



# ENGINEERING AND OPERATIONS COMMITTEE MEETING

Thursday, March 10, 2022  
4:00 p.m.

1. Call meeting to order
2. Public communications to the Committee
3. Additional items arising after posting of agenda
4. Engineering
  - RZ System
    - A. Activation of Water Shortage Contingency Plan Level 2
    - B. General PFAS Update – Information
    - C. Vista Panorama Reservoir Replacement Project Update – Information
  - WZ System
    - D. OC43 Walnut Turnout Vault Replacement Project – Award of Contract Amendment #2 with Black and Veatch
  - Sewer System
    - E. ID1 CRA Project #1 Construction Package #1 – Increase Contingency, Approval of PSA Amendment #1 to HDR Engineering, and Approval of PSA Amendment #1 to Butier Engineering
    - F. Sewer Development Permits – Information
  - Joint – No Items
5. Operations
  - RZ System
    - A. East & West Well – Pumping Level Information – Handout
    - B. RZ Water Use – Monthly Report – Information
  - WZ System
    - C. WZ Water Use – Monthly Report – Information
  - Sewer System
    - D. Spill Report – No sewer spills in January or February
6. Adjournment

**NOTE:** On March 4, 2020, California Governor Newsom declared a State of Emergency in California as a result of the COVID-19 Pandemic, for which State and Orange County Public Health Officials have continued to recommend measures to promote social distancing. Pursuant to Government Code Section 54953, and corresponding findings of the Board that currently remain in effect (1) members of the Board of Directors and public may elect to attend this Regular Meeting by telephone or video conference due to concerns relative to COVID-10 Coronavirus and avoidance of public gatherings, and (2) **THERE WILL BE NO PUBLIC LOCATION TO ATTEND THIS MEETING IN PERSON.** The public may attend either telephonically by calling into, or by videoconference by logging into, the meeting at:

**To Access the Meeting by Computer/Device:**

<https://us02web.zoom.us/j/87656169700?pwd=Q2JOc3BBSURJbVZmNFdiYlpjeXpmQT09>  
or via short link <https://bit.ly/3pLCIpM>

**To Access the meeting by Phone:**

Dial: (669) 900-6833

Meeting ID: 876 5616 9700 Passcode: 580640

Members of the public shall be permitted to speak live at the meeting as to both agendized and non-agendized items, as reflected in the agenda, utilizing the above-referenced internet or telephone options. Those wishing to speak may either submit a speaker request via the on-line chat feature before an item is heard, or by verbally indicating their desire to comment at the time the item is called. Additionally, members of the public may, but are not required to, e-mail comments to Sylvia Prado at [sprado@eocwd.com](mailto:sprado@eocwd.com) up to 30 minutes before the Committee meeting, and such comments shall be provided to the Committee. Members of the public wishing to attend the meeting that require other reasonable modifications or accommodation to facilitate such attendance should contact Ms. Prado at (714) 538-5815 or the e-mail provided as soon as feasible before the meeting to make such request.

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the East Orange County Water District Engineering & Operations Committee in connection with a matter subject to discussion or consideration at an open meeting of the Engineering & Operations Committee are available for public inspection in the District's office, 185 McPherson Road, Orange, California ("District Office"). If such writings are distributed to members of the Committee less than 72 hours prior to the meeting, they will be available via phone or email request to Ms. Sylvia Prado at (714) 538-5815 or [sprado@eocwd.com](mailto:sprado@eocwd.com).

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: ACTIVATION OF WATER SHORTAGE CONTINGENCY PLAN LEVEL 2**  
**DATE: MARCH 10, 2022**

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## BACKGROUND

On June 17, 2021, the Board adopted the 2020 Water Shortage Contingency Plan (WSCP) as a stand-alone document to address water shortage contingency planning in the event of drought and other events. The WSCP includes strategies to respond to each level of water shortage.

The State of California is in its third year of drought. In preparation for a third year of dry conditions, on October 19, 2021 Governor Newsom issued a Proclamation of a State of Emergency (Proclamation) to expand the pre-existing drought declaration to cover Orange County and the other seven remaining counties in the state that were not previously in a declared drought. Included in the Proclamation was direction to local water suppliers to execute their WSCPs at a level appropriate to local conditions, in addition to the continued call for local agencies to voluntarily reduce their water use by 15% from 2020 levels. Since the Proclamation occurred at the very beginning of the rainy season and the “water year”, staff elected to align the activation with warmer and drier weather after the rainy season to increase the impact of the drought messaging and the likelihood of conservation.

