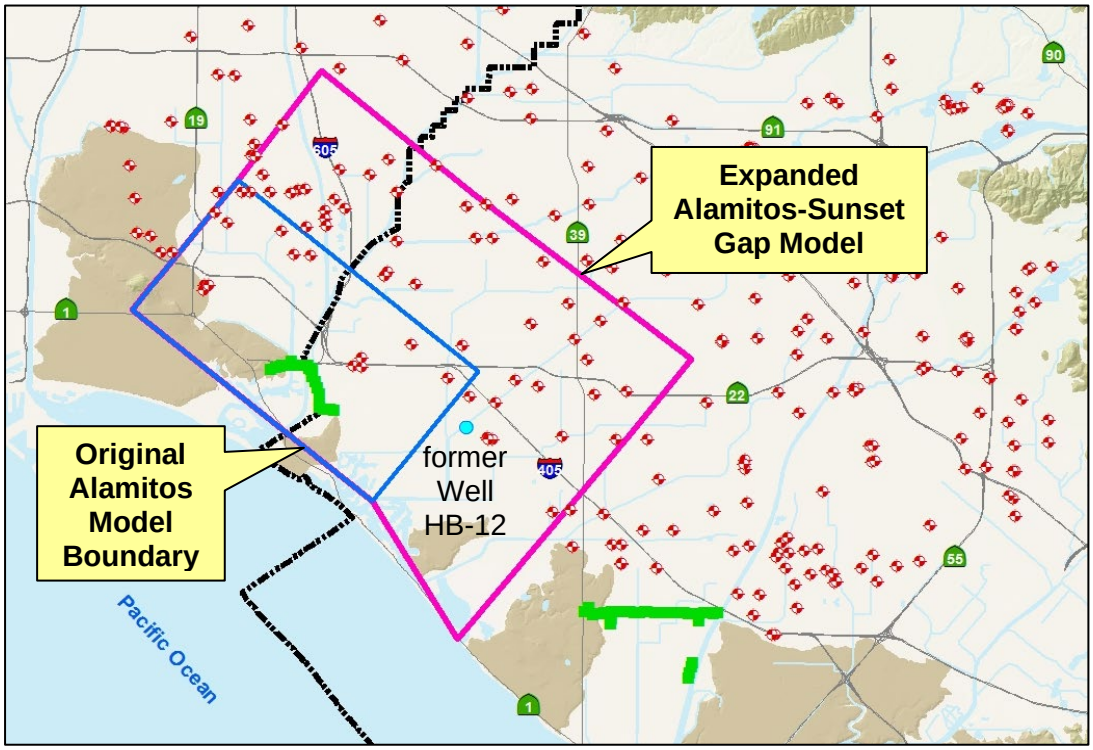


Figure 2. The expanded model boundary covers an area of approx. 70 sq. miles -- 2.7 times larger than the original Alamitos model. The expanded boundary is far enough from the areas of interest (e.g., HB-12) to prevent inaccuracies in the model predictions.

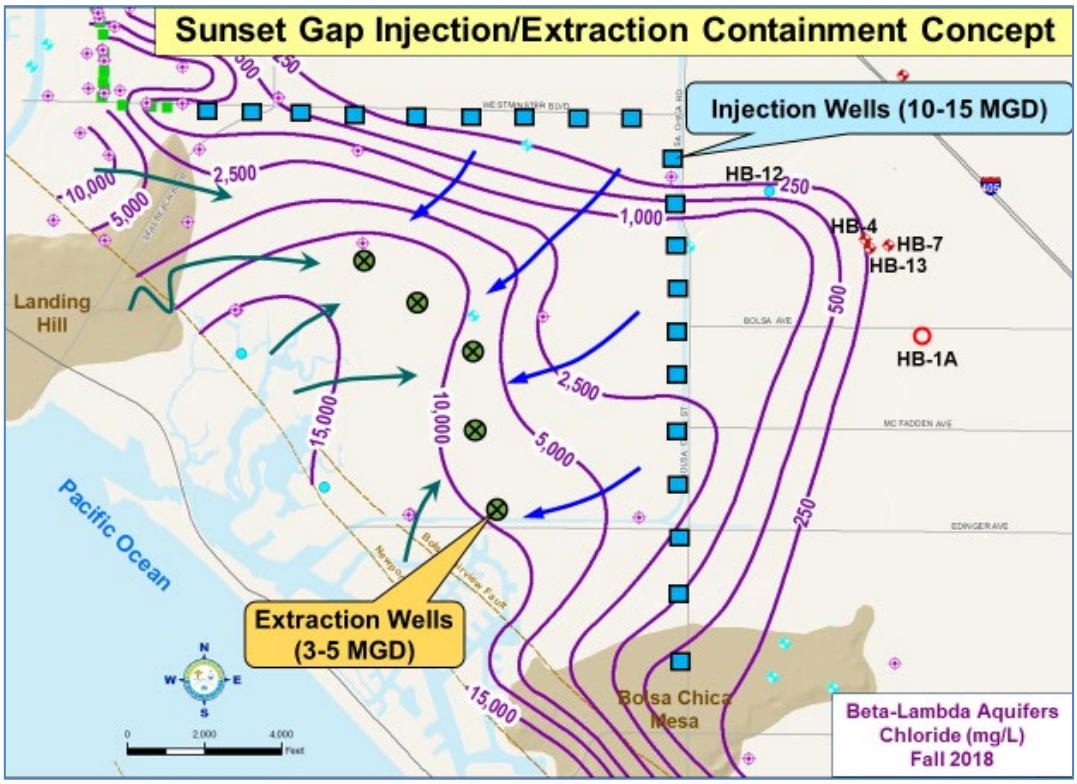


Figure 3. The conceptual Sunset Gap seawater intrusion barrier may require both injection and extraction wells to prevent inland migration of brackish water.

Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 11, 2020

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: M. Patel / J. Bonsangue

Budgeted: Yes
Budgeted Amount: $557,460
Cost Estimate: $407,302
Funding Source: R&R
Program/ Line Item No. R19010
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: PURCHASE ORDER TO QUINN COMPANY FOR A CATERPILLAR 950M FRONT END LOADER

SUMMARY

The District's fleet of heavy equipment has been scheduled for replacement over the next several years for two reasons; first they are aging and several have over 10,000 operating hours; and second because new California Air Resources Control Board (CARB) regulations require the District's existing Tier-0 equipment to be systematically phased out and replaced (between now and 2023) with newer engines that reduce emissions of oxide of nitrogen (NOx) and particular matter (PM).

Attachment(s): Quinn Company quote dated March 3, 2020

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board meeting: Authorize issuance of a Purchase Order to Quinn Company in the amount of $407,302 for a Caterpillar Tier 4 Model 950M front end loader and authorize the surplus and sale of the existing RT-17 front end loader.

BACKGROUND/ANALYSIS

Currently, the District owns one Caterpillar front-end loader RT-17. RT-17 has proven to be a very reliable machine. The front-end loader is an important operating tool for Forebay and the Prado Wetlands. This equipment is very useful for, cutting vegetation, hauling vegetation, and moving large volumes of earth material. The front-end loader is also used for concrete and asphalt removal and hauling dead fish during basin cleaning events.

A purchased replacement front-end loader is expected to be used much more frequently than RT-17 was used in the past due to increases in workload but also advances in equipment technology that now allow for an articulating " 4-in-1" bucket with multiple functions that RT-17 and rental front-end loaders do not have.

The new front-end loader can pick up piles of material (earth, concrete, vegetation, trash, debris) independently with the 4-in-1 bucket. Currently, additional equipment and staff is needed to assist in loading the existing front-end loader. The new front-end

loader will eliminate the need for supporting equipment and staff, streamlining the overall efficiency of work at field headquarters. Furthermore, the 4-in-1 bucket can be used as a strainer to separate water and small rocks from the material being loaded, eliminating the potential to haul unnecessary weight.

The replacement front-end loader with the 4-in-1 bucket can also be used as an off-road fork-lift and an off-road short crane, eliminating the need to rent either of these types of equipment in the future. The 4-in-1 bucket can uproot small tress eliminating the need for some future contracted tree removal services.

Staff obtained price quotes for a replacement front-end loader equipped with a 4-in-1 bucket from 3 leading manufacturers. Prices are summarized in the Table below:

Replacement Front-end Loader with 4-in-1 Bucket Prices

Caterpillar	$407,302
John Deere	$428,931
Komatsu	$453,962

The Caterpillar front-end loader factory price is discounted by $104,200 or 22% below list price through the Federal (GSA) and California Multiple Award Schedule (CMAS), and TEMP/OTO discount programs. Staff evaluated the option of renting the equipment on an as-needed basis to determine the return on new purchase investment. Rental front-end loaders are not equipped with the 4-in-1 bucket modification. A comparison of purchasing versus renting a replacement front-end loader is provided below:

Purchasing vs. Renting a Replacement Front-end Loader

Daily rental rate	$922
Average annual usage (30 years / 6,500 hours)	35 days per year
Annual Rental Fees (35 x $922)*	$ 32,270
Purchase price of new front-end loader	$515,294
Return on Investment ($515,294 / $ 32,270)	16 years

*includes delivery charge

Additionally, staff evaluated a lease option available from Caterpillar that does include the 4-in-1 bucket. A table comparing the lease option to purchase is provided below:

3- year lease total payment amount	$404,898
Purchase price	$407,302

The 3-year lease option is only slightly less than the purchase price. A purchased replacement front-end loader is expected to be used much more frequently than RT-17 because of the 4-in-1 articulating bucket. The 4-in-1 articulating bucket is a modification that was included in the purchase price of the replacement front-end loader. With the purchase of a replacement front-end loader equipped with the 4-in-1 bucket it is likely that the District will rely less on various pieces of rental equipment to complete projects in the future.

In keeping with the District's replacement schedule, staff recommends that front-end loader RT-17 which is Tier-0 status, 30 years old, with over 6,500 hours be placed in surplus status; and replaced with a new Caterpillar diesel Tier 4 Model 950M front end loader from Quinn Company. The purchase price of $407,302 includes a 4-in-one articulating bucket, a 12-month standard warranty and an additional 60 month/ 6,000 hours extended total machine warranty, tax and delivery charges. .

Figure 1 shows the equipment and the 4-in-1 articulating bucket.

Figure 1

Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 11, 2020

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: R. Herndon/ G. Yoshiba

Budgeted: Yes
Budgeted Amount: $720,000
Cost Estimate: $580,905 (final cost)
Funding Source: R&R (fully reimbursed by Orange Coast College)
Program/ Line Item No.: R19026
General Counsel Approval: N/A
Engineers/Feasibility Report: Yes
CEQA Compliance: Yes

Subject: NOTICE OF COMPLETION FOR CONTRACT GBM-2019-1: DRILLING, CONSTRUCTION, AND DEVELOPMENT OF REPLACEMENT MONITORING WELL OCWD-M43R AT ORANGE COAST COLLEGE

SUMMARY

Best Drilling and Pump, Inc. (Best Drilling) has completed all work under Contract GBM-2019-1 for the installation of replacement monitoring well OCWD-M43R located on the campus of Orange Coast College (OCC) in Costa Mesa, California. The final contract costs were $565,635, which is $15,226 under the Board-approved contract budget.

Attachments:

- Figure 1 Well Location Map
- Change Order No. 1
- Change Order No. 2

RECOMMENDATIONS

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board meeting:

1. Ratify issuance of Change Order Nos. 1 and 2; and
2. Accept completion of work and authorize filing a Notice of Completion for Contract GBM-2019-1, Drilling, Construction, and Development of Replacement Nested Monitoring Well OCWD-M43R.

BACKGROUND/ANALYSIS

Former monitoring well OCWD-M43, located on the campus of OCC in Costa Mesa, was a 600-foot deep, multi-depth monitoring well that was screened in five water-bearing zones and was a key well used to monitor potential seawater intrusion and groundwater flow beneath the Newport Mesa. Data collected from this well was also used to prepare the annual groundwater level contour maps to determine change in basin storage and to evaluate groundwater quality upgradient of Mesa Water District's production wells.

In summer 2018, OCC, one of the Coast Community College District's (CCCD) campuses, notified OCWD staff that it was preparing to construct a $100 million 840-room, 4-story student housing facility on the Costa Mesa campus, where OCWD maintained monitoring well

OCWD-M43 under a 2002 permanent easement granted by CCCD. Unfortunately, the well was located within one of the proposed building footprints, making preservation of the well infeasible. Representatives from OCC, CCCD, and the developer (Servitas) indicated a willingness to cover the cost to decommission (properly destroy and seal) the existing OCWD-M43 well and construct a replacement well nearby.

Following OCWD Board authorization in August 2018, the General Manager negotiated and executed an agreement with CCCD that provided for the relocation of well OCWD-M43 within a new easement and included cost reimbursement for the construction of the replacement well (designated OCWD-M43R). Per the agreement, well OCWD-M43 was properly destroyed and sealed in November 2018. OCWD staff then prepared the environmental documentation for construction of the replacement well. As shown in Figure 1, replacement well OCWD-M43R was located approximately 1,400 feet northeast of the former well site near the campus Recycling Center.

In July 2019, the Board approved the project budget of $720,000 for the construction of the replacement monitoring well. The Notice Inviting Bids was issued on July 29, 2019 and the Board approved and awarded Contract GBM-2019-1 to Best Drilling in September 2019.

The Notice to Proceed was issued on October 18, 2019 and well OCWD-M43R was drilled, constructed, developed, and completed in February 2020 as a five-casing nested well (maximum depth 560 feet). OCC approved the site cleanup and site restoration except for the need to apply asphalt slurry coating over the work area. The slurry seal was not originally part of Best Drilling's original scope of work, so OCWD staff will contract out and complete this task separately, the cost of which will be reimbursed by OCC. Therefore, Best Drilling has completed all work under Contract GBM-2019-1.

Change Order No. 1 (Executed January 2020)

Best Drilling encountered unexpected site conditions during sound wall installation. Difficult and time-consuming coring through the approximate 1-foot thick asphalt surface layer for sound wall steel support beams was not anticipated. Contract time was also increased by two days.

Change Order No. 2 (Executed March 2020)

Several bid item adjustments were made to reconcile the original bid quantities with the actual quantities of work/materials completed/installed. The total of these adjustments results in a contract credit to OCWD for $15,226 and was approved under the General Manager's authority as Change Order No. 2.

Table 1 below summarizes the approved Project budget and expenditures to date.

Table 1.
Summary of Costs for the Well Replacement Project and Contract GBM-2019-1

Task	Approved Budget	Completed Work & Anticipated Expenditures
Replacement Monitoring Well Installation OCWD-M43R (Contract GBM-2019-1)	$ 713,000	$ 573,601
Change Order No. 1	--	7,260
Change Order No. 2	--	(15,226)
Subtotal Contract GBM-2019-1	$ 713,000	$ 565,635
Construction Inspection Services(1)	--	--
Geophysical Survey for Buried Utilities	--	1,270
Surveying Services	7,000	4,000
Asphalt Slurry Coat (estimate only)	--	10,000
PROJECT TOTAL:	**$ 720,000**	**$ 580,905**

(1) Inspection services performed by OCWD geologist.

PRIOR RELEVANT BOARD ACTIONS

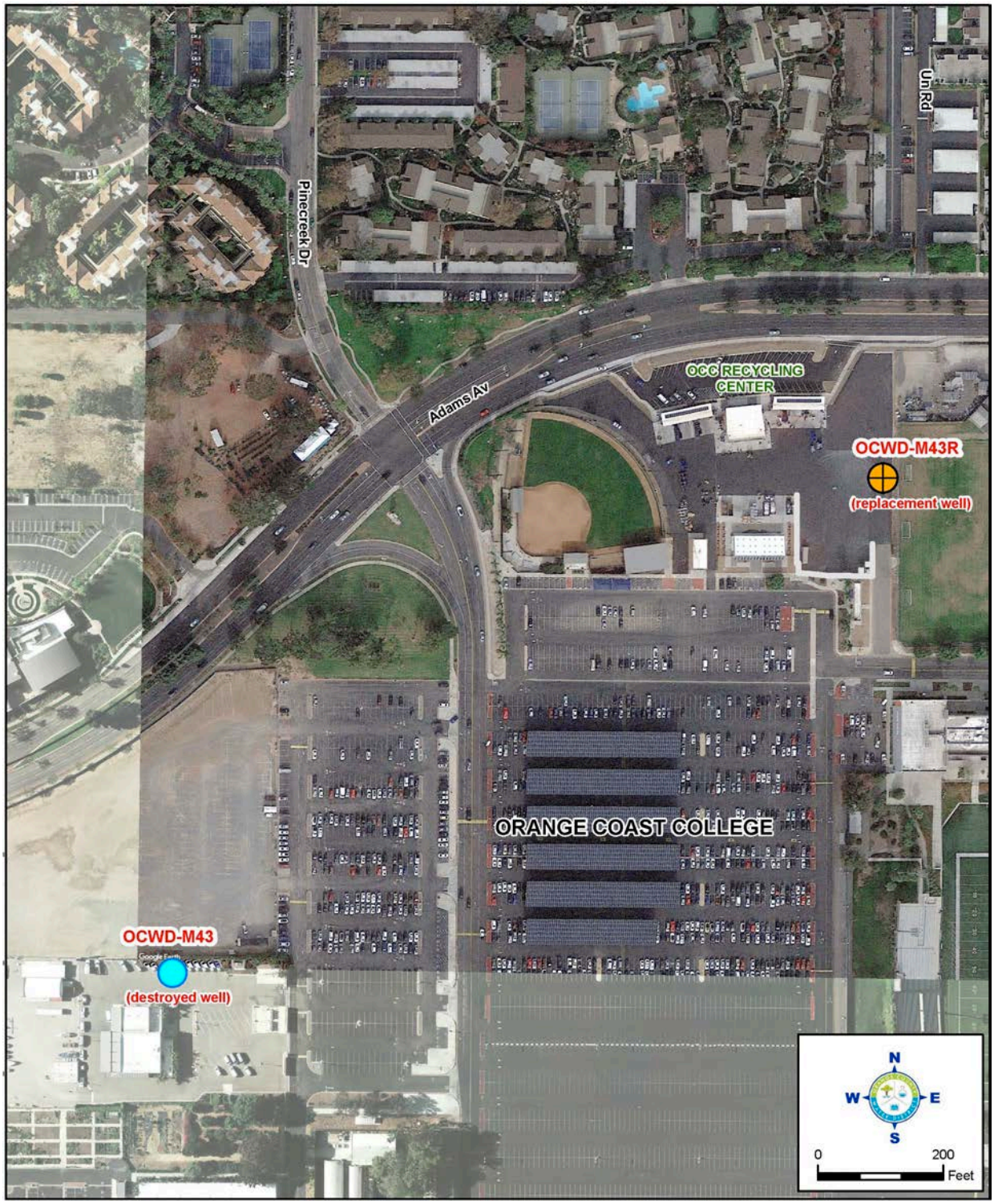
9/18/19 R19-9-142 Receive and file Affidavit of Publication of Notice Inviting Bids for Contract No. GBM-2019-1 and accept bid and award Contract GBM-2019-1 to Best Drilling and Pump, Inc. for an amount not to exceed $573,601.

7/17/19 R19-7-102 Adopt the Final Initial Study/Mitigated Negative Declaration for OCWD-M43R replacement monitoring well installation project; Authorize filing of Notice of Determination for the Final Initial Study/Mitigated Negative Declaration for OCWD-M43R replacement multi-depth monitoring well installation project; Establish a project budget of $720,000; and Authorize issuance of Notice Inviting Bids for the OCWD-M43R replacement multi-depth monitoring well installation project.

8/1/18 R18-8-94 Authorize the General Manager to negotiate the terms of and execute an agreement with Coast Community College District and potential other parties to relocate OCWD monitoring well OCWD-M43, including reimbursement of costs and a relocated easement.

4/17/02 R02-4-60 Authorize execution of easement agreement with Coast Community College District for construction and maintenance of monitoring well OCWD-M43.

FIGURE 1: WELL LOCATION MAP



CHANGE ORDER NO. 1

CONTRACT NO. GBM-2019-1

TO: Best Drilling & Pump, Inc.
1640 Pellisier Road
Colton, California 92324

You are hereby directed to provide the extra work necessary to comply with this Change Order.

DESCRIPTION OF CHANGE:

Best Drilling encountered unexpected site conditions during sound wall installation. Difficult and time-consuming coring through the approximate 1-foot thick asphalt surface layer for sound wall steel beams support were not anticipated.

PAYMENT:

Increase in contract cost and work shall not exceed $7,259.69.

CONTRACT TIME:

Increase contract time of two days.

ACCEPTANCE:

Contractor accepts the terms and conditions stated above as full and final settlement of any and all claims arising from this Change Order and acknowledges that the compensation (time and cost) set forth in the Change Order comprises the total compensation due for the work or change defined in the Change Order, including all impact on any unchanged work. By signing the Change Order, the Contractor acknowledges and agrees that the stipulated compensation includes payment for all Work contained in the Change Order, plus all payment for the interruption of schedules, extended overhead costs, delay, and all impact, ripple effect or cumulative impact on all other Work under this Contract. The signing of the Change Order acknowledges full mutual accord and satisfaction for the change, and that the time and/or cost under the Change Order constitute the total equitable adjustment owed the Contractor as a result of the change. The Contractor agrees to waive all rights, without exception or reservation of any kind whatsoever, to file any further claim or request for equitable adjustment of any type, for any reasonably foreseeable cause that shall arise out of or as a result of this Change Order or the impact of this Change Order on the remainder of the Work under this contract.

Contractor agrees to perform the above-described work in accordance with the above terms and in compliance with applicable sections of the Contract Documents

---

This Change Order is hereby agreed to, accepted and approved, all in accordance with the General Provisions of the Contract Documents.