January and February were the driest ever recorded in most of California. The Department of Water Resources recently announced that statewide snowpack had dwindled to 63% of average for this time of year, a significant reduction from the 160% measured in December, and confirmation of another year of drought.

In alignment with Municipal Water District of Orange County and other agencies, staff recommends the activation of WSCP Level 2, with a shortage range of 11% to 20%, as it is the level consistent with State and the Governor’s call for a voluntary 15% reduction in water use from 2020 levels.

## RECOMMENDATION

That the Committee support staff submitting a Resolution to the Board for approval to declare Water Conservation Level 2 to be in effect and its implementation.

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: GENERAL PFAS UPDATE**  
**DATE: MARCH 10, 2022**

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## BACKGROUND

Staff has not received any customer inquiries or complaints regarding PFAS in the past month.

The following PFAS related events and information have been received during the past month:

- OCWD Meetings – Information disseminated at the Special PFAS and Producers meetings included:
  - OCWD PFAS Pilot Program – In February, four exhausted Phase I ion exchange (IX) or novel sorbent products were decommissioned and replaced with four different IX resins. With the addition of these four new resins, the total number of products being tested in OCWD’s ongoing Phase II pilot program is now up to 10 total.
  - Public Outreach – The next OCWD PFAS Update, prepared quarterly, is expected in April.
  - PFAS monitoring orders – The District continues quarterly monitoring for PFOA and PFOS in accordance with the current orders.
  - Proposed Legislation:
    - HR 2467 - PFAS Action Act of 2021. This bill establishes requirements and incentives to limit the use of perfluoroalkyl and polyfluoroalkyl substances, commonly referred to as PFAS, and remediate PFAS in the environment. The bill directs the Environmental Protection Agency (EPA) to designate the PFAS perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) as a hazardous substances under CERCLA, thereby requiring remediation of releases of those PFAS into the environment. Within five years, the EPA must determine whether the remaining PFAS should be designated as hazardous substances. The EPA must also determine whether PFAS should be designated as toxic pollutants under the Clean Water Act. If PFAS are designated as toxic, then the EPA must establish standards to limit discharges of PFAS from industrial sources into waters of the United States. In addition, the EPA must issue a national primary drinking water regulation for PFAS that, at a minimum, includes standards for PFOA and PFOS. The Bill is in Senate Committee.
    - HR 3291 - Assistance, Quality, and Affordability Act of 2021. This Bill would amend the Safe Drinking Water Act to provide assistance for States, territories, areas affected by natural disasters, and water systems and schools affected by PFAS or lead, and to require the Environmental Protection Agency to promulgate national primary drinking water regulations for PFAS, microcystin toxin, and 1,4-dioxane, and for other purposes. The Bill is in House Committee.

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- SB 230 - State Water Resources Control Board: Constituents of Emerging Concern in Drinking Water Program. This bill would require the state board to establish, maintain, and direct a dedicated program called the Constituents of Emerging Concern in Drinking Water Program for 5 years to assess the state of information and recommend areas for further study on, among other things, the occurrence of constituents of emerging concern (CEC) in drinking water sources and treated drinking water. The bill would require the state board to convene, by an unspecified date, the Science Advisory Panel for 3 years to review and provide recommendations to the state board on CECs for further action, among other duties. The Bill is in the Assembly.
  - PFAS Treatment Plant – The PFAS Treatment plant is under construction and staff expects it to be completed in early 2023.
  - Wells – In February, staff sent a request to the State Department of Drinking Water to put the West Well in standby status due to inadvertent shutdowns during flushing and the need for repairs. The East Well is still in active status although it will also remain off except for flushing and water quality testing so that in the event of an emergency it can be turned back on immediately.

### FINANCIAL IMPACT

No direct financial impact is associated with this report.

### RECOMMENDATION

Information Only.

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: VISTA PANORAMA RESERVOIR REPLACEMENT PROJECT – UPDATE**  
**DATE: MARCH 10, 2022**

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## Background

The Vista Panorama Reservoir, hydropneumatic tank, and pump station provide domestic service and fire protection to a separate high elevation service area in Retail Zone Pressure Zones 1 and 2. Staff was nearing the completion of redesigning the reservoir replacement when concerned residents in the Vista Panorama community attended the Board meeting to voice their concerns in November of 2021. Staff has been keeping the residents apprised of the progress through periodic meetings and email updates.