ORANGE COUNTY WATER DISTRICT

By: _____ 01/06/2020
Project Manager — Date

By: _____ 1/6/20
District Hydrogeologist — Date

By: _____ 1/6/20
Executive Director — Date

By: _____ 01-07-20
General Manager — Date

CONTRACTOR

By: _____ 12/13/19
Date

Title: Vice President

By: _____ 12/13/19
Date

Title: Project Manager

CHANGE ORDER NO. 2

CONTRACT NO. GBM-2019-1

TO: Best Drilling & Pump, Inc.
1640 Pellisier Road
Colton, California 92324

You are hereby directed to provide the extra work necessary to comply with this Change Order.

DESCRIPTION OF CHANGE:

Change Order No. 2 dated March 2, 2020 includes the following bid item adjustments:

1. Reduce Bid Item 4 by 4 Hours, Rock Clause: ($1,800.00)
2. Reduce Bid Item 7 by 25 Linear Feet, Aquifer Zone Seal: ($1,675.00)
3. Increase Bid Item 8 by 15 Linear Feet, Borehole Reaming: $1,950.00
4. Reduce Bid Item 9 by 20 Linear Feet, Borehole Cleanout: ($2,600.00)
5. Increase Bid Item 11 by 72 Linear Feet, Blank Casing: $1,152.00
6. Reduce Bid Item 12 by 20 Linear Feet, Well Screen: ($940.00)
7. Reduce Bid Item 13 by 102 Linear Feet, Filter Pack: ($6,834.00)
8. Increase Bid Item 14 by 82 Linear Feet, Annular Seal: $5,494.00
9. Increase Bid Item 15 by 10 Linear Feet, Sanitary Seal: $1,000.00
10. Reduce Bid Item 18 by 14 Hours, Well Development (Pumping): ($6,412.50)
11. Reduce Bid Item 22 by 570 Linear Feet, Abandonment: ($4,560.00)

PAYMENT:

Net Contract Adjustment: ($15,225.50)

CONTRACT TIME:

No Change.

ACCEPTANCE:

Contractor accepts the terms and conditions stated above as full and final settlement of any and all claims arising from this Change Order and acknowledges that the compensation (time and cost) set forth in the Change Order comprises the total compensation due for the work or change defined in the Change Order, including all impact on any unchanged work. By signing the Change Order, the Contractor acknowledges and agrees that the stipulated compensation includes payment for all Work contained in the Change Order, plus all payment for the interruption of schedules, extended overhead costs, delay, and all impact, ripple effect or cumulative impact on all other Work under this Contract. The signing of the Change Order acknowledges full mutual accord and satisfaction for the change, and that the time and/or cost under the Change Order constitute the total equitable adjustment owed the Contractor as a result of the change. The Contractor agrees to waive all rights, without exception or reservation of any kind whatsoever, to file any further claim or request for equitable adjustment of any type, for any reasonably foreseeable cause that shall arise out of or as a result of this Change Order or the impact of this Change Order on the remainder of the Work under this contract.

Contractor agrees to perform the above-described work in accordance with the above terms and in compliance with applicable sections of the Contract Documents

---

This Change Order is hereby agreed to, accepted and approved, all in accordance with the General Provisions of the Contract Documents.

ORANGE COUNTY WATER DISTRICT

By: _____
Project Manager Date

By: _____
District Hydrogeologist Date

By: _____
Executive Director Date

By: _____
General Manager Date

CONTRACTOR

By: _____
Date

Title: _____

By: _____
Date

Title: _____

Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 11, 2020

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: S. Scott-Roberts/B. Smith

Budgeted: No
Budgeted Amount: $273,000
Cost Estimate: $273,000
Funding Source: R&R Fund
Program/Line Item No.: R19006
General Counsel Approval: NA
Engineers/Feasibility Report: NA
CEQA Compliance: NA

Subject: RATIFY PAYMENT TO W.A. RASIC CONSTRUCTION AND AUTHORIZE ISSUANCE OF AGREEMENT WITH JAMISON ENGINEERING FOR GWRS PIPELINE REPAIR WORK AND W.A. RASIC CONSTRUCTION FOR FUTURE GWRS PIPELINE REPAIR WORK

SUMMARY

In December 2019, a GWRS product water leak was discovered coming from the Groundwater Replenishment System (GWRS) Pipeline within Garfield Avenue near the Santa Ana River. The leak was temporarily repaired in December with our emergency on-call contractor, W.A. Rasic Construction, to allow the GWRS facility to be put back in operation. With an upcoming planned two-week GWRS facility outage in April 2020, staff recommends performing the permanent repair to the GWRS pipeline with agreements with Jamison Engineering and W.A. Rasic Construction for a total amount of $273,000.

Attachments:

W.A. Rasic Construction Invoice – December 2019
Jamison Engineering Proposal
W.A. Rasic Construction Proposal

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board Meeting:

1) Ratify Work Order No. 2 of Agreement No. 1291 to W.A. Rasic Construction Company, Inc. for emergency repair of the 78-inch GWRS pipeline in December 2019 in the amount of $57,302;

2) Authorize Issuance of Agreement with Jamison Engineering for the installation of interior seals on the GWRS pipeline in the amount of $35,000; and

3) Authorize issuance of an emergency repair work order to W.A. Rasic Construction for the repair of the GWRS pipeline couplings in the amount of $180,000.

DISCUSSION

On December 17, 2019, OCWD staff noticed a small amount of water seepage coming up from the asphalt at the east end of Garfield St near the Santa Ana River. Staff determined that the water matched characteristics of GWRS product water. OCWD staff worked with a leak detection service to pinpoint the exact leak location. With the location of the leak marked – staff called our on-call emergency contractor, W.A. Rasic Construction to begin work immediately to excavate to the GWRS pipeline and locate the leak. The GWRS facility was taken off-line to lessen the pressure within the pipeline and allow W.A. Rasic Construction to complete their excavation and repair work. There were two leak locations discovered on the existing mechanical couplings on the 78-inch diameter GWRS pipeline. It was determined that the mechanical couplings separated for an unknown reason and loosened up the bolts holding it together and leaked. W.A. Rasic Construction was able to tighten the majority of the bolts on the two mechanical couplings and this stopped the majority of the leak. At that time, it was determined that this temporary fix would be sufficient to allow the GWRS facility to be put back on-line. The GWRS facility was put back on-line on December 21st with minimal leakage. The repair spots have not been back filled but have however been kept covered with steel plates. The work was authorized by the general manager through the emergency work procedure in-place for these types of repairs. The invoice for this emergency work was received on January 22, 2020 by W.A. Rasic Construction in the amount of $57,302 and should be ratified for payment through this agenda item.

OCWD staff have had meetings with W.A. Rasic Construction and Jamison Engineering to determine the best permanent fix to this issue. The permanent fix recommended by staff is to completely tighten all the bolts surrounding each of the four mechanical couplings on the 78-inch GWRS pipeline. This will require a full excavation of the pipeline and shoring to completely expose all sides of the pipeline. Since this work will involve the tightening the bolts on a mechanical coupling – the pipeline should be off-line during this work. In addition to tightening the bolts – staff will have W.A. Rasic Construction ensure that the gaskets for each of the mechanical couplings are in good condition. Bolts and gaskets should be replaced as needed to complete the work.

As part of the GWRS Final Expansion Project, the general contractor, Shimmick Construction Co. is planning a 2-week GWRS facility outage to upgrade the Delta V software that controls the operation of the facility. This outage is planned for April 20, 2020 through May 6, 2020. Staff would like to take advantage of this opportunity and complete this permeant GWRS pipeline repair work during this outage.

Therefore staff received a budgetary quote from W.A. Rasic Construction to perform the tightening of all the bolts on all four mechanical couplings on the 78-inch GWRS pipeline as described above. The quote received from W.A. Rasic Construction is in the amount of $180,000 and is reasonable for the scope of work. W.A. Rasic Construction will be billing OCWD on a time and material basis and may therefore only end up billing a portion of the total estimated amount of $180,000. OCWD staff will be overseeing this work and ensuring the time billed is acceptable.

In addition to the mechanical coupling work being proposed to be performed by W.A. Rasic Construction, staff is recommending the installation of an internal seal on the

mechanical couplings to prevent further leaks in the future. Jamison Engineering has experience installing Weko-Seals, an EPDM rubber product, that lines the interior of a pipeline over any openings that need to be sealed. Staff therefore requested a quote from Jamison Engineering to enter into the GWRS pipeline and install these Weko-Seals internally after the mechanical couplings have been tightened. Jamison Engineering provided the attached quote for $35,000 to perform this work.

Therefore, with approval of these agreements/work orders, staff will be coordinating all this GWRS pipeline work to coincide with the GWRS outage planned for the GWRS Final Expansion Project in April 2020.

PRIOR RELEVANT BOARD ACTIONS:

Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 11, 2020

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: M. Plumlee

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: N/A
Funding Source: N/A
Program/Line Item No. N/A
General Counsel Approval: Yes
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: CONFIDENTIAL NONDISCLOSURE AGREEMENT WITH REGENESIS BIOREMEDIATION PRODUCTS TO SUPPORT COLLABORATIVE RESEARCH

SUMMARY

OCWD seeks to enter into a nondisclosure agreement with Regenesis Bioremediation Products to support collaborative research and exchange technical information regarding Regenesis' novel adsorbent. The adsorbent may have applications for PFAS water treatment.

Attachment(s): Confidential Nondisclosure Agreement with Regenesis Bioremediation Products

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board meeting: Approve and authorize General Manager to execute nondisclosure agreement with Regenesis Bioremediation Products

BACKGROUND/ANALYSIS

To address the regulation of per- and polyfluoroalkyl substances (PFAS) in drinking water, which is currently projected to impact up to 11 Producers in the District service area (approximately 70 wells), the District is completing a PFAS treatment study that includes bench- and pilot-scale testing of various treatment technologies that could be applied at groundwater wells. In addition to evaluating granular activated carbon (GAC) and ion exchange (IX), the pilot include two types of novel adsorbents that have higher capacity for adsorbing PFAS compared to GAC and IX.

Novel adsorbents that are specific to PFAS continue to be developed and introduced to the market by various companies due to the increasing attention and regulation of PFAS. The District may evaluate novel adsorbents beyond the initial two being screened in the current pilot test. Regenesis Bioremediation Products has developed one such potential adsorbent, which is a colloidal carbon called PlumeStop®.

Regenesis has requested that the District enter into a Confidential Nondisclosure Agreement. Per the terms of the agreement, Regenesis and OCWD desire to exchange

and examine certain engineering and technical data and information, know-how, patentable and unpatentable inventions, and trade secrets and confidential and/or proprietary information, and desire to collaborate on research and funding opportunities regarding testing of a novel adsorbent for PFAS water treatment.

PRIOR RELEVANT BOARD ACTION(S)

None.

CONFIDENTIAL NONDISCLOSURE AGREEMENT

This Confidential Nondisclosure Agreement (the "**Agreement**") is made this 28th day of February 2020 by and between REGENESIS BIOREMEDIATION PRODUCTS**,** a California corporation with its principal offices at 1011 CALLE SOMBRA, SAN CLEMENTE, CA 92673 ("**REGENESIS**") and Orange County Water District, a California special district with its principal offices at 18700 WARD STREET, FOUNTAIN VALLEY, CA 92708 ("**OCWD**"), with reference to the following recitals and agreements:

A. **REGENESIS** and **OCWD** desire to exchange and examine certain engineering and technical data and information, know-how, patentable and unpatentable inventions, and trade secrets and confidential and/or proprietary information (the "Confidential Information"), relating to the respective businesses of each, in order to further a potential or existing business relationship between **REGENESIS** and **OCWD**. The Confidential Information may be owned by the Disclosing Party (as defined below) or by a third party, including affiliate and subsidiary companies. The party disclosing Confidential Information and the party receiving Confidential Information shall hereinafter be referred to as the "**Disclosing Party**" and "**Receiving Party**", respectively, or collectively as the "**Parties**".

B. **REGENESIS** and **OCWD** are willing to disclose to each other the Confidential Information on the terms and conditions set forth in this Agreement.

THEREFORE, in consideration of **REGENESIS** and **OCWD** disclosing the Confidential Information to each other, **REGENESIS** and **OCWD** agree as follows:

1. The Parties acknowledge that the Confidential Information is a valuable proprietary asset of the Disclosing Party.

2. The Parties agree that disclosure of any of the Confidential Information, whether in written, oral, visual or machine-readable form, is made in strictest confidence and that:

    a. The Receiving Party will use its best efforts to maintain the Confidential Information as confidential and secret. The Receiving Party agrees to use at least the same degree of care to avoid unauthorized disclosure, use, or publication of the Confidential Information as it employs with respect to its own confidential information.

    b. To be protected by this Agreement, Confidential Information disclosed in written, graphic or other tangible form must be conspicuously labeled "Confidential" or "Confidential Information", or with a similar legend. Confidential Information disclosed in oral, visual or other tangible form must be, at the time of disclosure, clearly identified as confidential and thereafter confirmed in writing,

conspicuously labeled as described above, within fifteen (15) days after disclosure.

c. The Receiving Party may disclose the Confidential Information only to its employees and agents to whom disclosure is necessary to further the business relationship between the Parties. The Receiving Party agrees to take appropriate action (by instructions, agreement, or otherwise) with such employees and agents in order to satisfy the Receiving Party's obligations under this Agreement with respect to use, copying, protection, and security of the Confidential Information.

d. Unless disclosure is otherwise required by the California Public Records Act (CPRA) or other applicable law governing disclosure of either Party's information, the Receiving Party shall not disclose the Confidential Information to any third party outside of the Receiving Party without the prior written consent of the Disclosing Party, and without having with each such third party a confidentiality agreement with terms no less restrictive than those herein. Provided, however, the Receiving Party shall have the right to disclose the Disclosing Party's Confidential Information to the Receiving Party's affiliate and subsidiary companies and other authorized agents, subject to the Receiving Party taking reasonable precautions to ensure its affiliate companies' compliance with this Agreement.

e. Except as necessary in furtherance of the business relationship with Disclosing Party and provided that all confidential and/or proprietary legends are reproduced thereon, the Receiving Party shall not print or copy, reproduce, modify, alter, disassemble, reverse engineer or decompile the Confidential Information.

f. The Receiving Party agrees to use the Confidential Information only in furtherance of its business relationship with the Disclosing Party.

g. The Confidential Information will not be used to provoke an interference with any patent application which the Disclosing Party has filed with respect to the Confidential Information, and will not be used to amend any claim in any pending patent application to expand the claim to read on, cover, or dominate any invention (whether or not patentable) disclosed in the Confidential Information. Further, the exchange of Confidential Information pursuant to this Agreement shall not constitute or be construed as a grant of either an express or implied license or other right with respect to the Disclosing Party's patent or other intellectual property rights.

h. Subject to the limitations described in paragraph 2.d,the Receiving Party shall not otherwise use or dispose of the Confidential Information except with the prior written consent of the Disclosing

Party. The Disclosing Party's consent may be withheld in its sole and absolute discretion, and may be granted upon such terms as the Disclosing Party may establish from time to time.

i. The Confidential Information shall, at all times, remain the property of the Disclosing Party. Neither this Agreement, nor any disclosure of Confidential Information pursuant to its terms, grants to the Receiving Party a license or right to use, except as expressly provided herein, the intellectual property (including, without limitation, names, patents, trademarks or copyrighted works) owned or controlled by the Disclosing Party. The Receiving Party shall include the Disclosing Party's copyright notices and proprietary legends on all copies of Confidential Information reproduced by the Receiving Party.

j. Upon the termination of the business relationship between the Parties, or at the Disclosing Party's request, the Receiving Party shall, to the extent reasonably practicable, return to the Disclosing Party all non-electronically stored materials (including copies) comprising or including the Confidential Information and given to or in the possession or control of the Receiving Party, or shall certify in writing that such materials have been destroyed.

3. The obligations assumed by the Receiving Party shall not extend to any portion of the Confidential Information which: (a) is already known to the Receiving Party; (b) is or becomes publicly known through no wrongful act of the Receiving Party; (c) is disclosed to the Receiving Party by a third person not in violation of any obligation of nondisclosure owed to the Disclosing Party; (d) is approved for release by written authorization of a of the Disclosing Party; (e) is independently developed by the Receiving Party; (f) is rightfully acquired by the Receiving Party through no wrongful act of Receiving Party; or (g) is disclosed by the Receiving Party pursuant to the CPRA, court order, or other governmental action or legal obligation, after giving the Disclosing Party a reasonable opportunity to prevent disclosure at its own cost. The Disclosing Party has the right to make reasonable inspection of the Receiving Party's non-privileged records to determine the source of any Confidential Information claimed to be within any of the above exceptions.

4. Confidential Information disclosed hereunder may be subject to United States export laws and/or regulations. No Confidential Information shall be exported from the United States, reexported, or disclosed to any foreign national, nation, firm or country, including foreign nationals employed by or associated with the Receiving Party, without first complying with all requirements of the International Traffic In Arms Regulations or the Export Administration Regulations, including the requirement for obtaining an export license, if applicable. The Receiving Party shall first obtain the written consent from the Disclosing Party prior to submitting any request for authority to export any such Confidential Information. The Receiving Party shall indemnify, defend and hold the

Disclosing Party harmless from all claims, demands, damages, costs, fines, penalties, attorneys' fees, and other expenses arising from failure of the Receiving Party to comply with this section.

5. (1) The Parties agree that the validity, construction, and performance of this Agreement are governed by the laws of California, and that suit may be brought only in California, to enforce the terms of this Agreement. (2) If any arbitration, litigation, or other legal proceeding occurs between the Parties relating to this Agreement, the prevailing party shall be entitled to recover (in addition to any other relief awarded or granted) its reasonable costs and expenses, including attorneys' fees, incurred in the proceeding. (3) This Agreement is binding upon and inures to the benefit of the successors and assigns of the Parties. The Parties may not assign or transfer the rights or obligations granted to them under this Agreement. (4) No waiver, amendment, or modification of any provision of this Agreement shall be effective unless in writing and signed by authorized representatives of both Parties. (5) No failure or delay by the Parties in exercising any right, power, or remedy under this Agreement shall operate as a waiver of the right, power, or remedy. No waiver of any term, condition, or default of this Agreement by the Parties shall be construed as a waiver of any other term, condition, or default. (6) This Agreement may be executed in one or more counterparts, and by the Parties hereto in separate counterparts, each of which when executed shall be deemed to be an original but all of which taken together shall constitute one in the same agreement.

6. **Term and Termination.**

This Agreement shall commence as of the date first above written and shall apply to all disclosures of Confidential Information between the Parties for twenty-four (24) months thereafter, at which time this Agreement shall expire, unless earlier terminated by either Party upon providing to the other ten (10) days prior written notice. The obligations of the Receiving Party contained in this Agreement shall survive the termination or expiration of this Agreement for one (1) yearthereafter.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement to be effective as of the date and year first above written.

REGENESIS BIOREMEDIATION PRODUCTS, INC., a California Corporation

By: _____

Name: Kristen Thoreson

Title: Director of Research & Development

Date: _____

Orange County Water District, a California Special District

By: _____

Name: Vicente Sarmiento

Title: President

Date: _____

By: _____

Name: Michael R. Markus

Title: General Manager

Date: _____

By: _____

Name: Joel D. Kuperberg

Title: General Counsel

Date:_____

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Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 11, 2020

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: S. Scott-Roberts

Budgeted: Yes
Budgeted Amount: $37,850
Cost Estimate: $37,850
Funding Source: CIP, WIFIA
Program/Line Item No.: GWRSFE
General Counsel Approval: Yes
Project Report Approved: Yes
CEQA Compliance: Yes

Subject: AMENDMENT TO BLACK & VEATCH FOR DESIGN PHASE SERVICES AND NOTICE INVITING BIDS FOR THE GWRS FINAL EXPANSION PLANT 2 SECONDARY EFFLUENT PIPELINE REHABILITATION PROJECT

SUMMARY

The design for the GWRS Final Expansion Plant 2 Secondary Effluent Rehabilitation Project is currently complete. This project includes the work to slip-line the existing 66-inch pipeline that will convey secondary effluent from OCSD Plant No. 2 to GWRS. Black & Veatch (B&V) performed additional design work which included using a steel pipe liner for a portion of the slip-line project to keep construction work within the County of Orange right of way along the Santa Ana River. Therefore, staff is recommending 1) issuing amendment no. 5 to B&V for the additional design scope work; and 2) authorizing advertisement for construction bid for the GWRSFE P2 Secondary Effluent Pipeline Rehabilitation Project

Attachments: B&V Amendment No. 5 Proposal
Notice Inviting Bids

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for the March 18 Board Meeting:

1) Authorize issuance of Amendment No. 5 to Agreement No. 1248 with Black & Veatch for design phase services for the GWRS Final Expansion Project for an amount not to exceed $37,850; and

2) Authorize advertisement of Notice Inviting Bids for the GWRS Final Expansion Plant 2 Secondary Effluent Pipeline Rehabilitation Project

DISCUSSION/ANALYSIS

The current GWRS facility has capacity to produce 100 MGD of purified water. GWRS currently receives all of its influent water from OCSD Reclamation Plant No. 1 (Plant 1) in Fountain Valley directly adjacent to GWRS. The GWRS facility was originally designed to accommodate a final expansion that would increase the treatment capacity

to 130 MGD of purified water. This expansion is referred to as the GWRS Final Expansion Project (GWRSFE).

In order to produce 130 MGD of purified water through the GWRS treatment facility, sufficient secondary effluent from OCSD is required for source water. This secondary effluent source water for GWRS must be received from OCSD's Treatment Plant 2 (Plant 2). OCSD's Plant 2 facility is located in the City of Huntington Beach, approximately 4 miles from the GWRS facility. Therefore, in addition to expanding the GWRS treatment facility from 100 MGD to 130 MGD production capacity, conveyance facilities must be constructed to deliver the additional secondary effluent required for the GWRSFE Project. Figure 1 below shows the proposed conveyance facilities of the secondary effluent from OCSD's Plant 2 facility.

Figure 1 – OCSD Plant 2 Secondary Effluent Conveyance to GWRS

The Plant 2 secondary effluent pump station will be a new facility located adjacent to the OCSD digesters at Plant 2. The secondary effluent conveyance pipeline will be constructed within an existing 66-inch Reinforced Concrete Pipe (RCP) owned by OCSD. The 66-inch RCP is currently not being used by OCSD and is being proposed to be slip-lined with a new pipeline of smaller diameter for pressurized conveyance of the

secondary effluent from Plant 2 to GWRS. This work is referred to as Contract 2 – the Plant 2 Secondary Effluent Pipeline Rehabilitation Project.

In addition to raw wastewater, OCSD's Plant 2 facility receives water from the Santa Ana Regional Interceptor (SARI) pipeline. The flows within the SARI pipeline are made up of comingled raw wastewater, desalter brine wastes, concentrated waste streams, and effluent from the Stringfellow Hazardous Waste site in Riverside County. These flows are currently not allowed to be used as source water for recycling through the AWTF by the Regional Water Quality Control Board permit to operate GWRS.

Since these SARI flows are currently not allowed to be recycled through GWRS, they will have to be segregated and treated separately from the other raw wastewater trunk sewer flows that flow into Plant 2. This SARI segregation involves the construction of a bypass pipeline and separate headworks facility for the SARI flows. Once the SARI flows are segregated through the new headworks facility – the SARI flows will continue to be treated separately through the existing OCSD Plant 2 Pure Oxygen Activated Sludge (POAS) treatment train. The SARI flows will be treated separately through this POAS treatment facility and discharged through the OCSD's Ocean Outfall.

OCSD's Plant 2 facility has a second treatment train, referred to as the Trickling Filter/Solids Contact (TF/SC) facility. This facility is being proposed to take all the raw wastewater that currently flows to Plant 2 and treat these flows for recycling through GWRS. The TF/SC effluent flows will be conveyed in a pump station and pipeline to GWRS as the additional source water required for the GWRSFE Project.

Similar to the Secondary Effluent Flow Equalization (SEFE) Tanks as part of the existing GWRS facility, the GWRS Final Expansion Projects will include a flow equalization tanks at OCSD Plant 2. The flow equalization tanks at Plant 2 would operate similar to the SEFE tanks for GWRS, where OCSD peak flows would be captured during the day and sent to GWRS at night for increased overall production.

Therefore, the following are all the projects that will be required to produce 130 MGD of purified water through GWRS Final Expansion:

Advanced Water Treatment Facility (AWTF) Expansion
Plant 2 Effluent Pump Station
Plant 2 Secondary Effluent Pipeline Rehabilitation Project
Plant 2 Flow Equalization Tanks
Plant 2 OCSD Headworks Modification

The design of the GWRSFE Project was awarded to Black & Veatch (B&V) on July 19, 2017. As part of the scope of the design – B&V was to develop construction documents for two contracts as part of the GWRS Final Expansion Project. Contract 1 includes the AWTF Expansion; Plant 2 Effluent Pump Station; and the Plant 2 Flow Equalization Tanks components. This project was bid and awarded to Shimmick Construction Co. with a Notice to Proceed issued on November 2, 2019. This contract is scheduled to be complete on February 14, 2023. Contract 2 includes the Plant 2 Secondary Effluent Pipeline Rehabilitation Project component. The final design for this Contract 2 - Plant 2 Secondary Effluent Pipeline Rehabilitation Project was received by staff on February 28, 2020. The Engineer's Estimate for this project is between $16 - $18 million depending

on the pipe material chosen after bid. Therefore, with the design complete, staff is recommending advertising the GWRS Final Expansion Plant 2 Secondary Effluent Pipeline Rehabilitation Project to solicit public bids. The construction duration for this project is estimated to be approximately 1 year and should be started and completed within the construction duration of Contract 1.

As part of Contract 2 – the existing 66-inch pipeline alignment – which is to be slip-lined is within the County of Orange Flood Control District property. The slip-line work requires excavation of access pits along the pipeline alignment to install the new smaller diameter pipeline within the existing 66-inch host pipeline. Per the distance constraints between access pits for slip-lining, some of the access pits were slated to be located within the County of Orange Flood Control District property and also within the Santa Ana River (SAR) Right-of-Way. Staff met with the County of Orange Flood Control District and the Army Corps of Engineers to determine what impacts the locations of these access pits may have on their jurisdiction. It was recommended to OCWD to redesign the access pit locations to ensure they stay out of the SAR Right-of-Way and then there should be no requirements for an Army Corps permit. Staff directed B&V to complete this design task. B&V completed the out-of-scope design work in the amount of $37,850 and was able to place the access pits farther apart to avoid being located within the SAR Right-of-Way using steel pipe as the slip-liner for a portion of the work. Therefore, staff is recommending issuing amendment no. 5 to B&V in the amount of $37,850 for this extra design work.

Table 1 below shows the current project budget with the amendment no. 5 for Black & Veatch included. No revisions to the project budget are required since the amendment was budgeted within the project contingency. Also, the engineer's estimate for the P2 Pipeline Rehabilitation Project is within the budgeted amount shown in the table below.

Table 1 – GWRS Final Expansion Project Budget

Description	Budget
Pre-Design	
Studies/CEQA for GWRSFE Projects	$1,000,000
Design Engineering Services	
B&V Agreement including Amendments 1-4	$13,663,900
B&V Amendment No. 5	***$37,850***
Construction Management/Inspection	
Butier/Carollo CM Agreement	$8,500,000
Specialty/Materials Construction Inspection	$1,500,000
Total CM and Inspection	**$10,000,000**
Construction	
Contract 1	
AWTF Expansion Construction	$123,776,159
P2 Effluent Pump Station Construction	$54,611,819
P2 Flow Equalization Tank Construction	$21,554,022
Contract 2 - P2 Pipeline Rehabilitation Construction	$20,400,000
Total Construction Phase	**$220,342,000**
Engineering Support, Legal & Administration	
SPI Agreement (Process Support)	$792,817

Legal/Admin/Engineering Support	$2,584,183
Total ELA	**$3,377,000**
Construction Contingency	$11,883,250
OCSD Headworks Modification Project	$50,000,000
TOTAL	**$310,304,000**

PRIOR BOARD/COMMITTEE ACTIONS

09/21/2016 R16-09-128 - Adopt resolution establishing the GWRS Final Expansion Project which includes the following actions: Adopt findings with respect to the California Environmental Quality Act; Determine project feasible and necessary and of general benefit to the lands in the District and deem project duly instituted; Approve the GWRS Final Expansion Engineer's Report and project budget; and Authorize filing of Notice of Determination

07/19/17 R17-7-106 - Authorize issuance of agreement with Black & Veatch for an amount not to exceed $5,663,000 for the design of the GWRS Final Expansion Project

04/04/18 R18-4-36 – Authorize issuance of amendment no. 1 to Black & Veatch for an amount not to exceed $921,300 for the design of the GWRS Final Expansion Project

09/19/18 R18-9-125 - Revise the Project Budget for the GWRS Final Expansion Project from $252,800,000 to $292,118,000; Authorize issuance of amendment no. 2 to agreement no.1248 with Black & Veatch for design phase services for the GWRS Final Expansion Project for an amount not to exceed $386,900

11/07/18, R18-11-161 - Authorize issuance of agreement with Butier Engineering, Inc. for an amount not to exceed $8.5 million for construction management services for the GWRS Final Expansion Project; Authorize issuance of amendment no. 3 with Black & Veatch for design services during construction for the GWRSFE Project in the amount not to exceed $6,394,000; Authorize issuance of amendment no. 2 with Separation Processes Inc. for treatment process commissioning services during construction of the GWRSFE Project in the amount not to exceed $677,817

03/20/19, R19-3-42 - Authorize issuance of amendment no. 4 to agreement no. 1248 with Black & Veatch for design phase services for the GWRS Final Expansion Project for an amount not to exceed $298,700

09/04/2019, R19-9-131 - Receive and file Affidavit of Publication of the Request of Prequalification of Bidders for Contract No. GWRS-2019-01, Groundwater Replenishment System Final Expansion Project, ratify issuance of Addendum Nos. 1, 2, 3, 4, and 5; and accept bid of Shimmick Construction Company; reject bid protest of WM Lyles; and approve award of Contract No. GWRS-2019-01 to Shimmick Construction Company, Inc. for an amount not to exceed $199,942,000; Authorize issuance of Agreement to Converse Consultants in the amount of $1,277,820 for special inspection and materials testing services during construction of the GWRS Final Expansion Project; and approve revised Project Budget of $310,304,000

Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 12, 2020

To: Administration/Finance Issues Cte.
Board of Directors

From: Mike Markus

Staff Contact: R. Fick/V. Sharma

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: N/A
Funding Source: N/A
Program/Line Item No.: N/A
General Counsel Approval: N/A
Engineers Report: N/A
CEQA Compliance: N/A

Subject: **MONTHLY CASH CONTROL REPORT**

SUMMARY

The following monthly financial information is provided in the staff report.

Attachment(s):
- Summary Cash and Cash Equivalent Control Report
- Summary of Reserves
- Summary Sources and Disbursements
- Sources of Funds
- Disbursement of Funds

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board meeting: Receive and file Summary Cash and Cash Equivalents Control Reports dated February 29, 2020.

PRIOR RELEVANT BOARD ACTION(S) Monthly

Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 12, 2020

To: Administration/Finance Issues Cte.
Board of Directors

From: Mike Markus

Staff Contact: R. Fick/V. Sharma

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: N/A
Funding Source: N/A
Program/Line Item No: N/A
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: INVESTMENT PORTFOLIO HOLDINGS REPORTS

SUMMARY

The District's monthly Investment Portfolio Holdings Report is provided for Committee review.

Attachment(s): Investment Portfolio Holdings Reports dated February 29, 2020.

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board meeting: Receive and file the Investment Portfolio Holdings Reports dated February 29, 2020.

BACKGROUND/ANALYSIS

The Investment Portfolio Holdings Report is a list of each of the District's fixed income investments and provides the market value at the end of each month. All securities within the District's Investment Portfolio are in compliance with the District's Statement of Investment Policy. The District's portfolio maturities provide cash liquidity sufficient to meet the District's projected six-month expenditures (as required by Government Code Section 53646).

Highlights of the current and previous report:

Description	Prior Month	Current Month
SWAP Value (in Citi's favor)	$20,384,272	$22,609,783
Required Collateral	$5,384,272	$7,609,783
Duration/Maturity	528 Days or 1.45 years	468 Days or 1.28 years
Rate of Return/Yield	1.941%	1.883%

- The yield on the one-year Treasury note as of the month end is at 0.97%; two-year at 0.86% and the five-year at 0.89%.

- Fed chairman cut the Federal funds rete by 50 basis point on March 3rd to curb

the market volatility due to coronavirus concerns, in the range of 1.00% to 1.25%. This is the rate prime banks lend to each other.

AGENDA ITEM SUBMITTAL

Meeting Date: March 12, 2020

To: Administration/Finance Issues Cte.
Board of Directors

From: Mike Markus

Staff Contact: J. Kennedy

Budgeted: Yes
Budgeted Amount: $47,100
Cost Estimate: $53,100.32
Funding Source: General Fund
Program/Line Item No.: 1010.51102
General Counsel Approval: Yes
Engineers Report Approved: N/A
CEQA Compliance: N/A

Subject: MEMORANDUM OF UNDERSTANDING WITH CALIFORNIA STATE UNIVERSITY, FULLERTON (CSUF) AUXILIARY SERVICES CORPORATION FOR THE CONTINUED OPERATION OF THE CENTER FOR DEMOGRAPHIC RESEARCH

SUMMARY

The District has annually participated in the funding of the California State University Fullerton (CSUF) Auxiliary Services Corporation for the continued operation of the Center for Demographic Research (CDR) since FY1997-98. The attached Memorandum of Understanding (MOU) would commit the District for an additional three years.

Attachment(s):
- Three Year MOU with CSUF Auxiliary Services

RECOMMENDATION

Agendize for March 18 Board meeting:

1) Approve and authorize execution of Memorandum of Understanding with California State University, Fullerton Auxiliary Services Corporation for the Continued Operation of the Center for Demographic Research renewing commitment for the period of July 1, 2020 - June 30, 2023; and

2) Authorize payment in the amount of $53,100.32 to California State University Fullerton Auxiliary Services Corporation, to be invoiced on a quarterly basis.

DISCUSSION/ANALYSIS

Located at CSUF, the CDR is the local area expert in developing demographic projections and associated products for Orange County. The CDR develops demographic and other related information for a wide range of local, sub-regional and regional applications in Orange County.

The District and MWDOC have evenly shared (50/50) an annual financial sponsorship since FY 1997-98. The CDR was originally developed in response to the County of Orange bankruptcy and the elimination of the County's Demographics Department. The Orange County Fire Authority was an original member of the CDR but subsequently withdrew their support also due to budget issues. The District and MWDOC then jointly stepped in to replace the Fire Authority funding.

With the shared membership, OCWD appoints an individual to the CDR Technical Advisory Committee. MWDOC appoints an individual to the CDR Management Action Committee.

The demographic information and data generated by the CDR is used for general planning work and available, at no cost, to all sponsors (including the District) and contributing partners. The typical information and data the CDR annual produces and compiles for various products by different jurisdictions (city, county, water district) is listed below:

- Population, Housing & Employment projections
- Economic and Labor force characteristics
- Voter registration
- Building permits and valuations
- Ethnicity trends
- Birth and death rates
- Public school enrollment
- Employment

The annual sponsorship from various participating agencies for FY 2020-21 is shown below:

Funding Agency	FY2020-21
Orange County Transportation Authority	$ 106,200.64
County of Orange	$ 106,200.64
Orange County Council of Governments	$ 106,200.64
Orange County Local Agency Formation Commission	$ 17,000.00
Orange County Sanitation District	$ 106,200.64
Transportation Corridor Agencies	$ 106,200.64
Southern California Association of Governments	$ 106,200.64
Municipal Water District of Orange County (1/2 share)	$ 53,100.32
Orange County Water District (1/2 share)	$ 53,100.32
Total	**$ 760,404.48**

PRIOR RELEVANT BOARD ACTION(S)

3/20/19, Approved Amendment to MOU with CSUF

3/21/18, R18-3-28: Approve Amendment to MOU with CSUF

3/15/17, R17-3-38: Approved MOU with CSUF for additional three year commitment.

3/12/15, R15-3-38: Approve Amendment No. 1 to MOU with SCUF Auxiliary Services Corporation for continued operation of Center for Demographic Research annual sponsorship of $39,739 for FY 2015-16.

06/15/11, R11-6-92: Approve MOU and reauthorize annual sponsorship of $38,619 for fiscal year 2011-12

04/21/10, R10-4-62: Approve MOU with CSUF Auxiliary Services Corporation for continued participation in the California state university, Fullerton Center for Demographic Research annual sponsorship of $38,000 for FY 2010-11.

05/27/09, R09-05-96: Approve Amendment No. 4 to MOU and reauthorize annual sponsorship of $35,500 for fiscal year 2009-10

07/16/08, R08-07-100: Approve Amendment No. 3 to MOU and reauthorize annual sponsorship of $30,736 for fiscal year 2008-09

07/18/07, R07-07-102: Approve Amendment No. 2 to MOU and reauthorize annual sponsorship of $28,599 for fiscal year 2007-08

07/19/06, R06-07-86: Approve 2006-09 MOU and reauthorize annual sponsorship of $27,501 for fiscal year 2006-07

11/02/05, R05-11-127: Approve Amendment No. 3 to MOU for 2005-06 sponsorship of $22,740 for FY 2005-06

07/12/04, R04-07-96: Approve Amendment No. 2 to MOU and reauthorize annual sponsorship of $22,158 for fiscal year 2004-05

09/17/03, R03-09-134: Approve Amendment to MOU and reauthorize annual sponsorship of $21,636 for fiscal year 2003-04

06/19/02, R02-06-91: Approve Amendment No. 2 to MOU and reauthorize annual sponsorship of $20,065 for fiscal year 2002-03

06/20/01, R01-06-98: Approve annual Board authorization of sponsorship payments at 6/20/2001 Board Meeting (R2000-6-82; R97-9-123)

06/21/00, R00-06-82: Approve and authorize renewal of MOU with CSUF Foundation for three year sponsorship ending June 30, 2003

06/16/99, R99-06-76: Approve Amendment No. 1 to MOU and reauthorize annual sponsorship of $15,000 for fiscal year 1998-2000

07/01/98, R98-07-96: Approve and authorize execution of Memorandum of Understanding for continued operation of Center for Demographic Research at annual sponsorship fee for OCWD in amount of $15,000

AGREEMENT NO.

MEMORANDUM OF UNDERSTANDING
by and between
ORANGE COUNTY INTERESTS
and
CSU FULLERTON AUXILIARY SERVICES CORPORATION
for the
CONTINUED OPERATION OF THE CENTER FOR DEMOGRAPHIC RESEARCH AT CALIFORNIA STATE UNIVERSITY, FULLERTON

This Memorandum of Understanding ("MOU") is entered into between the County of Orange, Transportation Corridor Agencies, Orange County Sanitation District, Orange County Transportation Authority, Municipal Water District of Orange County, Orange County Water District, Orange County Council of Governments, Southern California Association of Governments ("SPONSORS"); the Orange County Local Agency Formation Commission ("CONTRIBUTING PARTNERS") and the CSU Fullerton Auxiliary Services Corporation, ("ASC"), which is a 501 (c)3 California corporation organized under California law as an auxiliary organization of California State University, Fullerton ("CSUF"). This MOU is for the development of demographic data and related support products. Obligations and rights specified for CSUF in the MOU shall be exercised by the ASC.

WHEREAS, the development of demographic and related information for Orange County is a vital data source used for a wide range of local, subregional and regional applications, including, transportation infrastructure planning, facilities planning and timing, development of fee programs, bond revenue stream analysis, general planning and other applications; and

WHEREAS, a number of primary users of data in Orange County have recognized the benefit of having a local area expertise in developing demographic projections and associated products; and

WHEREAS, these SPONSORS, CONTRIBUTING PARTNERS, and CSUF agree on the importance of having a single entity in Orange County developing demographic products and providing such products to data users; and

WHEREAS, these agencies also desire to establish a long-term process which allows each individual agency participation in the development and review of demographic products; and

WHEREAS, the Center for Demographic Research ("CDR") located at CSUF provides an opportunity to place demographic activities in a setting that accomplishes SPONSORS' and CONTRIBUTING PARTNERS' objectives and provides augmented educational opportunities for CSUF; and

WHEREAS, CSUF will be listed as a "SPONSOR" based upon their financial contribution as outlined in the budget in Attachment 1 and in-kind contributions for the balance of the remaining Sponsor seat; and

WHEREAS, the SPONSORS have worked cooperatively in supporting and organizing the Center for Demographic Research for 24 years and wish to continue their cooperation; and

WHEREAS, the CONTRIBUTING PARTNERS wish to participate in supporting the Center for Demographic Research beginning in Fiscal Year 2020/2021; and

NOW, THEREFORE, IT IS RESOLVED that the **SPONSORS, CONTRIBUTING PARTNERS**, and the **ASC** agree as follows:

I. The SPONSORS and CONTRIBUTING PARTNERS will fund the CDR for the next three years, subject to an annual review and two one-year options by the SPONSORS and CONTRIBUTING PARTNERS, for an annual total fee as set forth in Item IV below and Attachment 1.

II. Process and Structure

A. Orange County Projections

The Orange County Council of Governments ("OCCOG") will be responsible for the approval of the Orange County Projections at the Regional Statistical Area level and subsequent to that action the County of Orange will approve the Orange County Projections. The OCCOG will work with CDR staff to integrate the Orange County Projections as approved into the Southern California Association of Governments ("SCAG") Regional Growth Forecast. Sponsors will make good faith efforts to use the Orange County Projections data in all future forecasting and planning efforts.

B. Management Oversight

The Management Oversight Committee ("MOC") shall meet at least four (4) times each year to (1) consider policy matters associated with the operations of the Center for Demographic Research, (2) review products status and activities which are part of the core Work Program, (3) review the Center for Demographic Research's financial status and status of annual MOU signatures, (4) set CDR budget and modify staff salaries funded by this MOU (5) consider requests from additional agencies wishing to become sponsors or contributing partners, (6) modify budget and work program upon addition or termination of a sponsor or contributing partner, (7) address other matters vital to the function of the Center for Demographic Research, and (8) undertake additional tasks as requested by the SPONSORS.

The Management Oversight Committee will be comprised of staff representing the SPONSORS, CONTRIBUTING PARTNERS and CSUF. Each SPONSOR will have one voting member of equal standing on the Management Oversight Committee including one member jointly representing the Municipal Water District of Orange County and the Orange County Water District; each CONTRIBUTING PARTNER will have one non-voting Ex-Officio member. The designees from each SPONSOR, CONTRIBUTING PARTNER, and the university shall be named by

July 1 of each year. An organization may also designate an individual(s) to serve as an alternate member of the Management Oversight Committee. The committee chair and vice-chair will be elected for a three-year term.

C. Technical Oversight:

The Technical Advisory Committee ("TAC") provides technical guidance and input into the development of each product produced under this MOU before they are reviewed by the Management Oversight Committee. The Technical Advisory Committee advises the Director of the Center for Demographic Research, as well as reports to the Management Oversight Committee. The Committee will include one voting representative from each SPONSOR including a member representing the Municipal Water District of Orange County and the Orange County Water District; each CONTRIBUTING PARTNER will have one non-voting Ex-Officio member. University participation on the Technical Advisory Committee will include at least one voting member from CSUF, and one voting member each from the University of California, Irvine and Chapman University. The Director of the Center for Demographic Research will coordinate with research centers at these universities to ensure data consistency. The designees from each SPONSOR, CONTRIBUTING PARTNER, and agency shall be named by July 1 of each year. The committee chair and vice-chair will be elected for a three-year term.