Staff advertised the project for bid on February 14 to a select list of contractors. Six contractors and one electrical sub-contractor attended the pre-bid meeting on February 22. Bids are due on March 21 and staff expects to present the project to the Board for award in April.

## Financial Impact

Funds have been budgeted in Account #7202101 for the Vista Panorama Reservoir Replacement Project.

## Recommendation

Information only.

Attachments: None

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: OC-43 WALNUT TURNOUT VAULT REPLACEMENT PROJECT – AWARD OF CONTRACT AMENDMENT #2 WITH BLACK AND VEATCH**  
**DATE: MARCH 10, 2022**

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## Background

In May 2020, the Board awarded the OC-43 Walnut Turnout Vault Improvement Project to Black and Veatch, which was amended in October 2021 for a total contract amount of \$113,515. Their scope of work includes the design of a new vault and replacement piping as well as electrical and controls. A need to split the existing single vault facility into two vaults was identified to resolve a code issue with separate sources of power for each agency's equipment, to ensure clear lines of ownership, and to separate operations and maintenance costs. Black and Veatch proceeded on the design of the revised two vault configuration. In collaboration with City of Tustin staff, an agreement was developed that will enable a more cost-effective single vault installation. The joint agency agreement will also apply to the other joint turnout vaults that have both EOCWD and City of Tustin equipment. Once the agreement is approved, Black and Veatch will revise the design to one vault, develop the bid package, and provide engineering services during the bid and construction phases.

Staff recommends the Committee award Black and Veatch Contract Amendment #2, per the attached amendment request in the amount of \$59,620, to fund additional design work and engineering services during construction. This would increasing their total contract amount to \$173,135.

## Fiscal Impact

Funds have been budgeted in Account #7102143 for this project.

## Recommendation

That the Committee approve and authorize the General Manager to execute Contract Amendment #2 with Black and Veatch, in the amount of \$59,620, for a total contract amount of \$173,135, to fund the additional design work, develop the bid package, and provide engineering services during construction.

## Attachment:

Black and Veatch Amendment #2 Scope of Work



4 March 2022

Jeff Smyth, P.E.  
Engineering Manager  
East Orange County Water District  
185 N McPherson Rd  
Orange, CA 92869

Subject: **OC-43 Vault Improvement Project – Amendment No. 2**

Dear Jeff:

During the review of the original 30% PS&E submittal of the Project, EOCWD identified the need to split the facility into two vaults due to operational safety concerns and O&M on the separately owned facilities. BV proceeded on the design of the revised configuration; however, in the meantime the OC-43 facility ownership considerations evolved and the more cost-effective single vault installation is now possible. BV is now tasked to change the plans and specifications back to a single vault configuration, including associated civil, mechanical, electrical and control revisions.

In addition, we are including construction phase services in this Amendment No. 2 proposal, as follows:

## **Construction Phase Services**

### **Task 6.1 – Bid Phase Support**

Black & Veatch will prepare a Contract Document package for the project, suitable for public bidding by EOCWD. Black & Veatch will attend a Pre-Bid meeting, provide responses for up to five (5) bid phase Requests For Information, and assist EOCWD in bid review and contractor selection.

### **Task 6.2 – Shop Drawing and Submittal Reviews**

Black & Veatch will review shop drawings and submittal documents, as required by the Contract Documents. Black & Veatch will receive submittals and will provide response on a Word document submittal comments form. The form will be provided to EOCWD. Black & Veatch will recommend submittal disposition. Submittals will be returned no later than 2-weeks after receipt.

The level of effort for this task assumes up to 25 total submittal reviews (20 initial submittals and 5 resubmittals). The level of effort assumes a total of 58 hours as follows:

- Two complex submittals requiring 4 hours each
- Eighteen standard submittals requiring 2 hours each
- Two complex re-submittals requiring 4 hours each
- Three standard submittals requiring 2 hours each

**Assumptions:**

- Manufacturer's O&M manuals will be reviewed.
- EOCWD will provide a submittal comment form for each submittal. The provided form will include general submittal information including submittal number, date, description, due date, etc.. Black & Veatch submittal review comments will be documented on each submittal comment form provided and pdf attachments, if appropriate.
- All management of submittals including final documentation and distribution will be performed by EOCWD.

**Task 6.3 – Requests for Information**

Black & Veatch will render interpretation and responses to Contractor questions as necessary for the proper execution and progress of the work upon written request from the EOCWD. Black & Veatch will submit written responses to EOCWD accordingly, and will render all interpretations or decisions in good faith and in accordance with the requirements and intent of the Contract Documents.