The Technical Advisory Committee shall schedule at least four (4) meetings each year. It will (1) provide a report to the Management Oversight Committee summarizing its meetings, (2) provide advice on the approach, techniques, data sources and methods used to develop new products, (3) facilitate the acquisition of data necessary to produce products, (4) provide suggestions on the interpretation and analysis incorporated into deliverables, (5) provide input on assumptions for the development of the growth projections, (6) provide review of deliverables prior to approval by the Management Oversight Committee and (7) undertake other tasks as identified by the Management Oversight Committee.

D. Transportation Modeling Data

The Orange County Transportation Authority ("OCTA") will be responsible for the approval of all transportation modeling variables used in the Orange County Transportation Analysis Model ("OCTAM") at the Traffic Analysis Zone level. The transportation modeling variables shall be consistent with the Orange County Projections, as approved by the Orange County Council of Governments and the County of Orange at the Regional Statistical Area Level. The OCTA and SCAG will exercise user agreements for their consultants to access the transportation modeling variables.

III. Duration and Terminations

This agreement will become effective upon execution and ends on June 30, 2023. A review of the performance of the Center for Demographic Research in meeting its obligations under this MOU will be conducted by the Management Oversight Committee throughout the term July 2020 through June 2023. This MOU may be extended and/or amended by mutual agreement of all signatories.

A party may terminate its participation under this MOU by giving each of the other parties sixty (60) days written notice thereof. Upon said notice of termination, the SPONSOR or CONTRIBUTING PARTNER terminating its participation shall pay the balance of fees owed by the SPONSOR or CONTRIBUTING PARTNER for that given fiscal year. Each fiscal year, the SPONSORS and CONTRIBUTING PARTNERS shall review and approve in writing the MOU, work program, and funding arrangement. Such written approval shall constitute a SPONSOR'S or CONTRIBUTING PARTNER'S agreement to participate in this Agreement. In the event that ASC wishes to terminate its participation, it shall reimburse the SPONSORS and CONTRIBUTING PARTNERS any advance payments, less an amount to cover expenses related to work in progress and less costs reasonably necessary to effect such termination. If a party wishes to withdraw from the agreement, said notice shall be affected by delivery of such notice in person or by depositing said notice in the United States mail, registered or certified mail, return receipt required, postage prepaid.

IV. Funding and Schedule

Respective fees shall be as follows for the following fiscal year:

Payment Schedule for 2020-2023	**2020-2021**	**2021-2022**	**2022-2023**	**Three-Year Total**
Orange County Transportation Authority	$106,200.64	$110,378.62	$114,924.00	$331,503.26
County of Orange	$106,200.64	$110,378.62	$114,924.00	$331,503.26
Orange County Council of Governments	$106,200.64	$110,378.62	$114,924.00	$331,503.26
Orange County Sanitation District	$106,200.64	$110,378.62	$114,924.00	$331,503.26
Transportation Corridor Agencies	$106,200.64	$110,378.62	$114,924.00	$331,503.26
Southern California Association of Governments	$106,200.64	$110,378.62	$114,924.00	$331,503.26
Municipal Water District of Orange County	$53,100.32	$55,189.31	$57,462.00	$165,751.63
Orange County Water District	$53,100.32	$55,189.31	$57,462.00	$165,751.63
Orange County Local Agency Formation Commission	$17,000.00	$17,000.00	$17,000.00	$51,000.00
NON-CSUF TOTAL	**$760,404.48**	**$789,650.34**	**$821,468.00**	**$2,371,522.82**
California State University, Fullerton	$97,213.96	$98,782.60	$98,782.60	$294,779.16
TOTAL	**$857,618.44**	**$888,432.94**	**$920,250.60**	**$2,666,301.98**

Payments shall be made in accordance with invoicing policies of the ASC according to the schedule below. SPONSORS and CONTRIBUTING PARTNERS will be invoiced at the beginning of each quarter. Quarterly payments equal to 25% of the annual fees shall follow invoices submitted according to the calendar below:

Fiscal Year 2020/2021:	July 2020, October 2020, January 2021, April 2021
Fiscal Year 2021/2022:	July 2021, October 2021, January 2022, April 2022
Fiscal Year 2022/2023:	July 2022, October 2022, January 2023, April 2023

SPONSORS and CONTRIBUTING PARTNERS shall pay one-quarter of their annual fees upon receipt of said invoices or may prepay for an entire fiscal year. Prepayment does not imply a discounted rate.

V. Administrative Representatives

A. The Principal Investigator for the operations and management of the Center for Demographic Research and the conduct of this MOU is Deborah Diep, Director. The Assistant Director, Rubaiya Zaman, will serve as the Principal Investigator in the Director's absence. They are authorized to negotiate supplemental services with the SPONSORS, CONTRIBUTING PARTNERS, and Non-sponsors as noted in Section VII. Sydney Dawes, Director, ASC Office of Sponsored Programs is designated as the administrative representative for the ASC. Should the Principal Investigators become unavailable for any reason, no other Principal Investigator shall be chosen by CSUF or the ASC without the approval of the SPONSORS. Furthermore, the ASC agrees that the Management Oversight Committee shall make the recommendation on the selection of the Director or interim Director of the Center for Demographic Research and no Director or interim Director shall be appointed without approval of the Management Oversight Committee. The Management Oversight Committee will serve as the search committee if a search committee for the Director is required by the ASC.

B. Equipment and furniture purchased by ASC under the terms of this MOU shall remain the property of the SPONSORS. In the event that the Center for Demographic Research is disbanded, the equipment remains the property of the SPONSORS and the Management Oversight Committee shall determine its disposition.

C. Databases and applications developed and maintained for the Center for Demographic Research purposes shall remain under control of the SPONSORS. In the event that Center for Demographic Research is relocated from CSUF, all Center for Demographic Research functions and designations shall accompany the Center for Demographic Research.

VI. Additional Sponsorships and Revenues

Other agencies and entities can become sponsors or contributing partners of the Center for Demographic Research with unanimous agreement among the SPONSORS as determined by a vote of the Management Oversight Committee. Adjustments in sponsor fees found necessary resulting from the addition of sponsors shall be determined by the Management Oversight Committee with consultation from the Center for Demographic Research Principal Investigators.

The disposition of additional revenues generated through additional sponsors, and the sale of products and services to non-sponsors shall be determined by the Management Oversight Committee. The additional funds shall be prorated according to the respective sponsor fee. SPONSORS shall have the option of expending their share of the additional funds on CDR activities, products or equipment or having the funds returned to the SPONSORS at the end of the fiscal year.

VII. Products and Deliverables

A. The Center for Demographic Research will produce the identified core Demographic Products and Services as described in Attachment 2 and listed in Attachment 3. Each SPONSOR will receive ten (10) copies in printed form and one (1) copy of estimates and projections in electronic form.

B. The SPONSORS and CONTRIBUTING PARTNERS have the right to request supplemental products and support services from the Center for Demographic Research through a purchase order. Projects above the amount of $25,000 shall be approved by the ASC. Such purchases may be entered into if the SPONSOR or CONTRIBUTING PARTNER agrees to pay ASC all additional costs resulting from the additional products or services, including an indirect cost of 22%, and if the activities do not interfere with the normal functioning of the CDR. If requests for additional products or services require interference with the normal functioning of the CDR as determined by the Management Oversight Committee or additional resources from the CDR's basic budget the proposal for such products and services will be forwarded to the Management Oversight Committee for their advice and consent prior to finalization of the agreement. In all cases, supplemental work for SPONSORS and CONTRIBUTING PARTNERS shall be assessed indirect costs of 22%.

C. Non-sponsors can contract with the Center for Demographic Research through the ASC for its services or obtain supplemental products and support services from the Center for Demographic Research through a Non-sponsor purchase order. A list of these projects will be submitted to the MOC on a quarterly basis. If the Director assesses a proposed project contains a conflict of interest, conflict of time commitment, or interference with the normal functioning of CDR, the Management Oversight Committee will be informed of the request for services and will review it for any potential conflicts. The Director shall notify the Management Oversight Committee of any such proposed agreement and provide the committee with draft text and budget, before the intended start of work. The Management Oversight Committee shall review the proposed project for possible conflicts of interests, conflicts of time commitment, and budgetary adequacy. The Management Oversight Committee may at its discretion impose a surcharge of funds to be used at its discretion. Action on these matters may be taken only with the concurrence of a majority of the members of the Management Oversight Committee and all such supplemental work for Non-sponsors shall be assessed normal indirect costs of 22%.

D. Use of revenues generated by the sale of products produced by the Center for Demographic Research shall be determined by the Management Oversight Committee. A quarterly report on product sales will be presented to the Management Oversight Committee.

E. Additional projects should not adversely affect the schedule of deliverables unless otherwise agreed to by the Management Oversight Committee.

VIII. Sponsorship

This Agreement shall be signed by all SPONSORS and CONTRIBUTING PARTNERS by June 30, 2020 with the exception of the Southern California Association of Governments. The Southern California Association of Governments shall sign this Agreement by September 30, 2020. If all SPONSORS and CONTRIBUTING PARTNERS listed in Section XVIII do not sign by September 30, 2020, the work program and budget will be modified to reflect the committed funding. If any SPONSOR or CONTRIBUTING PARTNER does not sign this Agreement, the funding amounts of the remaining SPONSORS and CONTRIBUTING PARTNERS will not change. The remaining SPONSORS and CONTRIBUTING PARTNERS are not required to make up the difference in the reduced budget. Any SPONSOR or CONTRIBUTING PARTNER listed as an ORANGE COUNTY INTEREST that does not sign this Agreement forfeits all rights, services, and privileges as a CDR SPONSOR or CONTRIBUTING PARTNER unless otherwise negotiated. A formal status report on execution will be delivered at each Management Oversight Committee meeting until all SPONSORS and CONTRIBUTING PARTNERS sign this Agreement.

IX. Liability and Insurance

Each party to this MOU hereby assumes any and all risks for personal injury and property damage attributable to the negligent acts or omissions of that party and the officers, employees, and agents thereof. ASC warrants that it has adequate Worker's Compensation Insurance and liability insurance for its own employees. The ASC, the SPONSORS (the County of Orange, Transportation Corridor Agencies, Orange County Sanitation District, Orange County Transportation Authority, Municipal Water District of Orange County, Orange County Water District, Orange County Council of Governments, and Southern California Association of Governments), and the CONTRIBUTING PARTNERS (the Orange County Local Agency Formation Commission) agree to indemnify and hold each other, their respective officers, employees, students, agents, harmless from and against all liability, loss, expense (including reasonable attorney's fees), or claims for injury of damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, attorney's fees, or claims for injury or damages are caused by or result from negligent or intentional acts or omissions of the indemnifying party, its officers, employees, students or agents.

X. Independent Contractor

In the performance of all services and obligations under this agreement, SPONSORS, CONTRIBUTING PARTNERS, and ASC shall act as independent contractors. None shall be considered an employee or agent of the other.

XI. Use of Names

SPONSORS and CONTRIBUTING PARTNERS agree not to use the names of the ASC or CSUF in any commercial connection with work performed under this Agreement without prior written permission from the ASC. SPONSORS and CONTRIBUTING PARTNERS may use said names in ordinary internal business reports concerning this Agreement and may use the names of the Center for Demographic Research and the Principal Investigators in non-commercial publicity announcing the results of the project.

ASC agrees not to use the names of SPONSORS and/or CONTRIBUTING PARTNERS in any commercial connection with this work without prior written permission from SPONSORS and/or CONTRIBUTING PARTNERS. ASC may use SPONSORS' and/or CONTRIBUTING PARTNERS' name in ordinary internal business reports concerning this agreement and in non-commercial publicity announcing the awarding of the contract.

The provisions of this Section of the Agreement shall survive for two (2) years beyond any termination date specified in Section III or any extension thereof.

XII. Force Majeure

SPONSORS, CONTRIBUTING PARTNERS, and ASC shall not be liable or deemed to be in default for any delay or failure in performance under this Agreement or interruption of services resulting, directly or indirectly, from acts of God, civil or military authority, acts of public enemy, strikes, labor disputes, or any similar cause beyond the reasonable control of SPONSORS, CONTRIBUTING PARTNERS, or ASC, provided the affected party notifies the other party of the delay in writing within ten days of the onset of the delay.

XIII. Assignment

This Agreement shall inure to the benefit of and be binding upon and enforceable by the parties and their successors and permitted assigns. However, neither party may assign any of its rights or obligations under this Agreement without the prior written consent of the other.

XIV. Modification and Waiver

None of the terms of the Agreement may be waived or modified except by an express agreement in writing signed by SPONSORS, CONTRIBUTING PARTNERS, and ASC. Modifications not documented in writing cannot be enforced. The failure or delay of either party in enforcing any of its rights under this Agreement shall not be deemed a continuing waiver or a modification by such party of such right.

XV. Governing Law

The validity and interpretation of this Agreement shall be governed by the laws of the State of California.

XVI. Federal Statutes Relating to Nondiscrimination

ASC will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S. C. sections 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S. C. section 794), which prohibits discrimination on the basis of handicaps; (d) Age discrimination Act of 1975, as amended (42 U.S.C. sections 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970 (P.O. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) sections 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-d and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. section 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (I) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirement of any other federal nondiscrimination statue(s) which may apply to the application.

XVII. Notices

Notices under this agreement shall be considered to be given if delivered by first class mail to the following addresses:

For SPONSORS:

Jessica Witt
County of Orange
10 Civic Center Plaza, 3rd Floor
Santa Ana, CA 92701

Marnie O'Brien Primmer
Orange County Council of Governments
3972 Barranca Pkwy, Suite J-127
Irvine, CA 92606

James D. Herberg
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92738-8127

Kurt Brotcke
Orange County Transportation Authority
550 S. Main Street
2nd Floor
Orange, CA 92868

Kome Ajise
Southern California Association of Governments
c/o Justine Block, SCAG Acting Chief Counsel
900 Wilshire Blvd., Suite 1700
Los Angeles, CA 90017

Valarie McFall
Transportation Corridor Agencies
125 Pacifica, Suite 100
Irvine, CA 92618-3304

Robert Hunter
Municipal Water District of Orange County
18700 Ward Street
Fountain Valley, CA 92728

Michael R. Markus
Orange County Water District
18700 Ward Street
Fountain Valley, CA 92728-8300

Danny C. Kim
Administration and Finance, California State University, Fullerton
800 N. State College Blvd., LH-802
Fullerton, CA 92831-3599

For CONTRIBUTING PARTNERS:

Carolyn Emery
Orange County Local Agency Formation Commission
2677 N. Main Street, Suite 1050
Santa Ana, CA 92705

For CSU FULLERTON AUXILIARY SERVICES CORPORATION

Sydney Dawes, Director, ASC Office of Sponsored Programs
CSU Fullerton Auxiliary Services Corporation
1121 N. State College Blvd.
Fullerton, CA 92831-3014

XVIII. Execution

IN WITNESS THEREOF, the SPONSORS, CONTRIBUTING PARTNERS, and the ASC have executed this Agreement on the date first herein written. This Agreement is to be signed in counter parts.

For the CSU Fullerton Auxiliary Services Corporation:

_____ _____
Charles D. Kissel, Executive Director Date

For the County of Orange:

_____ _____
Frank Kim, County Executive Officer Date

For the Orange County Council of Governments:

_____ _____
Marnie O'Brien Primmer, Executive Director Date

For the Orange County Sanitation District:

_____ _____
James D. Herberg, General Manager Date

For the Orange County Transportation Authority:

_____ _____
Darrell Johnson, Chief Executive Officer Date

For the Southern California Association of Governments:

_____ _____
Kome Ajise, Executive Director Date

For the Foothill/Eastern Transportation Corridor Agency:

_____ _____
Michael Kraman, Chief Executive Officer Date

For the San Joaquin Hills Transportation Corridor Agency:

_____ _____
Michael Kraman, Chief Executive Officer Date

For the Municipal Water District of Orange County:

_____ _____
Sat Tamaribuchi, President of the Board Date

_____ _____
Robert Hunter, General Manager Date

For the Orange County Water District:

_____ _____
Vincent Sarmiento, President Date

_____ _____
Michael R. Markus, General Manager Date

For the Orange County Local Agency Formation Commission:

_____ _____
Carolyn Emery, Executive Officer Date

For California State University, Fullerton:

_____ _____
Danny C. Kim, Vice President for Administration & Finance/CFO Date

Attachment 1: Center for Demographic Research
Annual Budget: July 1, 2020 through June 30, 2023

		2020-21	2021-22	2022-23
1	Salaries	$434,339.26	$446,889.06	$467,736.62
2	Benefits	$184,459.49	$191,881.70	$201,114.20
3	Supplies	$7,000.00	$7,000.00	$7,000.00
4	Printing & Publications	$8,500.00	$12,500.00	$8,500.00
5	Meetings, Mileage, & Training	$1,950.00	$1,950.00	$1,950.00
6	Equipment	$500.00	$500.00	$500.00
7	**Expenses**	**$636,748.75**	**$660,720.77**	**$686,800.82**
8	Federally-negotiated Indirect Cost (IDC) / Overhead: 37%	$235,597.04	$244,466.68	$254,116.30
9	Office space rent (not subject to IDC)	$80,784.96	$82,353.60	$82,353.60
10	**(A) Gross Total Program Costs**	**$953,130.75**	**$987,541.05**	**$1,023,270.72**
11	Contributions toward IDC			
12	Non-CSUF SPONSORS/Contributing Partner (22.0%)	$140,084.73	$145,358.57	$151,096.18
13	CSUF contribution (IDC reduction from 37% to 22%)	$95,512.31	$99,108.11	$103,020.12
14	Total Indirect Cost (IDC) / Overhead	$235,597.04	$244,466.68	$254,116.30
15	CSUF Contribution Summary			
16	Office space rent: 100%[1]	$80,784.96	$82,353.60	$82,353.60
17	Administrative Asst. salary support from HSS Dean[1]	$16,429.00	$16,429.00	$16,429.00
18	Subtotal of CSUF Monetary Contributions	$97,213.96	$98,782.60	$98,782.60
19	IDC / Overhead (Rate reduction from 37% to 22%)[2]	$95,512.31	$99,108.11	$103,020.12
20	**(B) Total CSUF Contribution**	**$192,726.27**	**$197,890.71**	**$201,802.72**
21	**NET CDR BUDGET TOTAL: (A) - (B)**	**$760,404.48**	**$789,650.34**	**$821,468.00**
22	Contributing Partner (no seat): LAFCO	$17,000.00	$17,000.00	$17,000.00
23	Cost per Sponsorship Seat= (Net Budget – LAFCO)/ 7 remaining seats	$106,200.64	$110,378.62	$114,924.00

		Number of Voting Seats			
24	OCTA	1	$106,200.64	$110,378.62	$114,924.00
25	COUNTY	1	$106,200.64	$110,378.62	$114,924.00
26	OCCOG	1	$106,200.64	$110,378.62	$114,924.00
27	OCSD	1	$106,200.64	$110,378.62	$114,924.00
28	TCA	1	$106,200.64	$110,378.62	$114,924.00
29	SCAG	1	$106,200.64	$110,378.62	$114,924.00
30	MWDOC	0.5	$53,100.32	$55,189.31	$57,462.00
31	OCWD	0.5	$53,100.32	$55,189.31	$57,462.00
32	CSUF	1	see above	see above	see above
33	LAFCO	0	$17,000.00	$17,000.00	$17,000.00
34	**TOTAL**	**8**	**$760,404.48**	**$789,650.34**	**$821,468.00**

[1]Monetary contribution
[2]Non-monetary contribution (rate reduction); not included in IV. Funding and Schedule: Payment Schedule for 2020-2023, Page 4.

Attachment 2
Proposed CDR 2020-2023 Services and Products

REPORTS

Orange County Progress Report

Produce an annual Orange County Progress Report. This document presents a unified and a comprehensive picture of Orange County and its 34 cities including its economic health, its demographic status and trends, and other information of interest to those who might wish to relocate to Orange County, do business in the County, or otherwise have an interest in the economic and demographic status and future of Orange County.

Orange County Projections

Preparation and development of OCP-2022 will begin during this three-year MOU. Incorporate 2020 Decennial Census data into OCP-2022 base year dataset. Complete OCP-2022 dataset and adoption. Following the adoption of OCP-2022, produce a report containing assumptions, tables, charts, maps, and methodology. The OCP dataset contains population, housing, and employment projections by 2020 census tract, jurisdiction, Community Analysis Area, and Regional Statistical Area for a 25-year period. This iteration will include agency boundaries for MWDOC, OCSD, & OCWD.

Orange County Facts and Figures

Update quarterly the Orange County Facts and Figures. This document focuses on the most frequently asked questions about Orange County demographics and related information.

Boundary and Annexation Report

Working with information provided by OC LAFCO, CDR staff will produce an annual report of the jurisdictional boundary changes. This multi-page report will contain a map of the year to year boundary changes and a table listing the area change and specific annexations and incorporations for each calendar year. Detailed annexation and vicinity maps from OC LAFCO's approved changes of organization documents will also be included in the report. For ease of reference and to make the information publically available, the report will be posted on OC LAFCO's website.

Housing Activity Report

Using information from the Housing Inventory System (HIS), CDR staff will produce an annual report on the housing construction and demolition activity by jurisdiction. Information will be released in aggregate form at the jurisdiction level in a PDF.

PUBLIC INFORMATION SERVICES

Provide Public Information on Orange County Demographics as Requested

Provide information in response to numerous requests made by government agencies, elected officials, private companies, non-profit organizations, schools, students, and citizens regarding demographic and related information about Orange County.

Maintain CDR Website

Update the information currently on the CDR website on a regular basis and expand as information becomes available.

Provide Information and Analysis to News Media

Provide information, description, interviews, and analysis of demographics to news media to assist them in doing stories where demographics is the focus.

Update RHNA Allocations

Develop allocations of 2020 RHNA for annexations and incorporations as requested. Provide data support to local jurisdictions and SCAG during development of the 2020 RHNA. Monitor RHNA development process to ensure Orange County data is incorporated.