Black & Veatch will not transmit any interpretations or clarifications directly to the Contractor. The level of effort for this task assumes up to five RFIs, two hours per response.

**Assumptions:**

- EOCWD will provide a RFI response form for each RFI. The provided form will include general RFI information including RFI number, date, description, due date, etc. Black & Veatch RFI responses will be documented on each RFI response form and pdf attachments.
- All management of RFIs including final documentation and distribution will be performed by EOCWD.

**Task 6.4 – Review of District & Contractor Prepared Change Orders**

This task includes a not to exceed allowance of twenty (20) hours of change order review services. Black & Veatch will review change orders upon written request from EOCWD, and will render all interpretations or decisions in good faith and in accordance with the requirements and intent of the Contract Documents. Black & Veatch will transmit change order reviews to EOCWD.

**Task 6.5 – Site Visits**

This task includes a not to exceed allowance of eight (8) hours across two site visits. Black & Veatch will attend a pre-construction onsite meeting and one progress site walk. Each site visit will require four hours and be attended by one Black & Veatch personnel.

**Task 6.6 – Testing and Start-Up Support**

This task includes a not to exceed allowance of eight (8) hours of testing and start-up support. Black & Veatch will correspond with EOCWD and provide support during testing and startup activities.

### **Task 6.7 – Progress Meetings**

Black & Veatch will attend construction progress meetings at the request of EOCWD via conference call for the review of construction progress and to clarify Contract Documents. Level of effort for this task assumes attendance at up to three meetings.

### **Task 6.8 – Preparation of Record Drawings**

Black & Veatch will review and update the contract drawings per redlines provided by Contractor and EOCWD. Level of effort for this task assumes the Contractor will provide pdf and paper copies of their construction as-built drawings and their electronic construction as-built AutoCAD drawings. It is also assumed that all changes initiated by RFI, field order, or other mechanism will be redlined on the Contract Documents by the Contractor or EOCWD and that no additional marking of drawings will be required by Black & Veatch. Upon completion of the facilities, Black & Veatch will finalize transfer of Contractor markups to permanent record digital files and drawings. Conformed to Construction Record drawings will be prepared based upon the information compiled and furnished by the Contractor.

Black & Veatch will submit the following to EOCWD:

- One full size electronic pdf copy of the conformed to construction records drawings.
- One copy of the AutoCAD conformed to construction records drawings.

The proposed not to exceed fee for the scope of work to complete Amendment 2 work is \$59,620, as summarized in the attached spreadsheet, which revises the total contract amount to \$173,135.

### **Summary**

We are eager to continue work on this project and look forward to bringing the PS&E contract documents to closure. If you have any questions, please feel free to contact me at (951)294-2499, or [mckinleycb@bv.com](mailto:mckinleycb@bv.com).

Very truly yours,

BLACK & VEATCH CORPORATION



Charlie McKinley, P.E.  
Project Manager

**EAST ORANGE COUNTY WATER DISTRICT  
OC-43 VAULT REPLACEMENT PROJECT**

**Amendment No. 2 Engineering Design & Construction Phase Services**

Task Description	Project Manager	QC Engineer	Engr. Manager	Struct. Engineer	I&C Engineer	Elec Engineer	Staff Engineer	Cost Estimator	CAD Tech	Clerical Staff	Total Hours	Total Labor	Expense	Total Fee	EOCWD	City of Tustin
Billing Rate =	\$270.00	\$220.00	\$180.00	\$180.00	\$150.00	\$165.00	\$125.00	\$205.00	\$130.00	\$90.00					69%	31%
<b>Task 1: Project Management</b>																
1.1 Project Management	4		16								20	\$3,960		\$3,960	\$3,366	\$594
<b>Task 2: 30% Design</b>																
2.1 Review Existing Information and Gather Field Data											0	\$0		\$0	\$0	\$0
2.2 Develop 30% Drawings											0	\$0		\$0	\$0	\$0
<b>Task 3: 90% Design</b>																
3.1 Develop 90% P&S - Revise Back to One Vault	2	2	24	8	24	24	40		40		164	\$24,500	\$200	\$24,700	\$20,995	\$3,705
3.2 Opinion of Probable Construction Cost - 30% Level											0	\$0		\$0	\$0	\$0
<b>Task 4: Final Design</b>																
4.1 Final Drawings and Specifications											0	\$0		\$0	\$0	\$0
4.2 Opinion of Probable Construction Cost			4			2	2	8			16	\$2,940		\$2,940	\$2,499	\$441
<b>Task 5: Traffic Control</b>															0	0
5.1 Coordinate Traffic Control Plans			4				16				20	\$2,720		\$2,720	\$2,312	\$408
<b>Task 6: Construction Phase Support</b>															0	0
6.1 Bid Phase Support	2		12				12			4	30	\$4,560	\$200	\$4,760	\$4,046	\$714
6.2 Shop Drawing & Submittal Reviews (25)			18				40				58	\$8,240		\$8,240	\$7,004	\$1,236
6.3 RFI's (5)			8				2				10	\$1,690		\$1,690	\$1,437	\$254
6.4 Change Orders			12				8				20	\$3,160		\$3,160	\$2,686	\$474
6.5 Site Visits (2)			8								8	\$1,440	\$200	\$1,640	\$1,394	\$246
6.6 Testing & Startup Support			4				4				8	\$1,220		\$1,220	\$1,037	\$183
6.7 Progress Meetings (3)			6				6				12	\$1,830	\$100	\$1,930	\$1,641	\$290
6.8 Record Drawings	2	1	2				4		8		17	\$2,660		\$2,660	\$2,261	\$399
<b>TOTAL</b>	<b>10</b>	<b>3</b>	<b>118</b>	<b>8</b>	<b>24</b>	<b>26</b>	<b>134</b>	<b>8</b>	<b>48</b>	<b>4</b>	<b>383</b>	<b>\$ 58,920</b>	<b>\$ 700</b>	<b>\$59,620</b>	<b>\$ 50,677</b>	<b>\$ 8,943</b>

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: ID1 CRA PROJECT #1 - CONSTRUCTION PACKAGE #1 – INCREASE CONTINGENCY, APPROVAL OF PROFESSIONAL SERVICES AGREEMENT (PSA) AMENDMENT #1 TO HDR ENGINEERING, AND APPROVAL OF PSA AMENDMENT #1 TO BUTIER ENGINEERING**  
**DATE: MARCH 10, 2022**

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## Background

At the December 2 Special Meeting, the Board awarded a construction contract to T.E. Roberts for the construction of the ID1 CRA Project #1 – Construction Package #1. Construction is in progress and is about 40 percent complete as shown on the attached. During the installation of the initial segment in December, additional costs were incurred on the project for double handling of soil due to rain and dump closures and for additional asphalt repair due to no road base and poor soil conditions beneath the road. The road base conditions that do not meet current standards, most likely due to the age of the road, are confined to certain areas and is an unforeseen condition because it was not discovered until after construction began. As construction has progressed, which has been slower than expected, this unforeseen condition has required additional asphalt repairs at various locations and additional geotechnical support. It should be noted the additional costs were not a function of delivery method.

Butier Engineering, the District's construction management firm, has done an excellent job of resolving these unforeseen issues but it has required more time and inspection than anticipated. Staff recommends raising the contingency from \$200,000 to \$500,000 to address the unanticipated field conditions, approval of PSA Amendment #1, in the amount of \$27,330 to HDR Engineering, and approval of PSA Amendment #1, in the amount of \$64,650, to Butier Engineering.

Staff expects construction to be completed in May.

## Financial Impact

Funds have been budgeted in Account #7302120 for the ID1 CRA Project.

## Recommendation

That the Committee recommend the Board authorize and approve the General Manager a \$500,000 contingency to address any unanticipated conditions for a total budget of \$5,051,284.25 for the construction of the ID1 CRA Project #1 – Construction Package #1; approve and authorize the General Manager to execute PSA Amendment #1, in the amount of \$27,330, to HDR Engineering; and approve and authorize the General Manager to execute PSA Amendment #1, in the amount of \$64,650, to Butier Engineering.