Process Decennial Census and American Community Survey Data

Process Bureau of Census data as it pertains to development of the Orange County Projections and at the request of CDR Sponsors.

State Data Center Affiliate

The CDR will serve as a State Data Center Affiliate to the Demographic Research Unit of the California Department of Finance. As an Affiliate, CDR will assist the SDC and Orange County in disseminating census data and improving public access to census data products consistent with services CDR already provides.

DATA BASES

Housing Inventory System

The Housing Inventory System (HIS) is a data system that includes all changes to each jurisdiction's housing stock, including 2017 and 2019 changes to accessory dwelling units. Data is collected at the address level and converted into a GIS database by geocoding. After geocoding, quality analysis efforts include tying activity to parcels. Depending on the jurisdiction, different documents are used to record added units including certificates of use and occupancy, utility release log, or building final documents. Demolitions and conversions are recorded though other recordation. Changes to the mobile home inventory will be verified with HCD. This project includes an annual review and sign off process by each jurisdiction of their geocoded data to ensure accuracy.

Census Data by Partial TAZ

Update the correspondence tables of 2020 Census blocks to the TAZs after release of Census Bureau data and GIS shapefiles. As the various census files become available, transportation modeling variables and other key variables useful for projecting the modeling variables will be aggregated to TAZ.

Calibrate Age Cohort Component, Shift-Share and Headship Rate Models

Based on data from the Census Bureau, DOF, and EDD data, calibrate the models used to project county-wide population, housing and employment.

Master Polygon File

Update master polygon file based on the 2020 Census block file for use in development of OCP dataset and annual population and housing unit estimates. Allocate Census block data to TAZ, CAA, RSA, MWDOC, OCSD, and OCWD. Working with information from OC LAFCO, the master polygon file will be updated annually to include changes to agency boundaries: jurisdiction, MWDOC, OCSD, and OCWD.

Population and Housing Estimates by TAZ (OCP)

Estimates of population and housing by unit type will be developed using the 2010 Census and American Community Survey data at the split TAZ. From 2014 onwards, housing unit changes will be geocoded and aggregated to the TAZ. Annual estimates of population and housing will be produced by TAZ for maintenance of the OCP base file.

Annual Population and Housing Estimates by Partial Census Tract and Sponsor Agency

Estimates of population and housing units developed using the 2020 Census for each of the special district sponsors will be updated annually. From 2014 onwards, annual estimates (January 1) of population and housing will be produced by partial census tract and for each of the special district sponsor agencies: MWDOC, OCSD, and OCWD.

Project Total County Population, Housing, and Employment

Draft assumptions for OCP-2022 will be developed and reviewed by the CDR TAC. These will then be incorporated into the macro level models used to project population, housing, and employment. The resulting projections will be reviewed by the CDR TAC and MOC and then brought to the OCCOG TAC and Board for approval as the controls totals for OCP-2022.

Projected Population, Housing and Employment by TAZ (OCP)

Preparation and development of OCP-2022 will begin during this MOU cycle. Countywide population, housing, and employment for years 2020 through 2050 will be allocated to Traffic Analysis Zones split by jurisdictions. Following the allocation, extensive review and refinement will occur to assure the accuracy of the projections.

Secondary Variables by TAZ (OCTAM)

The basic projected population, housing, and employment from OCP-2022 will be expanded to the 14 OCTAM variables. These variables will include resident population, group quarters population, employed residents, median income, occupied single family dwelling units, occupied multiple family dwelling units, household size, retail employment, service employment, K-12 public school employment, all other employment, school enrollment, university enrollment, and area. Preparation of the base year OCTAM data for OCP-2026 will begin in this MOU cycle.

Entitlement Dataset & Support Services

Provide support to Orange County jurisdictions in the development of the entitlements database and other data requested by SCAG during the development of the 2020 & 2024 RTP/SCS. Monitor development process to ensure Orange County data is incorporated.

Consolidated Boundary and Annexation Program (CBAS)

CDR staff will report annual jurisdictional boundary and feature changes through a new, voluntary program of the U.S. Census Bureau that allows for a consolidated annual review of jurisdiction boundaries. This review will be done using the official County Surveyor/OC LAFCO jurisdiction GIS boundary file. Orange County jurisdictions will be able to opt in or out of this CDR service annually. CDR will notify each participating jurisdiction and OC LAFCO of the outcome of the BAS review, i.e., whether there were any areas where jurisdiction boundaries needed to be corrected.

COMMITTEES

Participate in Sponsor Technical Advisory Committees as Requested

Participate in appropriate Sponsor technical advisory committees including, OCCOG TAC, County's Demographic Steering Committee, OCTA's Modeling TAC, Orange County Sanitation District's Planning Advisory Committee, Water Use Efficiency Project Advisory Committee, and SCAG's Technical Working Group and other regional working groups.

Coordinate with SCAG and SCAG Committees

This service revolves around the incorporation of OCP into the SCAG growth forecast. This service includes participation in SCAG expert panels and workshops to develop assumptions for their population and employment projections; monitoring the discussions relevant to the development of SCAG's growth forecast at SCAG policy committees and subregional coordinator meetings; and coordinating with relevant SCAG staff on this issue.

Coordinate with University Research Centers

CDR staff will coordinate with UCI and Chapman University research centers to ensure consistency between the CDR's forecast and estimates and those produced by these institutes.

2020-2023 LAFCO FUNDED PROJECT: Sphere of Influence Estimates

CDR will update its master polygon file on an annual basis with changes to the sphere of influence (SOI) boundaries. CDR will produce annual estimate of January 1 population and housing for each of the SOI polygons upon completion of the annual Housing Inventory System to maintain this information in preparation for the 2018-2022 OC LAFCO municipal service review cycle.

Boundary and Annexation Report: Working with OC LAFCO over the three-year MOU cycle, CDR will attempt to build a historical reference collection of these reports going back to 2000 as information is available.

NEW PROJECTS & SERVICES

Modifications to OCTA Traffic Analysis Zones

CDR will work with OCTA on an update to their Orange County Transportation Analysis Model Traffic Analysis Zones (OCTAM TAZs) to align with roads and communities that have been built and future developments which are now formally detailed. Once the 2020 Census block geographic boundaries are available, the CDR will work with OCTA from July to December 2020 to update the OCTAM TAZ boundaries by incorporating any additional changes OCTA has requested and finalize any other requested or suggested changes to the TAZ boundaries in preparation for the OCP-2022. 2020 base year estimates to be reviewed by jurisdictions in summer 2021.

Orange County Projections 2022 Geographies- Tier 3/City TAZ Pilot Program

CDR will complete a pilot program of three cities, which already have comparable data at the Tier 3/city TAZ level, to expand the OCP split OCTAM-TAZ geographies to the city/Tier 3 TAZs for OCP-2022. The city-TAZs nest into the OCTAM TAZs. This data will also be provided to SCAG for use in their modeling efforts at the Tier 3 level. The OCP-2022 working geographic unit would be the split Tier 3 TAZ. The OCTAM modeling dataset would still be developed and provided to OCTA at the OCTAM TAZ (Tier 2) level. The pilot program would potentially be a first-phase effort to incorporate the city/Tier 3 TAZ for the three volunteer cities (Anaheim, Irvine, and Newport Beach) into the CDR minimum planning unit database for OCP.

Special Decennial Census Edition of the Facts & Figures

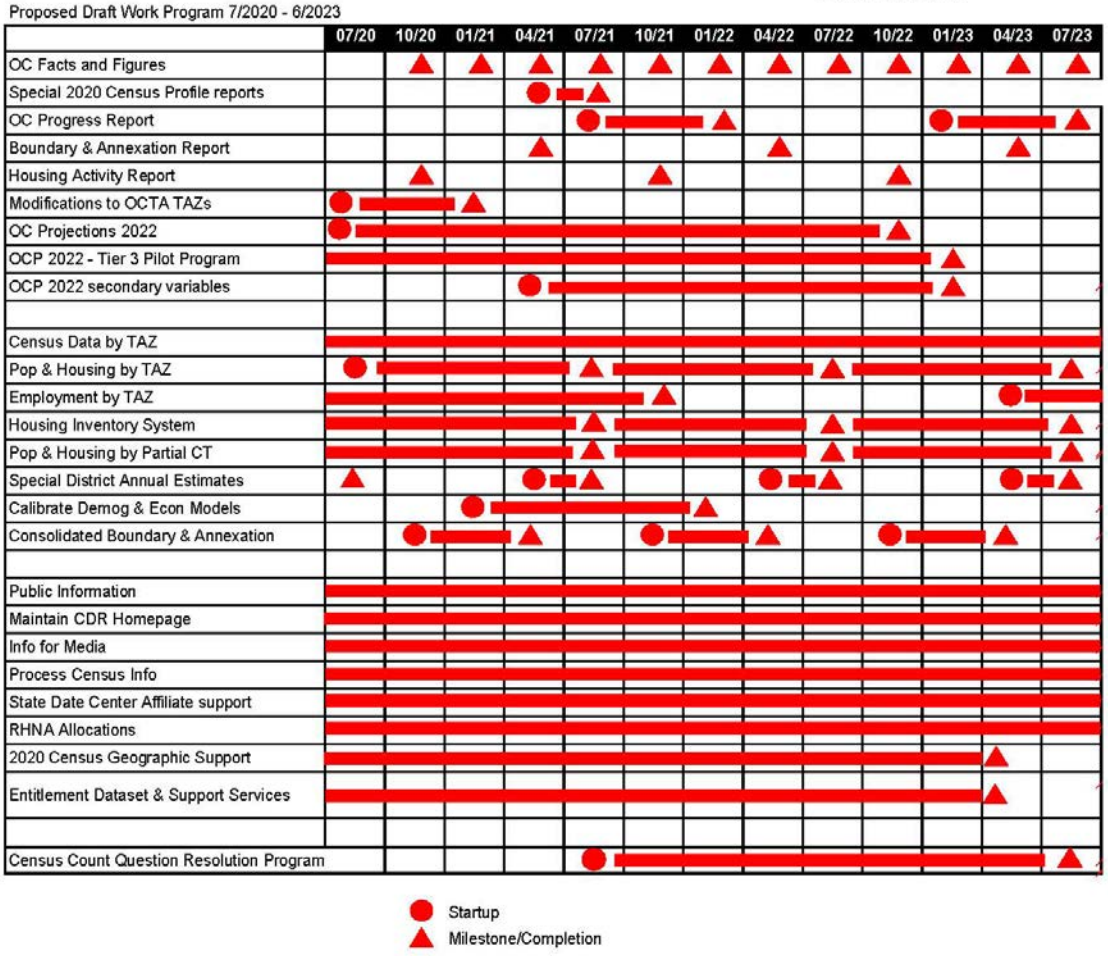
This multi-page document will include county and city/community data from the 2020 Decennial Census on population and housing. It will also show growth and changes since the 2010 Decennial Census. This document will be electronic and posted online for free download.

Census Bureau Count Question Resolution (CQR) Program Support

CDR staff will provide maps to Orange County jurisdictions to verify 2020 Census jurisdictional boundaries and total population and housing unit counts by census block. CDR staff will assist Orange County jurisdictions in documenting errors found during the review process by providing maps to be used in their responses to the U.S. Census Bureau Count Question Resolution program.

Attachment 3

Proposed Draft Work Program 7/2020 - 6/2023



Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 12, 2020

To: Administration/Finance Issues Cte.
Board of Directors

From: Mike Markus

Staff Contact: Mike Markus

Budgeted: No
Budgeted Amount: $0
Cost Estimate: $68,000
Funding Source: General Fund
Program/Line Item No: 1070.53010
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: OPERATIONAL EFFICIENCY STUDY

SUMMARY

The District has a large and complex operational system. Any small change in efficiency can result in substantial cost savings. This proposal would explore areas where District operational efficiencies can be improved and use other organizations around the globe to explore where the District may be able to implement changes and improve efficiencies which could lead to lower operational costs.

Attachment(s): Bookey Oren Global Water Technologies Ltd. Proposal for Collaboration with the Orange County Water District dated February 20, 2020.

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board meeting: Authorize issuance of an Agreement to Bookey Oren Global Water Technologies Ltd. in an amount not to exceed $68,000 in accordance with its proposal dated February 20, 2020.

BACKGROUND/ANALYSIS

The District has a very large and complex operational system and any small changes in efficiency can result in substantial cost savings. Mr. Bookey Oren is the past Chief Executive Officer of Mekorot, Israel's National Water Company, and is recognized as a global leader in the industry. His clients include Singapore PUB, Los Angeles Water and Power, Los Angeles City Sanitation District, and Thames Water among others. Mr. Oren has developed a program which attempts to identify strengths and weakness of organizations, makes comparisons with other organizations and then distills the information and comes up with potential solutions that would improve operational efficiencies.

Staff has identified three areas that warrant explorations:

1. Asset Management – This area would pertain to the evaluation of the District's asset management system, which helps run its operations. Although the system runs satisfactorally, similar systems are used around the world and staff believes that improvements can be made.

2. Brakish Water Desalination – This area would pertain to the operation of the Groundwater Replenishment System (GWRS). Areas of study would include energy efficiency/energy recovery, brine recovery, reverse osmosis third stage fouling issues and alternate anti-scalant usage.
3. Water Quality - This area would pertain to PFAS treatment technologies.

This program would last through the end of the year and come up with recommendations in each of these three areas. Staff would evaluate the program results at that time and make a recommendation as to continuation of the program.

PRIOR RELEVANT BOARD ACTION(S) N/A

Backup materials for Committee items are available in the Committee packet.
Materials distributed at Committee meetings are attached hereto

AGENDA ITEM SUBMITTAL

Meeting Date: March 12, 2020

To: Administrative/Finance Issues Cte
Board of Directors

From: Mike Markus

Staff Contact: R. Fick

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: N/A
Funding Source: N/A
Program/Line Item No.: N/A
General Counsel Approval: N/A
Engineers/Feasibility Report: NA
CEQA Compliance: N/A

Subject: WIFIA INTEREST RATE REDUCTION REQUEST

SUMMARY

Staff recently inquired with the U.S. Environmental Protection Agency (EPA) Water Infrastructure Finance & Innovation Act (WIFIA) Program management regarding the possibility of a WIFIA loan interest rate reduction. The District entered into a $135 million WIFIA loan on July 26, 2018 for the Groundwater Replenishment System Final Expansion Project at an interest rate of 3.06%. The EPA WIFIA Program management and staff have been in discussion regarding the process of a one-time re-set of the WIFIA loan interest rate. Given the recent drop in interest rates, staff recommends pursuing this opportunity immediately.

Attachment(s):
- Resolution
- Presentation

RECOMMENDATION

RECOMMENDED BY COMMITTEE

Agendize for March 18 Board meeting: Adopt Resolution authorizing execution and delivery of an amendment to/or re-execution and delivery of the WIFIA Loan Agreement to lower the interest rate therein with costs not to exceed $190,000.

BACKGROUND/ANALYSIS

Staff contacted the EPA WIFIA Program management regarding the possibility of a WIFIA loan interest rate reduction. The EPA WIFIA Program management came back to the District with a path forward for a one time per loan re-set of the interest rate under limited circumstances to the State and Local Government Series (SLGS) rate (plus one basis point) on the date of the re-execution. As a point of reference, the SLGS rate for a Weighted Average Life loan of 22.9 years (as the District's WIFIA loan is) was 1.59% on March 3, 2020. This process for a one-time interest rate re-set does not re-open the whole loan agreement for re-negotiation, and the terms, conditions, and loan amount cannot change.

The process for a one-time rate reduction steps are as follows:

1) The District must submit an interest rate reduction request in writing the includes the following items:

    a. Demonstrated ability to obtain a better rate from other sources in the market on debt comparable to the terms of the WIFIA loan and of equal lien priority.

    b. Explanation of how the alternative funding would translate to significant savings and quantification of the savings.

    c. Documentation showing that the project is in preconstruction or under construction and that the construction value of the project costs remaining to date is more than the WIFIA loan percent share of the total eligible project costs.

    d. Documentation showing that the loan amount at the time of re-execution will still be no more than 49% of eligible project costs.

2) The WIFIA program management will review the documentation submitted to verify that the conditions for consideration are met.

3) The WIFIA program management, with external counsel support, will make the necessary changes to the loan agreement and ensure that all required certifications, opinions, rating letters, resolutions, bond/note, and other supporting documents are valid and obtain new documents whenever necessary. Prior to re-executing the loan agreement, the parties will also complete a new closing checklist, verify that conditions precedent to closing are satisfied, and prepare a new closing set.

4) A new loan agreement will be signed by the EPA and the District, setting a new interest rate.

5) The WIFIA program management will require a credit processing fee at the time of the new closing to pay for EPA's cost of retaining expert firms (legal support) to assist in the re-execution of the credit instrument. The credit processing fee will be set based on the costs incurred by EPA.

The EPA's legal fees for the re-execution of the WIFIA loan agreement are estimated at $100,000 to be paid by the District. The District's special counsel fees are estimated at $45,000 and financial advisor fees are estimated at $45,000. The total fees for the re-execution and delivery of the WIFIA loan agreement are not to exceed $190,000.

If the rates as of March 3, 2020, were to hold until the re-execution of the loan agreement at 1.59%, the District would save approximately $39 million in interest cost over the life of the loan in today's dollars versus at an interest rate of 3.06%. It is estimated that it will

take approximately 30 days to re-execute the amended loan agreement with the reduction in interest rate.

Regarding the WIFIA loan interest rate reset, set forth below are good faith estimates of Fieldman, Rolapp & Associates, Inc., the municipal advisor, as required under Section 5852.1 of the California Government Code (the "Code"). The following estimates have no bearing on, and should not be misconstrued as, any not-to-exceed financial parameters authorized by resolution.

(a) The interest rate cost of the Loan is estimated at 1.60%, calculated as provided in Section 5852.1(a)(1)(A) of the Code.

(b) The finance charge of the Obligations, including all fees and charges paid to third parties, is estimated at $190,000.

(c) Proceeds of the Loan received by the District, including the estimated principal amount of the proposed Loan of $135,000,000, plus interest of $19,721,204, less the finance charges set forth in (b) above and the capitalized interest amount of $26,175,678 and repaid as principal, is equal to $180,896,882 (estimated amount for the Project Fund).

(d) The total payment amount calculated as provided in Section 5852.1(a)(1)(D) of the Code is estimated at $180,896,882.

The foregoing are estimates and the final costs will depend on market conditions and can be expected to vary from the estimated amounts set forth above.

PRIOR BOARD ACTIONS

5/22/19, R19-5-71: Authorize the execution and delivery of not to exceed $155,000,000 Certificates of participation and approving the execution and delivery of certain documents in connection therewith and certain other matters.

02/20/19, R19-2-22: Authorize RFP's for investment banking/underwriting and investment advisory services; engage Stradling, Yocca as bond counsel and Fieldman, Rolapp & associates as municipal advisor; and authorize the preparation of documents for future issuance of tax-exempt short-term obligations pending further action by the board.

07/18/18, R18-8-90: Authorize the execution and delivery of WIFIA loan agreement and certain other matters.

AGENDA ITEM SUBMITTAL

Meeting Date: March 18, 2020

To: Board of Directors

From: Mike Markus

Staff Contact: J. Kennedy

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: N/A
Funding Source: N/A
Program/Line Item No.: N/A
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: GOVERNOR EXECUTIVE ORDER N-25-20 WAIVING PROVISIONS OF THE BROWN ACT DUE TO THE COVID-19 STATE OF EMERGENCY

SUMMARY

The Governors recent executive order will temporarily relax the requirements for teleconferencing into Board meetings due to concerns regarding the COVID-19 virus. Staff will also review and discuss actions by other organizations that could have an impact on the District's operations along with possible Board actions.

Attachment: Governor's Executive Order

RECOMMENDATION

Take action as appropriate

BACKGROUND/ANALYSIS

Governor Newsom issued an Executive Order on March 12, 2020 making it easier for meetings conducted by legislative bodies to be held by way of teleconferencing. While teleconferencing is permitted under existing Brown Act provisions, complying with the noticing and posting requirements and making the teleconferencing locations open to the public can be difficult.

Under the Executive Order, Board Members may now teleconference from a location that is not accessible to the public and which is outside the jurisdiction of the District. The District is not required to notice the teleconference location of each Board member or post agendas at such locations. At least one Board Member is no longer required to be at the regular meeting location. Board Members can participate by teleconference under the following conditions:

- The normal posting and noticing requirements for meetings remain in place.
- OCWD must notice at least one publicly accessible location from which members of the public shall have their existing right to observe and publicly comment.
- That notwithstanding the waiver of Brown Act requirements in the Executive Order, the District shall make reasonable efforts to comply as reasonably is possible with the Brown Act

Social Distancing Requirements: Board members, staff, and members of the public, per Section 1 of the Executive Order, are to observe social distancing recommendations of state health officials at all gatherings. Gatherings, as defined, includes local agency public meetings conducted per the Brown Act. Per the California Department of Public Health ("CDPH"), all persons attending public gatherings are to be at least six feet apart, particularly where sensitive populations are in attendance. See https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Gathering_Guidance_03.11.20.pdf for the full CDPH advisory. The CDPH advisory is applicable to public meetings through the end of March 2020 and may be extended depending on the success of efforts to limit the spread of coronavirus.