## Attachments:

Exhibit A - Location Map

EXHIBIT A  
CRA Project Location Map



**February 2022 - Sewer Connection & Wholesale Connection Permits**

Connection Address	Type of Development	Permit No	APN	Date Issued	Regional CFCC (OCSD) Fees	Local Capacity Chage Fees	Inspection Fees	Total Sewer	Wholesale Connection Meter Fees	Water District	Total
1472 Kenneth Dr., Tustin, 92780	ADU	20-47	105-341-23	2/4/2022	\$ -	\$ -	\$ -	\$ -	\$ 634.00	Tustin	\$ 634.00
230 S. B St. Tustin, CA 92780	ADU	21-110	401-562-05	2/10/2022	\$ 2,083.85	\$ 1,879.65	\$ 800.00	\$ 4,763.50	\$ 1,586.00	Tustin	\$ 6,349.50
14011 Woodlawn Ave. Tustin, CA 92780	ADU	21-114	432-052-13	2/11/2022	\$ 1,659.96	\$ 1,339.93	\$ 800.00	\$ 3,799.89	\$ 1,586.00	Tustin	\$ 5,385.89
1091 Old Irvine Blvd. Tustin, CA 92780	Commercial	21-126	501-081-06	2/14/2022	\$ 1,930.22	\$ -	\$ -	\$ 1,930.22	\$ -	Tustin	\$ 1,930.22
18282 E. Santa Clara Ave. Tustin, CA 92780	ADU	22-001	395-366-03	2/14/2022	\$ 1,087.85	\$ 414.55	\$ -	\$ 1,502.40	\$ -	Tustin	\$ 1,502.40
14532 Acacia Dr. Tustin, CA 92780	SFR	22-004	401-493-03	2/9/2022	\$ 1,118.00	\$ -	\$ -	\$ 1,118.00	\$ -	Tustin	\$ 1,118.00
1962 McClean Dr. Santa Ana, CA 92705	SFR; ADU	22-006	501-051-13	2/3/2022	\$ -	\$ -	\$ -	\$ -	\$ -	Tustin	\$ -
10282 Deerhill Dr. Santa Ana, CA 92705	SFR	22-009	503-111-08	2/9/2022	\$ 6,362.00	\$ 2,469.00	\$ -	\$ 8,831.00	\$ -	GSWC	\$ 8,831.00
14171 Brenan Way, Santa Ana, CA 92705	ADU	22-010	401-062-12	2/14/2022	\$ -	\$ -	\$ -	\$ -	\$ -	Tustin	\$ -
14052 Stratton Way, Santa Ana, CA 92705	ADU	22-012	401-072-07	2/15/2022	\$ -	\$ -	\$ -	\$ -	\$ -	Tustin	\$ -
13712 Winthrope, Santa Ana, CA 92705	SFR	22-016	395-451-15	2/17/2022	\$ 1,016.00	\$ -	\$ -	\$ 1,016.00	\$ -	Tustin	\$ 1,016.00
<b>Totals</b>					<b>\$ 15,257.88</b>	<b>\$ 6,103.13</b>	<b>\$ 1,600.00</b>	<b>\$ 22,961.01</b>	<b>\$ 3,806.00</b>		<b>\$ 26,767.01</b>

**February 2022 - In the Pipeline**

Connection Address	Type of Development	Permit No	APN	Water District	Permit Status
9922 Newport Blvd, Santa Ana, 92705	New Construction - 16 SFRs	21-56 to 21-71	VTM No. 18062	GSWC	Pending permit issuance
9801 Brier Lane, Santa Ana, 92705	New Construction - 5 SFRs	21-72 to 21-75	503-321-01, 503-321-02	GSWC	Pending permit issuance
9751 Brier Lane, Santa Ana, 92705	Septic Conversion	21-77	503-321-16	GSWC	Pending plans
9761 Brier Lane, Santa Ana, 92705	Septic Conversion	21-78	503-321-14	GSWC	Pending plans
13391 Coral Reef Rd. Tustin, CA 92780	ADU	21-83	103-594-06	Tustin	Pending customer response
1941 El Camino Real, Tustin, CA 92780	MFR	21-99	500-712-12	Tustin	Pending submittal
18874 Fowler Ave. Santa Ana, CA 92705	ADU	21-116	393-301-17	EOCWD	Pending customer response
685 W. Main St. Tustin, CA 92780	ADU	21-120	401-552-11	Tusitn	Pending revised plans
17802 Irvine Blvd. Tustin, CA 92780	Commercial	21-124	401-414-13	Tustin	Pending plans
14352 Holt Ave. Tustin, CA 92780	ADU	21-125	401-122-12	Tustin	Pending customer response
S. Crawford Canyon Rd. & Newport Ave.	Park	N/A	503-382-04	EOCWD	Pending revised plans
310 S. Myrtle Ave. Tustin, CA 92780	ADU	22-007	501-081-06	Tustin	Pending revised plans
1100 E. Valencia Dr. and 1101 Bell Ave. Tustin, CA 92780	Commerical	22-018	430-241-07	Tustin	Pending revised plans
17245 Seventeenth St. Tustin, CA 92780	Commerical	22-020	395-142-08	Tustin	Pending customer payment and signature