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

EXECUTIVE ORDER N-25-20

WHEREAS on March 4, 2020, I proclaimed a State of Emergency to exist in California as a result of the threat of COVID-19; and

WHEREAS despite sustained efforts, the virus remains a threat, and further efforts to control the spread of the virus to reduce and minimize the risk of infection are needed; and

WHEREAS state and local public health officials may, as they deem necessary in the interest of public health, issue guidance limiting or recommending limitations upon attendance at public assemblies, conferences, or other mass events, which could cause the cancellation of such gatherings through no fault or responsibility of the parties involved, thereby constituting a force majeure; and

WHEREAS the Department of Public Health is maintaining up-to-date guidance relating to COVID-19, available to the public at http://cdph.ca.gov/covid19; and

WHEREAS the State of California and local governments, in collaboration with the Federal government, continue sustained efforts to minimize the spread and mitigate the effects of COVID-19; and

WHEREAS there is a need to secure numerous facilities to accommodate quarantine, isolation, or medical treatment of individuals testing positive for or exposed to COVID-19; and

WHEREAS, many individuals who have developmental disabilities and receive services through regional centers funded by the Department of Developmental Services also have chronic medical conditions that make them more susceptible to serious symptoms of COVID-19, and it is critical that they continue to receive their services while also protecting their own health and the general public health; and

WHEREAS individuals exposed to COVID-19 may be temporarily unable to report to work due to illness caused by COVID-19 or quarantines related to COVID-19 and individuals directly affected by COVID-19 may experience potential loss of income, health care and medical coverage, and ability to pay for housing and basic needs, thereby placing increased demands on already strained regional and local health and safety resources such as shelters and food banks; and

WHEREAS in the interest of public health and safety, it is necessary to exercise my authority under the Emergency Services Act, specifically Government Code section 8572, to ensure adequate facilities exist to address the impacts of COVID-19; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay appropriate actions to prevent and mitigate the effects of the COVID-19 pandemic.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes of the State of California, and in particular, Government Code sections 8567, 8571 and 8572, do hereby issue the following order to become effective immediately:

IT IS HEREBY ORDERED THAT:

1. All residents are to heed any orders and guidance of state and local public health officials, including but not limited to the imposition of social distancing measures, to control the spread of COVID-19.

2. For the period that began January 24, 2020 through the duration of this emergency, the Employment Development Department shall have the discretion to waive the one-week waiting period in Unemployment Insurance Code section 2627(b)(1) for disability insurance applicants who are unemployed and disabled as a result of the COVID-19, and who are otherwise eligible for disability insurance benefits.

3. For the period that began January 24, 2020 through the duration of this emergency, the Employment Development Department shall have the discretion to waive the one-week waiting period in Unemployment Insurance Code section 1253(d) for unemployment insurance applicants who are unemployed as a result of the COVID-19, and who are otherwise eligible for unemployment insurance benefits.

4. Notwithstanding Health and Safety Code section 1797.172(b), during the course of this emergency, the Director of the Emergency Medical Services Authority shall have the authority to implement additions to local optional scopes of practice without first consulting with a committee of local EMS medical directors named by the EMS Medical Directors Association of California.

5. In order to quickly provide relief from interest and penalties, the provisions of the Revenue and Taxation Code that apply to the taxes and fees administered by the Department of Tax and Fee Administration, requiring the filing of a statement under penalty of perjury setting forth the facts for a claim for relief, are suspended for a period of 60 days after the date of this Order for any individuals or businesses who are unable to file a timely tax return or make a timely payment as a result of complying with a state or local public health official's imposition or recommendation of social distancing measures related to COVID-19.

6. The Franchise Tax Board, the Board of Equalization, the Department of Tax and Fee Administration, and the Office of Tax Appeals shall use their administrative powers where appropriate to provide those individuals and businesses impacted by complying with a state or local public health official's imposition or recommendation of social

distancing measures related to COVID-19 with the extensions for filing, payment, audits, billing, notices, assessments, claims for refund, and relief from subsequent penalties and interest.

7. The Governor's Office of Emergency Services shall ensure adequate state staffing during this emergency. Consistent with applicable federal law, work hour limitations for retired annuitants, permanent and intermittent personnel, and state management and senior supervisors, are suspended. Furthermore, reinstatement and work hour limitations in Government Code sections 21220, 21224(a), and 7522.56(b), (d), (f), and (g), and the time limitations in Government Code section 19888.1 and California Code of Regulations, title 2, sections 300-303 are suspended. The Director of the California Department of Human Resources must be notified of any individual employed pursuant to these waivers.

8. The California Health and Human Services Agency and the Office of Emergency Services shall identify, and shall otherwise be prepared to make available—including through the execution of any necessary contracts or other agreements and, if necessary, through the exercise of the State's power to commandeer property – hotels and other places of temporary residence, medical facilities, and other facilities that are suitable for use as places of temporary residence or medical facilities as necessary for quarantining, isolating, or treating individuals who test positive for COVID-19 or who have had a high-risk exposure and are thought to be in the incubation period.

9. The certification and licensure requirements of California Code of Regulations, Title 17, section 1079 and Business and Professions Code section 1206.5 are suspended as to all persons who meet the requirements under the Clinical Laboratory Improvement Amendments of section 353 of the Public Health Service Act for high complexity testing and who are performing analysis of samples to test for SARS-CoV-2, the virus that causes COVID-19, in any certified public health laboratory or licensed clinical laboratory.

10. To ensure that individuals with developmental disabilities continue to receive the services and supports mandated by their individual program plans threatened by disruptions caused by COVID-19, the Director of the Department of Developmental Services may issue directives waiving any provision or requirement of the Lanterman Developmental Disabilities Services Act, the California Early Intervention Services Act, and the accompanying regulations of Title 17, Division 2 of the California Code of Regulations. A directive may delegate to the regional centers any authority granted to the Department by law where the Director believes such delegation is necessary to ensure services to individuals with developmental disabilities. The Director shall describe the need justifying the waiver granted in each directive and articulate how the waiver is necessary to protect the public health or safety from the threat of COVID-19 or necessary to ensure that services to individuals with developmental disabilities are not disrupted. Any waiver granted by a directive shall expire 30 days from the date of its issuance. The Director may grant one or more 30-day extensions if the waiver continues to be necessary

to protect health or safety or to ensure delivery of services. The Director shall rescind a waiver once it is no longer necessary to protect public health or safety or ensure delivery of services. Any waivers and extensions granted pursuant to this paragraph shall be posted on the Department's website.

11. Notwithstanding any other provision of state or local law, including the Bagley-Keene Act or the Brown Act, a local legislative body or state body is authorized to hold public meetings via teleconferencing and to make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to attend and to address the local legislative body or state body, during the period in which state or local public officials impose or recommend measures to promote social distancing, including but not limited to limitations on public events. All requirements in both the Bagley-Keene Act and the Brown Act expressly or impliedly requiring the physical presence of members, the clerk or other personnel of the body, or of the public as a condition of participation in or quorum for a public meeting are hereby waived.

In particular, any otherwise-applicable requirements that

(i) state and local bodies notice each teleconference location from which a member will be participating in a public meeting;
(ii) each teleconference location be accessible to the public;
(iii) members of the public may address the body at each teleconference conference location;
(iv) state and local bodies post agendas at all teleconference locations;
(v) at least one member of the state body be physically present at the location specified in the notice of the meeting; and
(vi) during teleconference meetings, a least a quorum of the members of the local body participate from locations within the boundaries of the territory over which the local body exercises jurisdiction

are hereby suspended, on the conditions that:

(i) each state or local body must give advance notice of each public meeting, according to the timeframe otherwise prescribed by the Bagley-Keene Act or the Brown Act, and using the means otherwise prescribed by the Bagley-Keene Act or the Brown Act, as applicable; and
(ii) consistent with the notice requirement in paragraph (i), each state or local body must notice at least one publicly accessible location from which members of the public shall have the right to observe and offer public comment at the public meeting, consistent with the public's rights of access and public comment otherwise provided for by the Bagley-Keene Act and the Brown Act, as applicable (including, but not limited to, the requirement that such rights of access and public comment be made available in a manner consistent with the Americans with Disabilities Act).

In addition to the mandatory conditions set forth above, all state and local bodies are urged to use sound discretion and to make reasonable efforts to adhere as closely as reasonably possible to the provisions of the Bagley-Keene Act and the Brown Act, and other applicable local laws regulating the conduct of public meetings, in order to maximize transparency and provide the public access to their meetings.

IT IS FURTHER ORDERED that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 12th day of March 2020.

GAVIN NEWSOM
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

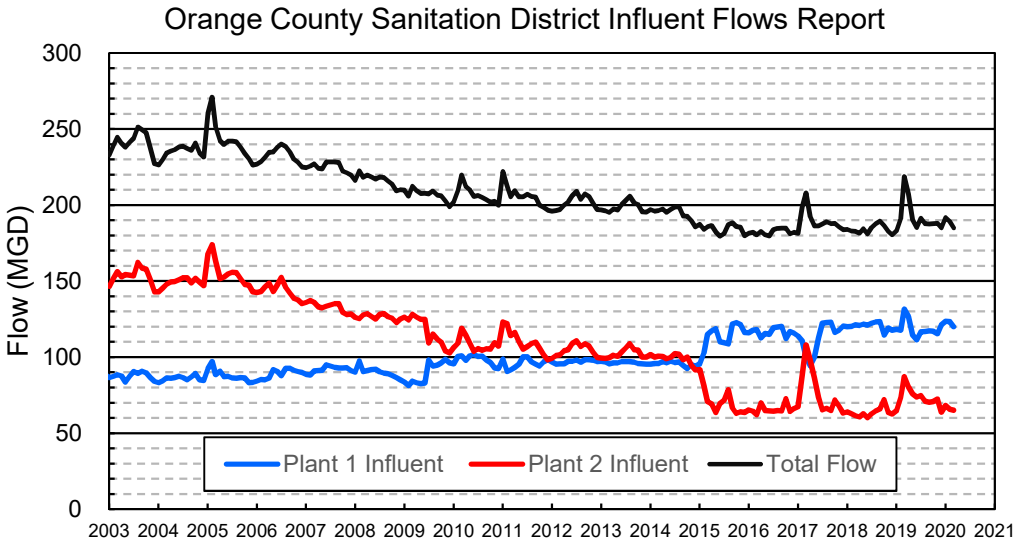
WATER RESOURCES SUMMARY

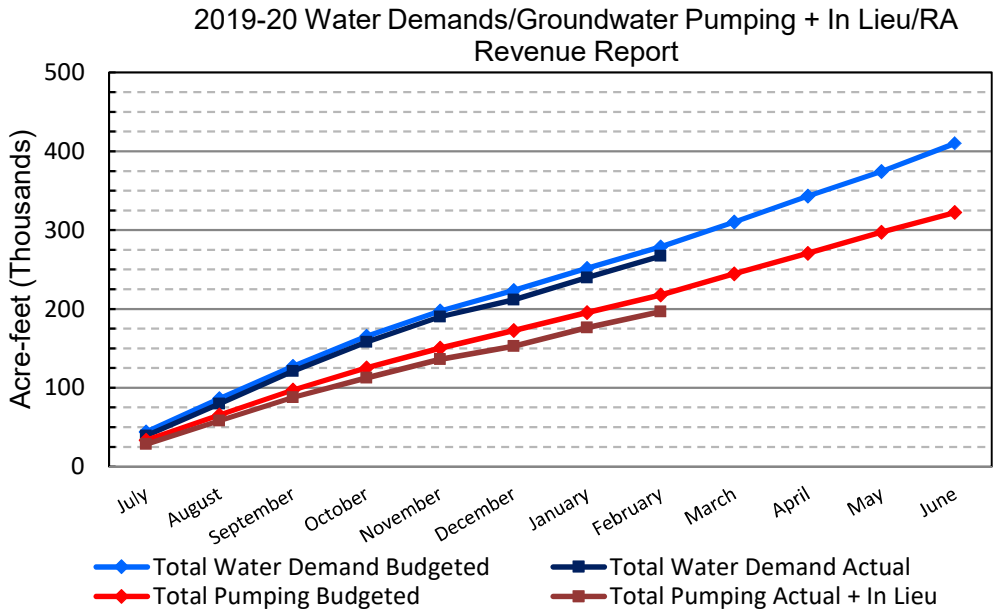
February 2020

INFLOWS & OUTFLOWS (acre-feet)	Total for Month	Year to Date - This Year	Year to Date - Last Year
BASIN SUPPLIES			
Water Purchases from MWD (excludes In Lieu)	0	18,098	40,345
Water into MWD Storage Account (excludes In Lieu)	0	0	0
SAR & Santiago Creek Flows	13,884	92,043	147,602
(accounts for storage to/from recharge facilities)			
GWRS Water to Forebay	6,325	50,009	41,319
GWRS Water to Mid-Basin Injection Wells	148	1,198	1,097
GWRS Water to Talbert Barrier	1,483	17,354	18,992
OC-44 Water to Talbert Barrier	0	0	17
Alamitos Barrier Water	150	1,425	1,411
Incidental Recharge (estimated)	3,000	25,100	31,800
Evaporation from Recharge Basins	(176)	(2,192)	(2,191)
River Flow Lost to Ocean	0	(1,869)	(65,778)
Total Groundwater Recharge	24,815	201,167	214,614
WATER PRODUCTION			
Groundwater Production	20,230	196,521	205,133
MWD Storage Program Withdrawals	0	0	0
Total Groundwater Production	20,230	196,521	205,133
BASIN BALANCE			
Change in Groundwater Storage	4,585	4,647	9,482
Change in Groundwater Storage excluding MWD Stored Water	4,585	4,647	9,482
Accumulated Overdraft	------	231,354	267,518
Accumulated Overdraft excluding MWD Storage	------	231,354	267,518
IN LIEU WATER			
OCWD In Lieu Purchases (MWD Cyclic Storage)	0	7,515	0
MWD In Lieu Storage	0	0	0
Total In Lieu	0	7,515	0
OTHER KEY INFORMATION			
1. MWD Water Deliveries to Producers	5,970	58,773	44,969
2. Basin Production Percentage	77.2%	79.9%	82.0%
3. Total Water Demand	27,463	267,038	260,098
4. Total GWRS Production	7,967	68,625	61,474
5. Green Acres Project Water	206	2,852	2,152
6. SAR Water Quality			
- Total Dissolved Solids (TDS) of SAR below Prado Dam (ppm)	672	------	412
- Total Nitrogen of SAR below Prado Dam (ppm)	5.7	------	2.8
7. Month-End Water Storage Behind Prado Dam	4	------	18,523
8. Month-End Water Storage in Recharge Facilities	17,902	------	23,366
9. Water Storage Change in Recharge Facilities	(4,176)	1,119	10,787
10. Total Artificial Recharge	21,815	176,067	182,814
11. Monthly Mean Temperature at Santa Ana Fire Station (°F)	61.1	------	54.6
12. Rainfall at FHQ (inches)	0.15	7.15	19.29

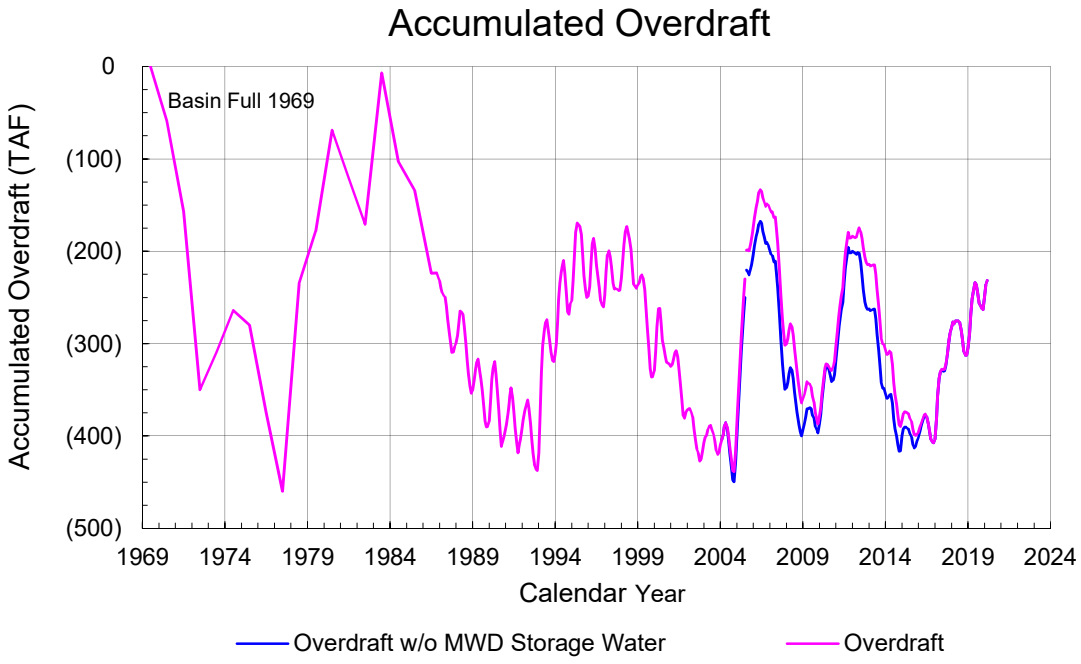
***** Note: Data are preliminary, subject to change**

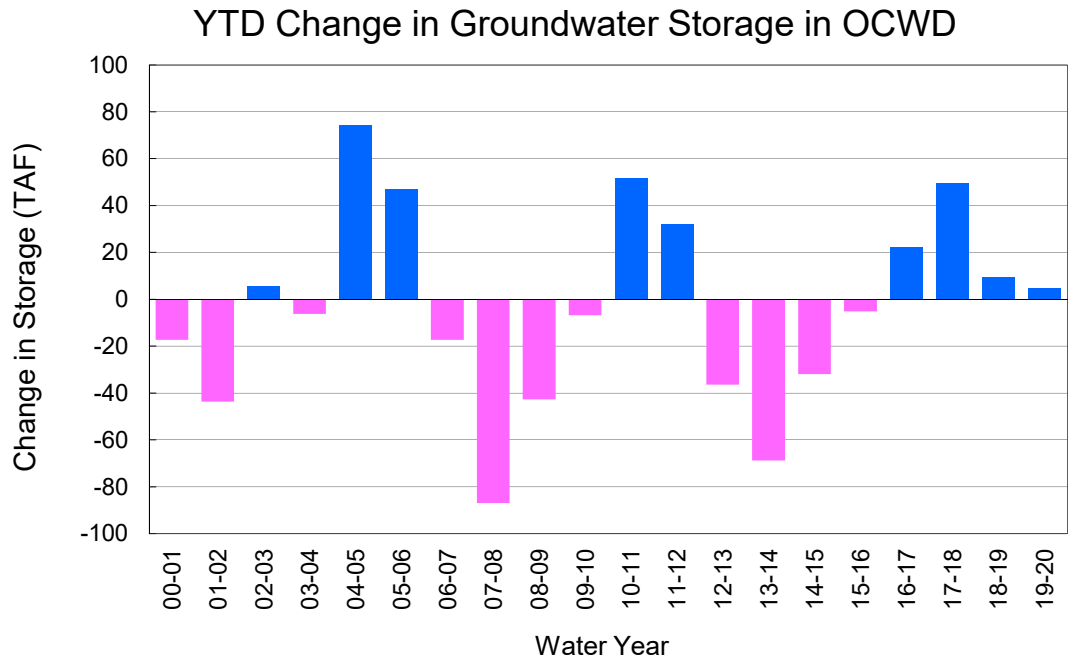
3/12/2020





	Monthly		Accumulated Total for the Year			
	Budget	Actual	Budget	Actual	Difference	Percent
Total Water Demand	**26,900**	**27,463**	**278,400**	**267,038**	**-11,362**	**95.92%**
Total Pumping + In Lieu	**22,500**	**20,230**	**217,900**	**204,035**	**-13,865**	**93.64%**
RA Revenue	**$10,395,000**	**$9,346,215**	**$100,669,800**	**$94,264,217**	**-$6,405,583**	**93.64%**


Accumulated Overdraft
Basin Full 1969
Accumulated Overdraft (TAF)
0
(100)
(200)
(300)
(400)
(500)
1969
1974
1979
1984
1989
1994
1999
2004
2009
2014
2019
2024
Calendar Year
Overdraft w/o MWD Storage Water
Overdraft


YTD Change in Groundwater Storage in OCWD
Change in Storage (TAF)
100
80
60
40
20
0
-20
-40
-60
-80
-100
00-01
01-02
02-03
03-04
04-05
05-06
06-07
07-08
08-09
09-10
10-11
11-12
12-13
13-14
14-15
15-16
16-17
17-18
18-19
19-20
Water Year

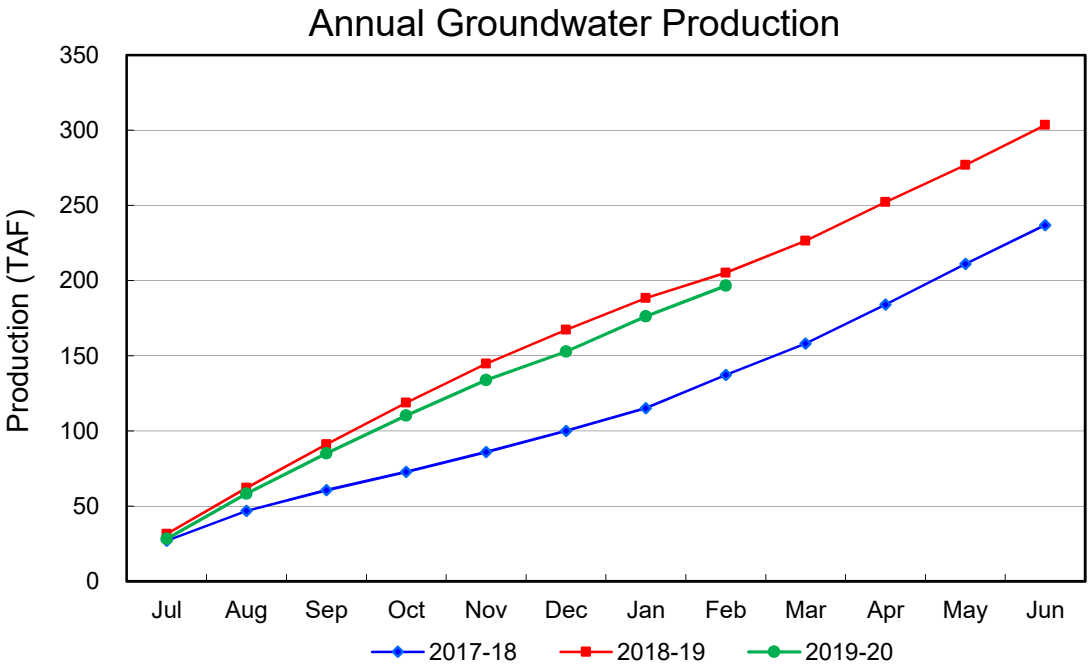
PRODUCERS WATER USAGE SUMMARY
February 2020
(AF except BPP)