# East Orange County Retail Zone Water Usage Report

5B

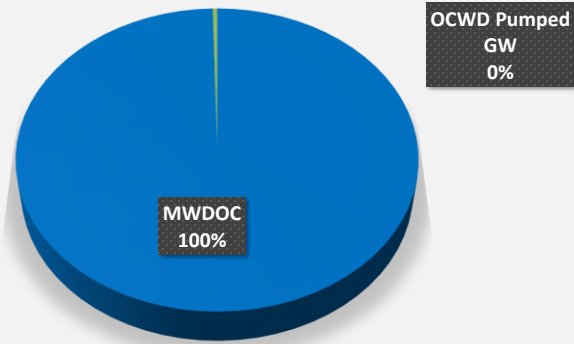
## East Orange County Retail Zone Overview of Usage FY 2021-22 Monthly Water Use

Type of Supply	July	August	September	October	November	December	January	February	March	April	May	June	Total
MWDOC	100	102	89	76	73	48	55	62	-	-	-	-	606
OCWD Pumped GW	0.2	0.3	0.3	0.3	0.3	-	0.3	0.6	-	-	-	-	2
<b>Total</b>	<b>100</b>	<b>103</b>	<b>89</b>	<b>76</b>	<b>73</b>	<b>48</b>	<b>56</b>	<b>63</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>608</b>

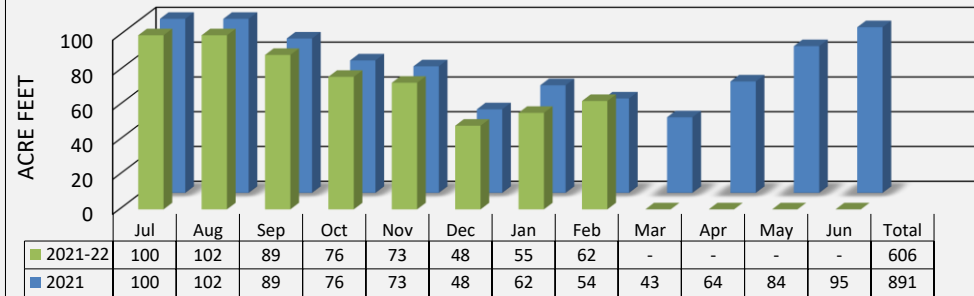
  

2021 MWDOC Usage	July	August	September	October	November	December	January	February	March	April	May	June	Total
	100	102	89	76	73	48	62	54	43	64	84	95	891