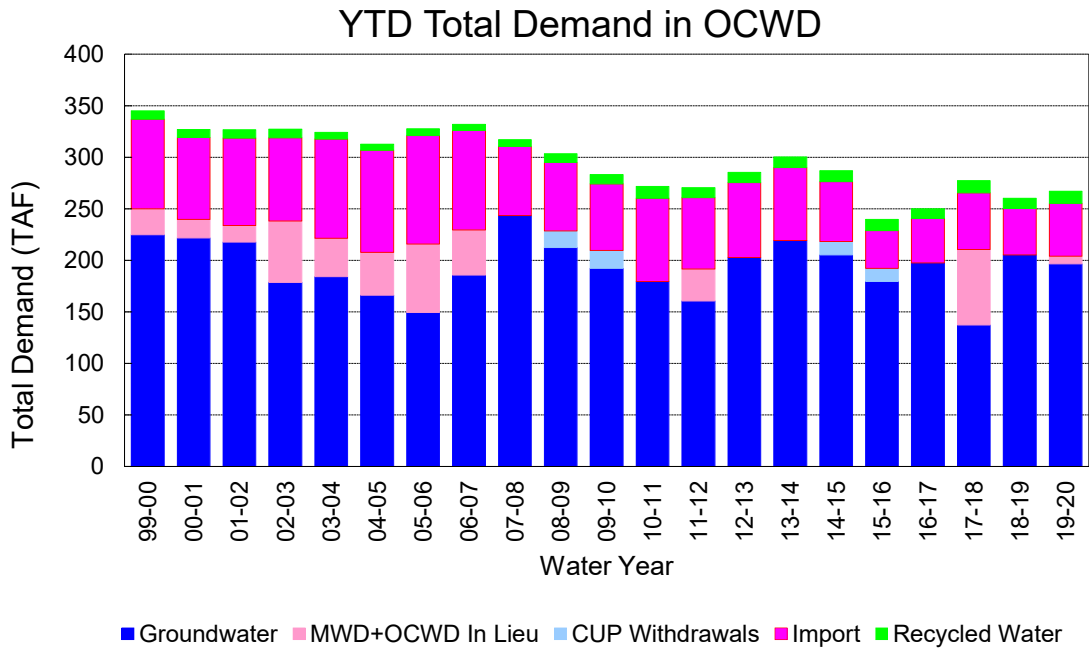
WATER AGENCY	Ground-water (1)	In Lieu	Reclaimed Water	Total Import (2)	Total Demand	2019-20 YTD Demand	2018-19 YTD Demand	YTD % Diff Demand	FEB 2020 BPP	2019-20 YTD BPP	2018-19 YTD BPP
Anaheim	2,487	0	0	1,474	3,961	40,777	37,912	108%	62.8%	72.3%	80.4%
Buena Park	937	0	0	5	942	9,054	8,766	103%	99.4%	73.2%	80.2%
East Orange County	0	0	0	56	56	554	564	98%	0.5%	0.8%	76.0%
Fountain Valley	611	0	18	0	629	6,818	6,165	111%	100.0%	100.0%	100.0%
Fullerton	1,190	0	0	452	1,641	16,526	16,222	102%	72.5%	79.9%	77.4%
Garden Grove	698	0	0	848	1,546	15,779	15,184	104%	45.1%	58.5%	83.4%
Golden State	1,288	0	0	316	1,603	15,586	15,883	98%	80.3%	80.1%	79.4%
West OC System	962	-	-	3	965	9,281	9,167	101%	na	na	na
East OC System	326	-	-	312	638	6,304	6,716	94%	na	na	na
Huntington Beach	1,462	0	0	241	1,703	17,690	17,602	100%	85.9%	79.1%	65.7%
Irvine Ranch	3,329	0	1,175	5	4,508	41,145	39,822	103%	99.8%	99.7%	99.1%
DRWF Clear	2,115	-	-	-	2,115	13,943	18,298	76%	na	na	na
DRWF Color	674	-	-	-	674	5,683	5,572	102%	na	na	na
Laguna Beach	159	0	0	150	309	2,482	2,302	na	51.5%	63.2%	44.3%
La Palma	135	0	0	0	135	1,321	1,233	107%	100.0%	100.0%	100.0%
Mesa Water (MW)	1,191	0	31	0	1,222	11,595	11,354	102%	100.0%	96.4%	88.2%
MW Clear	952	-	-	-	952	8,126	6,597	123%	na	na	na
MW Amber	239	-	-	-	239	1,994	2,965	67%	na	na	na
Newport Beach	(159)	0	22	1,079	941	9,951	9,744	102%	-17.3%	56.5%	68.6%
Orange	1,664	0	0	158	1,822	18,763	17,967	104%	91.3%	80.0%	81.5%
OCWD (GAP)	126	0	0	0	126	999	1,187	84%	100.0%	100.0%	100.0%
Santa Ana	2,428	0	13	2	2,443	22,702	22,592	100%	99.9%	80.6%	78.4%
Seal Beach	217	0	0	0	217	2,211	2,266	98%	99.9%	60.0%	58.2%
Serrano	51	0	0	114	165	1,732	1,748	99%	31.1%	80.1%	79.6%
Tustin	717	0	0	3	720	7,125	6,847	104%	99.5%	95.8%	91.0%
Westminster	743	0	0	30	773	7,216	7,177	101%	96.2%	77.9%	76.9%
Yorba Linda	584	0	0	1,030	1,614	13,313	12,470	107%	36.2%	74.6%	79.4%
SUBTOTAL:	19,857	0	1,259	5,962	27,078	263,340	255,005	103%	77.2%	79.9%	82.0%
Other Producers (Est ~3% of Subtotal)	373	0	0	8	381	3,698	5,094	73%			
TOTAL:	**20,230**	**0**	**1,259**	**5,970**	**27,458**	**267,038**	**260,098**		**77.2%**	**79.9%**	**82.0%**
OCWD (Talbert Barrier)	0		1,483	0	1,483	17,354	19,009				
OCSD (GAP)	na		82	na	82	785	541				

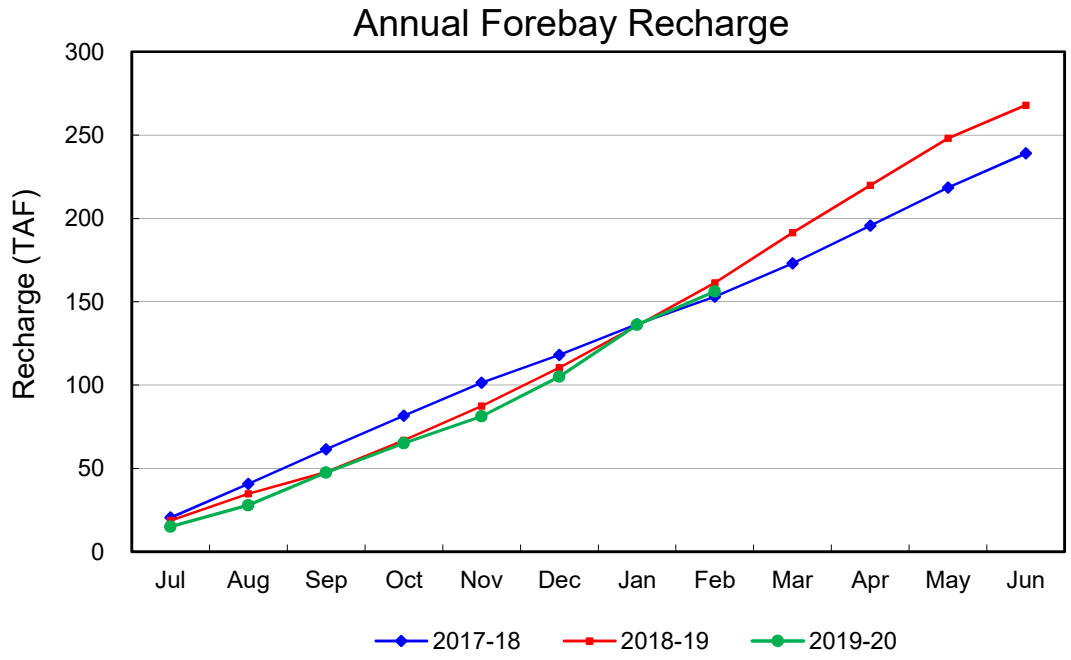
Estimated

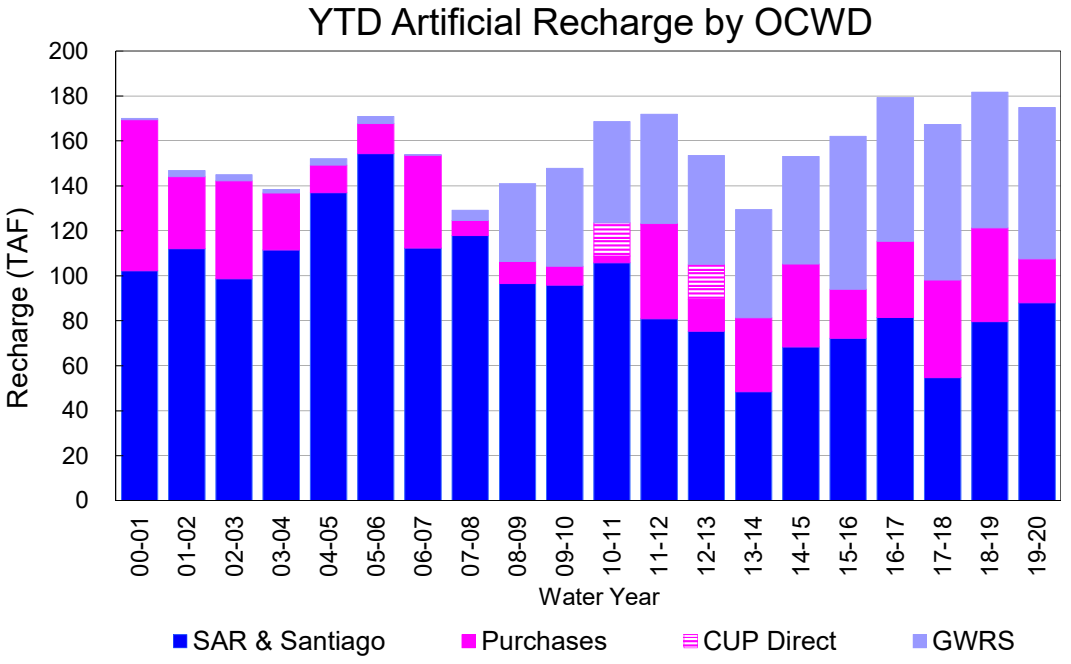
(1) Excludes MWD CUP Withdrawals

(2) Includes MWD CUP Withdrawals & In Lieu Water


Annual Groundwater Production
Production (TAF)
350
300
250
200
150
100
50
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
2017-18
2018-19
2019-20


YTD Total Demand in OCWD
Total Demand (TAF)
400
350
300
250
200
150
100
50
0
99-00
00-01
01-02
02-03
03-04
04-05
05-06
06-07
07-08
08-09
09-10
10-11
11-12
12-13
13-14
14-15
15-16
16-17
17-18
18-19
19-20
Water Year
Groundwater
MWD+OCWD In Lieu
CUP Withdrawals
Import
Recycled Water


Annual Forebay Recharge
Recharge (TAF)
300
250
200
150
100
50
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
2017-18
2018-19
2019-20


YTD Artificial Recharge by OCWD
Recharge (TAF)
200
180
160
140
120
100
80
60
40
20
0
00-01
01-02
02-03
03-04
04-05
05-06
06-07
07-08
08-09
09-10
10-11
11-12
12-13
13-14
14-15
15-16
16-17
17-18
18-19
19-20
Water Year
SAR & Santiago
Purchases
CUP Direct
GWRS

RECHARGE AREAS REPORT
February 2020

	Percolation (AF)	Remarks
RIVER SYSTEM	4,614	80 cfs per day average
DESILTING SYSTEM	na	
OFF-RIVER SYSTEM	653	SAR
WARNER SYSTEM	840	SAR
OLIVE BASIN	na	Passive System
ANAHEIM LAKE	1,077	SAR
MINI-ANA LAKE	0	SAR
MILLER BASIN	911	GWRS, SAR
KRAEMER BASIN	676	SAR
LA PALMA BASIN	4,645	
MIRA LOMA	949	GWRS
LA JOLLA BASIN	250	
PLACENTIA BASIN	na	
RAYMOND BASIN	108	
FIVE COVES BASIN	na	SAR
BURRIS BASIN	1,176	
RIVER VIEW BASIN	32	
FLETCHER BASIN	11	
SANTIAGO BASINS	4,052	
SANTIAGO CREEK	42	
TOTALS	**20,036**	
5-YR AVERAGE	**20,321**	

FLOWS TO RECHARGE AREAS (AF)		
Imperial Headgates (estimated)		9,359
GWRS		6,328
OC-28 (MWD)		0
OC-28a (MWD)		0
CB-11		0
CB-18		0
Est'd local Forebay inflow below Imperial		283
Est'd local Santiago inflow (estimated)		58
Irvine lake releases (OC-13 MWD)		0
Villa Park Dam releases (estimated)		0
Precip at Warner Basin (inches)	0.15	
Precip direct to open water surfaces		9
TOTAL INFLOW		16,036

LOSSES FROM RECHARGE AREAS (AF)		
Est'd SAR flow past Chapman Ave.		0
Est'd Santiago Cr. flow to SAR		0
Est'd flows past Raymond Basin		0
Calc'd evap (inches) Estimated	3.01	
Est'd evaporative losses		176
TOTAL LOSSES		**176**

STORAGE CHANGES (AF)			
Facility	*Begin*	*End*	*Net*
Deep basins	8,924	7,774	-1,150
Santiago Pits	13,154	10,128	-3,026
River			0
Off-river			0
Irvine Lake			
TOTAL	22,078	17,902	-4,176

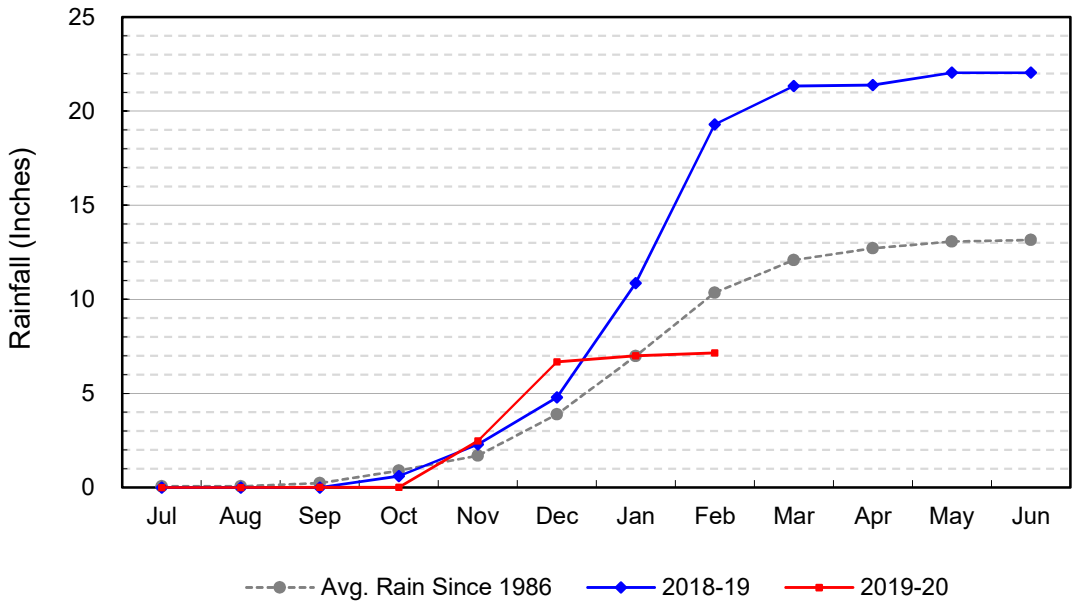
SUMMARY (AF)	
TOTAL INFLOW	16,036
TOTAL LOSSES	176
STORAGE CHANGE	-4,176
CALC'D PERCOLATION	20,036

DEEP BASINS MONTHLY STATUS
February 2020

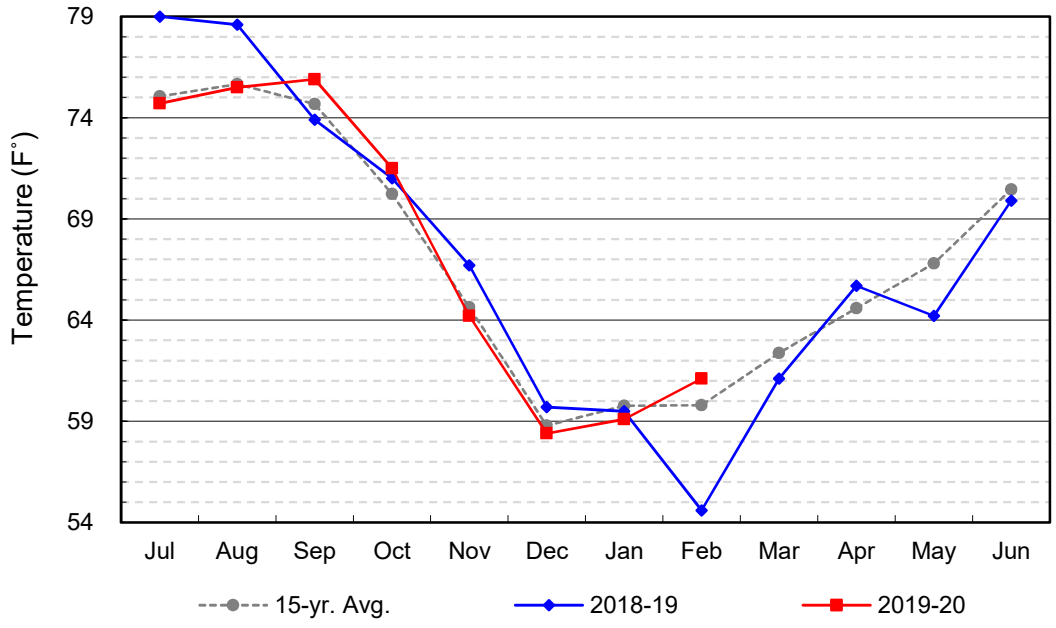
(values in acre-feet)

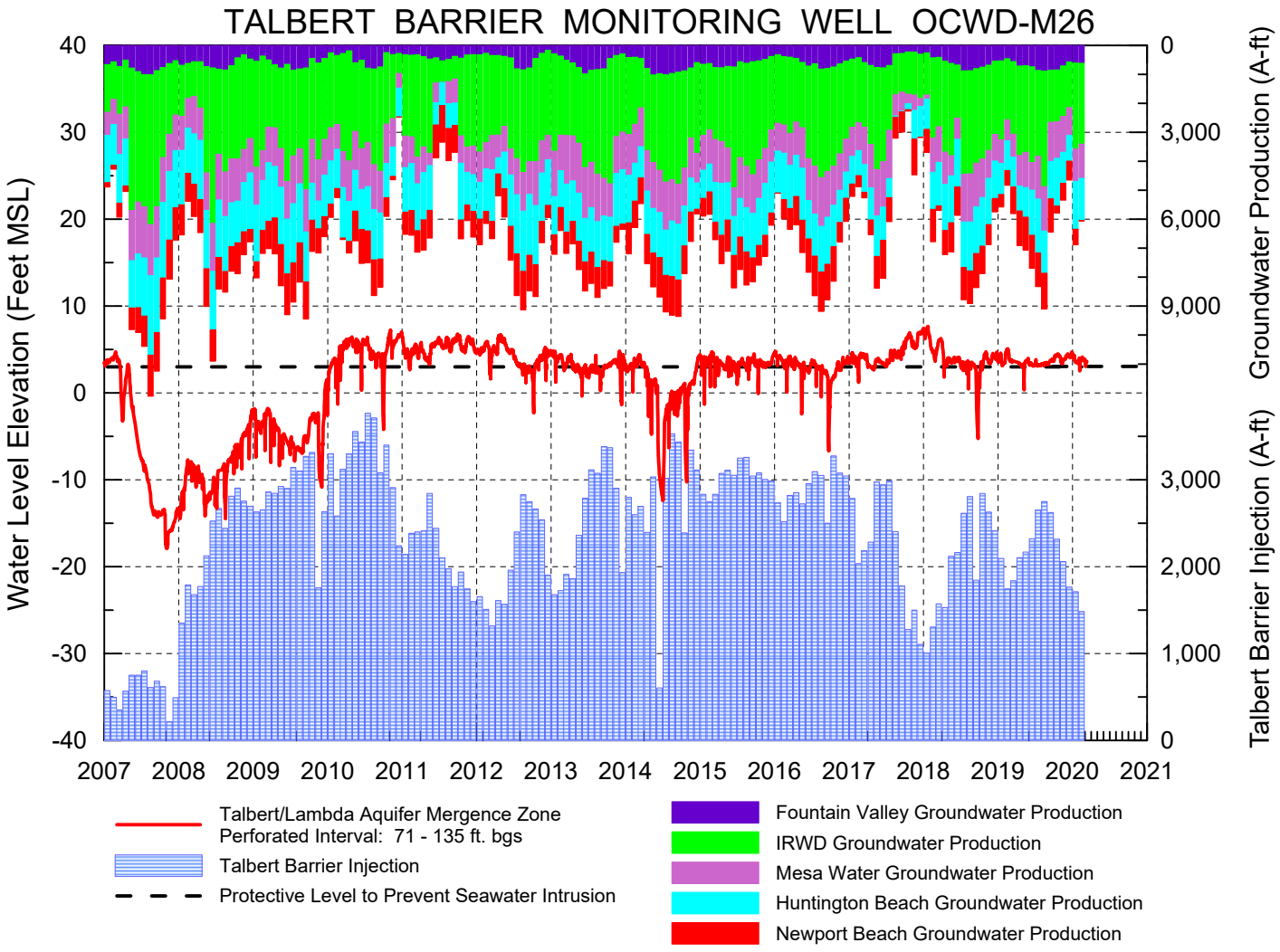
Facility	*Storage Start*	*Storage End*	*Maximum Storage*	*Total Perc*	*Max Perc*	*Avg Perc*	*Avg W.S. Elev*
Desilting Ponds	200	200	230	na	na	na	na
Fos-Huckleberry	522	539	630	na	na	na	na
Conrock Basin	540	560	660	na	na	na	na
Warner Basins	2,861	2,854	2,810	840	na	na	na
Olive Pit	41	50	183	na	na	na	na
Anaheim Lake	1,362	601	2,300	1,077	49	37	201
Mini-Anaheim Lk	0	0	21	0	0	0	220
Miller Basin	41	23	340	911	64	31	205
Kraemer Basin	672	280	1,050	676	82	23	183
La Palma Basin	87	83	105	4,645	182	160	218
Mira Loma	44	49	62	949	37	33	219
La Jolla Basin	16	8	36	250	18	9	201
Placentia Basin	0	0	350	na	na	na	na
Raymond Basin	40	40	370	108	na	na	na
Five Coves Basins	235	238	350	na	na	na	na
Burris Pit	2,246	2,239	2,670	1,176	61	41	169
River View Basin	6	3	12	32	4	1	187
Fletcher Basin	11	7	15	11	3	0	188
Santiago (Bond)	8,117	6,622	8,690	4,052	194	136	275
Santiago (Blu Dia)	5,037	3,506	5,240	-	-	-	-
Totals	22,078	17,902	26,124	14,727			
Prado Dam	15	4	25,000				

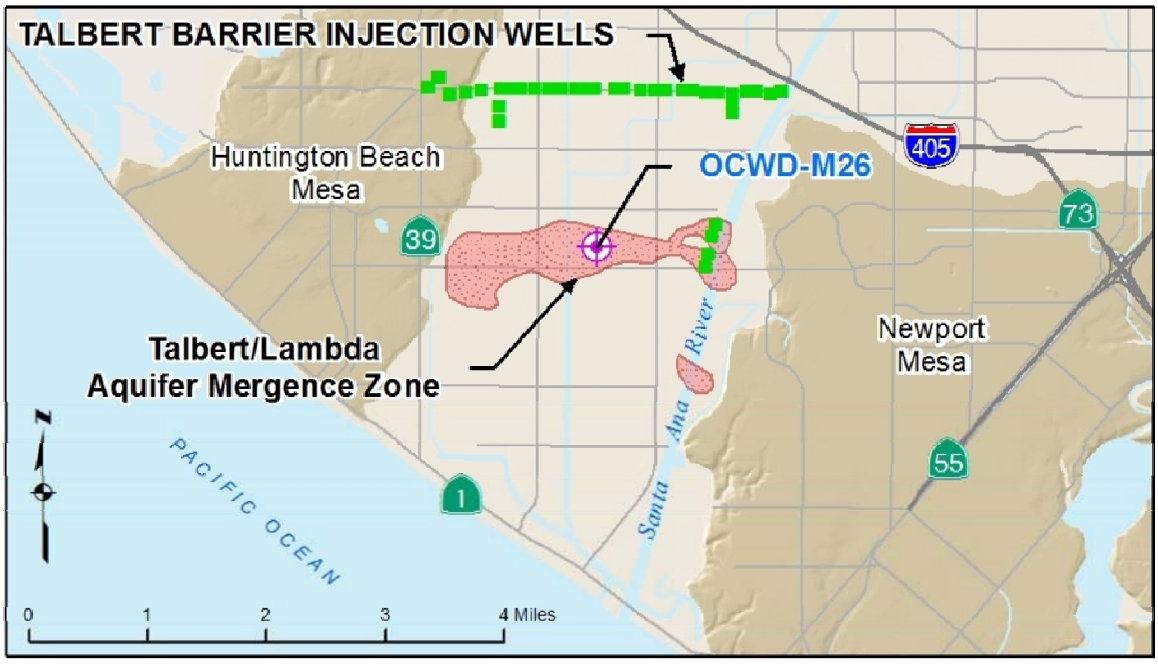
Cumulative Anaheim Field HQ Rainfall



Temperature at Santa Ana Fire Station




TALBERT BARRIER MONITORING WELL OCWD-M26
Water Level Elevation (Feet MSL)
Groundwater Production (A-ft)
Talbert Barrier Injection (A-ft)
40
30
20
10
0
-10
-20
-30
-40
0
3,000
6,000
9,000
3,000
2,000
1,000
0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Talbert/Lambda Aquifer Mergence Zone
Perforated Interval: 71 - 135 ft. bgs
Talbert Barrier Injection
Protective Level to Prevent Seawater Intrusion
Fountain Valley Groundwater Production
IRWD Groundwater Production
Mesa Water Groundwater Production
Huntington Beach Groundwater Production
Newport Beach Groundwater Production


TALBERT BARRIER INJECTION WELLS
Huntington Beach
Mesa
OCWD-M26
405
73
39
Talbert/Lambda
Aquifer Mergence Zone
Newport
Mesa
Santa Ana River
PACIFIC OCEAN
55
1
N
0
1
2
3
4 Miles

S A W P A

SANTA ANA WATERSHED PROJECT AUTHORITY

11615 Sterling Avenue, Riverside, California 92503 • (951) 354-4220

REGULAR COMMISSION MEETING
TUESDAY, MARCH 17, 2020 – 9:30 A.M.

AMENDED
AGENDA

1. **CALL TO ORDER/PLEDGE OF ALLEGIANCE (David J. Slawson, Chair)**

2. **ROLL CALL**

3. **PUBLIC COMMENTS**

   Members of the public may address the Commission on items within the jurisdiction of the Commission; however, no action may be taken on an item not appearing on the agenda unless the action is otherwise authorized by Government Code §54954.2(b).

4. **CONSENT CALENDAR**

   All matters listed on the Consent Calendar are considered routine and non-controversial and will be acted upon by the Commission by one motion as listed below.

   A. **APPROVAL OF MEETING MINUTES: MARCH 3, 2020**
   Recommendation: Approve as posted.

5. **WORKSHOP DISCUSSION AGENDA**

   A. **SALTON SEA AUTHORITY | SALT MANAGEMENT STRATEGIES**
   Presenter: Phil Rosentrater, Salton Sea Authority General Manager/Executive Director
   Recommendation: Receive and file.

6. **NEW BUSINESS**

   A. **OVERVIEW OF THE SANTA ANA RIVER TRAIL (CM#2020.18)**
   Presenter: Ian Achimore
   Recommendation: Receive and file.

B. MEMORANDUM OF UNDERSTANDING (MOU) | SANTA ANA WATERSHED PROJECT AUTHORITY (SAWPA) AND WESTERN MUNICIPAL WATER DISTRICT (WMWD) (CM#2020.20)
Presenter: Carlos Quintero
Recommendation: Authorize the General Manager to execute the revised Memorandum of Understanding between the Santa Ana Watershed Project Authority (SAWPA) and Western Municipal Water District (WMWD) establishing the terms for the cost allocation of the SAWPA parking lot restoration.

C. SAWPA BUILDING RENOVATIONS | PHASE 2 (CM#2020.19)
Presenter: Carlos Quintero
Recommendation: Approve the use of $120,000 from the Building Reserve Fund to continue Phase 2 of the SAWPA Building Renovation effort.

D. STRATEGIC PLAN FACILITATOR CONSULTANT SERVICES AWARD OF CONTRACT (CM#2020.21)
Presenter: Rich Haller
Recommendation: Direct the General Manager to execute an agreement for services with Water Systems Consulting, Inc. for Strategic Plan Facilitator Consultant Services in an amount not to exceed $79,330.00.

E. COVID-19 | DISCUSSION AND POSSIBLE ACTION
Presenter: Rich Haller
Recommendation: Receive and discuss information; provide direction to staff regarding Coronavirus (COVID-19).

7. INFORMATIONAL REPORTS
Recommendation: Receive for information.

A. CASH TRANSACTIONS REPORT – JANUARY 2020
Presenter: Karen Williams

B. INTER-FUND BORROWING – JANUARY 2020 (CM#2020.16)
Presenter: Karen Williams

C. PERFORMANCE INDICATORS/FINANCIAL REPORTING – JANUARY 2020 (CM#2020.17)
Presenter: Karen Williams

D. GENERAL MANAGER REPORT

E. STATE LEGISLATIVE REPORT
Presenter: Rich Haller

F. SAWPA GENERAL MANAGERS MEETING NOTES
March 10, 2020

G. CHAIR'S COMMENTS/REPORT

H. COMMISSIONERS' COMMENTS

I. COMMISSIONERS' REQUEST FOR FUTURE AGENDA ITEMS

8. CLOSED SESSION

There were no Closed Session items anticipated at the time of the posting of this agenda.

9. ADJOURNMENT

Americans with Disabilities Act: If you require any special disability related accommodations to participate in this meeting, call (951) 354-4220 or email kberry@sawpa.org. 48-hour notification prior to the meeting will enable staff to make reasonable arrangements to ensure accessibility for this meeting. Requests should specify the nature of the disability and the type of accommodation requested.

Materials related to an item on this agenda submitted to the Commission after distribution of the agenda packet are available for public inspection during normal business hours at the SAWPA office, 11615 Sterling Avenue, Riverside, and available at www.sawpa.org, subject to staff's ability to post documents prior to the meeting.

Declaration of Posting
I, Kelly Berry, Clerk of the Board of the Santa Ana Watershed Project Authority declare that on March 12, 2020, a copy of this AMENDED agenda has been uploaded to the SAWPA website at www.sawpa.org and posted at the SAWPA office, 11615 Sterling Avenue, Riverside, California

/s/
_____
Kelly Berry, CMC

2020 SAWPA Commission Meetings/Events

First and Third Tuesday of the Month
(NOTE: Unless otherwise noticed, all Commission Workshops/Meetings begin at **9:30 a.m.** and are held at SAWPA.)

January		**February**	
1/7/20	~~Commission Workshop~~ [cancelled]	2/4/20	Commission Workshop
1/21/20	Regular Commission Meeting	2/18/20	Regular Commission Meeting
March		**April**	
3/3/20	Commission Workshop	4/7/20	Commission Workshop
3/17/20	Regular Commission Meeting	4/21/20	Regular Commission Meeting
May		**June**	
5/5/20	Commission Workshop	6/2/20	Commission Workshop
5/5 – 5/8/20	ACWA Spring Conference, Monterey	6/16/20	Regular Commission Meeting
5/19/20	Regular Commission Meeting		
July		**August**	
7/7/20	Commission Workshop	8/4/20	Commission Workshop
7/21/20	Regular Commission Meeting	8/18/20	Regular Commission Meeting
September		**October**	
9/1/20	Commission Workshop	10/6/20	Commission Workshop
9/15/20	Regular Commission Meeting	10/20/20	Regular Commission Meeting
November		**December**	
11/3/20	Commission Workshop	12/1/20	Commission Workshop
11/17/20	Regular Commission Meeting	12/1 – 12/4/20	ACWA Fall Conference, Indian Wells
		12/15/20	Regular Commission Meeting

ACTION AGENDA
PROPERTY MANAGEMENT COMMITTEE MEETING
Friday, February 28, 2020, 12:00 p.m. Conference Room C-2

ROLL CALL Steve Sheldon Denis Bilodeau Kelly Rowe Dina Nguyen (absent) Jordan Brandman (absent) <u>Alternates</u> Ahmad Zahra Cathy Green Tri Ta Roger Yoh Vicente Sarmiento (absent)	Quorum of Cte: Yes Quorum of Board: yes
CONSENT CALENDAR (ITEM NO. 1-2)	
1. MINUTES OF PROPERTY MANAGEMENT COMMITTEE MEETING HELD JANUARY 24, 2020 RECOMMENDATION: Approve minutes as presented	Approved
2. CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) PROPERTY AT BURRIS BASIN AND GENTRY GOLF, INC. D.B.A. THE ISLANDS CENTER LEASEHOLD RECOMMENDATION: Agendize for March 18 Board meeting: Authorize the General Manager to execute a new six-month Airspace Rental Agreement with Caltrans at a rent of $736 per month for the 1.3-acre property, subject to approval by legal counsel	Approved
INFORMATIONAL ITEM	
3. PRESENTATION BY PROFESSOR JAY SEIDEL REGARDING THE FULLERTON COLLEGE DRONE PROGRAM	Informational
CHAIR DIRECTION AS TO ITEMS TO AGENDIZE AS MATTERS FOR CONSIDERATION AT THE MARCH 18 BOARD MEETING	Item No. 2
ADJOURNMENT	

ACTION AGENDA

ADMINISTRATION/FINANCE ISSUES COMMITTEE MEETING

Thursday, March 12, 2020, 8:00 a.m. - Conference Room C-2

ROLL CALL Tri Ta Roger Yoh Dina Nguyen (absent) Kelly Rowe Ahmad Zahra Alternates Cathy Green (absent) Steve Sheldon Jordan Brandman (absent) Denis Bilodeau Vicente Sarmiento	Quorum of Cte: Yes Quorum of Board: Yes
CONSENT CALENDAR (ITEMS NO. 1 – 5)	
1. MINUTES OF ADMINISTRATION/FINANCE ISSUES COMMITTEE MEETING HELD FEBRUARY 13, 2020	Approved
RECOMMENDATION: Approve minutes as presented	
2. MONTHLY CASH CONTROL REPORT	Approved
RECOMMENDATION: Agendize for March 18 Board meeting: Receive and file Summary Cash and Cash Equivalents Control Reports dated February 29, 2020	
3. INVESTMENT PORTFOLIO HOLDINGS REPORTS	Approved
RECOMMENDATION: Agendize for March 18 Board meeting: Receive and file the Investment Portfolio Holdings Reports dated February 29, 2020	
4. MEMORANDUM OF UNDERSTANDING WITH CALIFORNIA STATE UNIVERSITY, FULLERTON (CSUF) AUXILIARY SERVICES CORPORATION FOR THE CONTINUED OPERATION OF THE CENTER FOR DEMOGRAPHIC RESEARCH RECOMMENDATION: Agendize for March 18 Board meeting: 1) Approve and authorize execution of Memorandum of Understanding with California State University, Fullerton Auxiliary Services Corporation for the Continued Operation of the Center for Demographic Research renewing commitment for the period of July 1, 2020 - June 30, 2023; and 2) Authorize payment in the amount of $53,100.32 to California State University Fullerton Auxiliary Services Corporation, to be invoiced on a quarterly basis	Approved
5. OPERATIONAL EFFICIENCY STUDY RECOMMENDATION: Agendize for March 18 Board meeting: Authorize issuance of an Agreement to Bookey Oren Global Water Technologies Ltd. in an amount not to exceed $68,000 in accordance with its proposal dated February 20, 2020	Approved
END OF CONSENT CALENDAR	
6. WIFIA INTERST RATE REDUCTION REQUEST RECOMMENDATION: Agendize for March 18 Board meeting: Adopt Resolution authorizing execution and delivery of an amendment to/or re-execution and delivery of the WIFIA Loan Agreement to lower the interest rate therein and costs not to exceed $190,000	Approved

INFORMATIONAL ITEMS	
7. PROPOSED FY 2020-21 BUDGET REPLACEMENT & REFURBISHMENT (R&R) FUND EXPENDITURE REVIEW	Informational
8. MONTHLY CASH DISBURSEMENTS REPORT	Informational
CHAIR DIRECTION AS TO WHICH ITEMS IF ANY TO BE AGENDIZED AS MATTERS FOR CONSIDERATION AT MARCH 18 BOARD MEETING	**Consent: Items No. 2-6**
ADJOURNMENT	**8:50 a.m.**

ACTION AGENDA
COMMUNICATIONS AND LEGISLATIVE LIAISON COMMITTEE MEETING
March 5, 2020 8:00 a.m. - Conference Room C-2

ROLL CALL Cathy Green Jordan Brandman (absent) Steve Sheldon (absent) Roger Yoh Ahmad Zahra **Alternates** Tri Ta Kelly Rowe Dina Nguyen Denis Bilodeau (absent) Vicente Sarmiento	Quorum of Cte: Yes Quorum of Board: Yes
CONSENT CALENDAR (ITEM NO. 1)	
1.MINUTES OF COMMUNICATIONS AND LEGISLATIVE LIAISON COMMITTEE MEETING HELD FEBRUARY 6, 2020 RECOMMENDATION: Approve minutes as presented	Approved
END OF CONSENT CALENDAR	
MATTERS FOR CONSIDERATION	
2. STATE LEGISLATIVE UPDATE RECOMMENDATION: Agendize for March 18 Board meeting: Take action as appropriate	Informational
3. FEDERAL LEGISLATIVE UPDATE RECOMMENDATION: Agendize for March 18 Board meeting: Take action as appropriate	Informational
INFORMATIONAL ITEMS	
4. 24TH ANNUAL CHILDREN'S WATER EDUCATION FESTIVAL UPDATE	Informational
5. 13TH ANNUAL ORANGE COUNTY WATER SUMMIT	Informational
6. PUBLIC AFFAIRS OUTREACH REPORT (FEBRUARY 2020)	Informational
ADJOURNMENT	**8:50 a.m.**

ACTION AGENDA
WATER ISSUES COMMITTEE MEETING
Wednesday, March 11, 2020 8:00 a.m.

ROLL CALL Cathy Green Dina Nguyen (absent) Ahmad Zahra Jordan Brandman (absent) Tri Ta <u>Alternates</u> Steve Sheldon (absent) Roger Yoh (absent) Kelly Rowe Denis Bilodeau (via teleconference) Vicente Sarmiento	Quorum of Cte: Yes Quorum of Board: Yes
CONSENT CALENDAR (ITEMS NO. 1 –7)	
1. MINUTES OF WATER ISSUES COMMITTEE MEETING HELD FEBRUARY 12, 2020 RECOMMENDATION: Approve minutes as presented	Approved
2.AMENDMENT NO. 2 TO AGREEMENT NO. 1175 WITH INTERA, INC. EXTENDING ALAMITOS GROUNDWATER MODEL INTO SUNSET GAP RECOMMENDATION: Agendize for March 18 Board meeting: Authorize issuance of Amendment No. 2 to Agreement No. 1175 with Intera, Inc., in the amount of $48,320 to recover calibration costs, conduct seven additional predictive simulations, and complete model documentation for the Alamitos-Sunset Gap groundwater model	Approved
3. PURCHASE ORDER TO QUINN COMPANY FOR A CATERPILLAR 950M FRONT END LOADER RECOMMENDATION: Agendize for March 18 Board meeting: Authorize issuance of a Purchase Order to Quinn Company in the amount of $407,302 for a Caterpillar Tier 4 Model 950M front end loader and authorize the surplus and sale of the existing RT-17 front end loader	Approved
4. NOTICE OF COMPLETION FOR CONTRACT GBM-2019-1: DRILLING, CONSTRUCTION, AND DEVELOPMENT OF REPLACEMENT MONITORING WELL OCWD-M43R AT ORANGE COAST COLLEGE RECOMMENDATION: Agendize for March 18 Board meeting: 1) Ratify issuance of Change Order Nos. 1 and 2; and 2) Accept completion of work and authorize filing a Notice of Completion for Contract GBM-2019-1, Drilling, Construction, and Development of Replacement Nested Monitoring Well OCWD-M43R	Approved
5. RATIFY PAYMENT TO W.A. RASIC CONSTRUCTION AND AUTHORIZE ISSUANCE OF AGREEMENT WITH JAMISON ENGINEERING FOR GWRS PIPELINE REPAIR WORK AND W.A. RASIC CONSTRUCTION FOR FUTURE GWRS PIPELINE REPAIR WORK 1) Ratify Work Order No. 2 of Agreement No. 1291 to W.A. Rasic Construction Company, Inc. for emergency repair of the 7 8-inch GWRS pipeline in December 2019 in the amount of $57,302; 2) Authorize Issuance of Agreement with Jamison Engineering for the installation of interior seals on the GWRS pipeline in the amount of $35,000; and 3) Authorize issuance of an emergency repair work order to W.A. Rasic Construction for the repair of the GWRS pipeline couplings in the amount of $180,000.	Approved

6. AMENDMENT TO BLACK & VEATCH FOR DESIGN PHASE SERVICES AND NOTICE INVITING BIDS FOR THE GWRS FINAL EXPANSION PLANT 2 SECONDARY EFFLUENT PIPELINE REHABILITATION PROJECT RECOMMENDATION: Agendize for March 18 Board meeting: 1) Authorize issuance of Amendment No. 5 to Agreement No. 1248 with Black & Veatch for design phase services for the GWRS Final Expansion Project for an amount not to exceed $37,850; and 2) Authorize advertisement of Notice Inviting Bids for the GWRS Final Expansion Plant 2 Secondary Effluent Pipeline Rehabilitation Project	Approved
INFORMATIONAL ITEMS	
7. MUNICIPAL WATER DISTRICT OF ORANGE COUNTY – COOPERATIVE PROJECTS WITH SOUTH ORANGE COUNTY AGENCIES	Informational
8. PROPOSED FISCAL YEAR 2020-21 WATER PURCHASE BUDGET	Informational
CHAIR DIRECTION AS TO ITEMS IF ANY TO BE AGENDIZED AS MATTERS FOR CONSIDERATION AT THE MARCH 18 BOARD MEETING	
ADJOURNMENT	**8:50 a.m.**