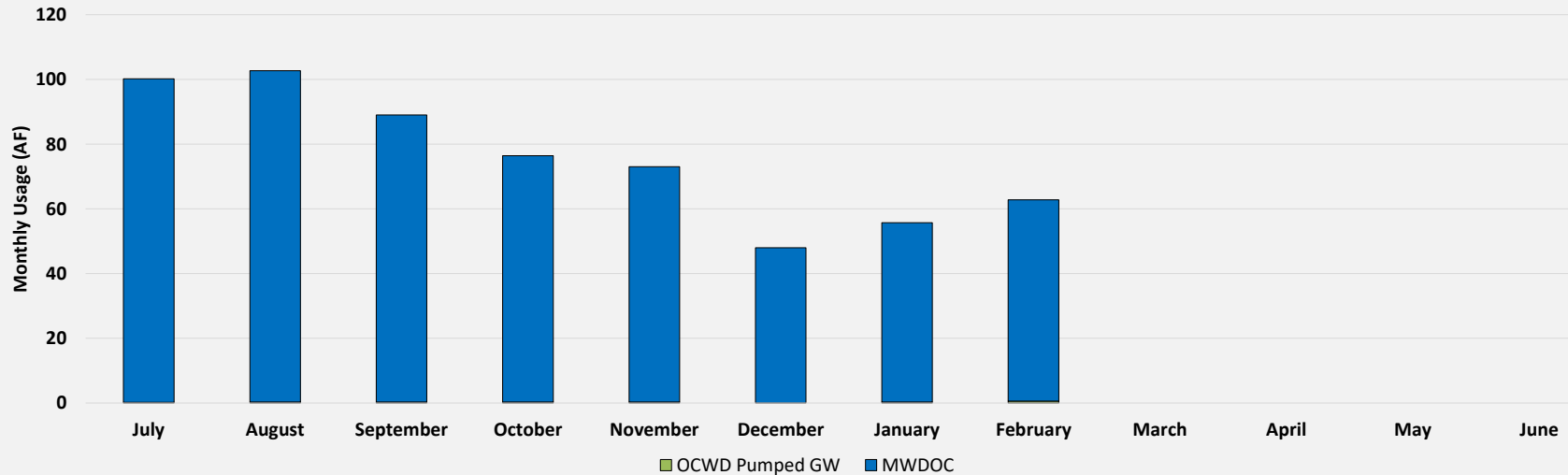
2021-22 Sources of Water



MWDOC Calendar Year and Fiscal Year Purchases



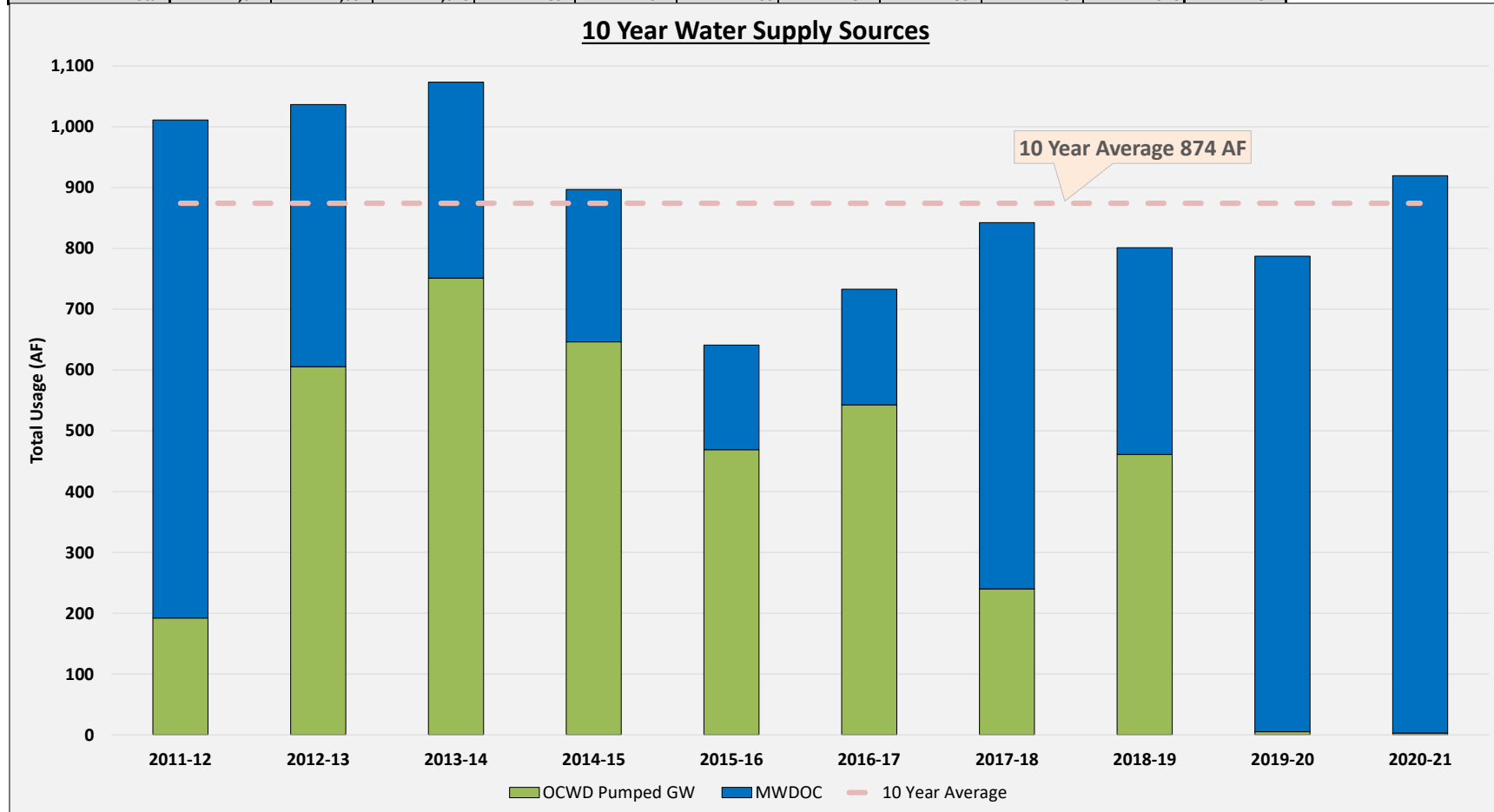
2021-22 Monthly Water Supply Sources



# East Orange County Retail Zone Water Usage Report

## Annual Water Usage

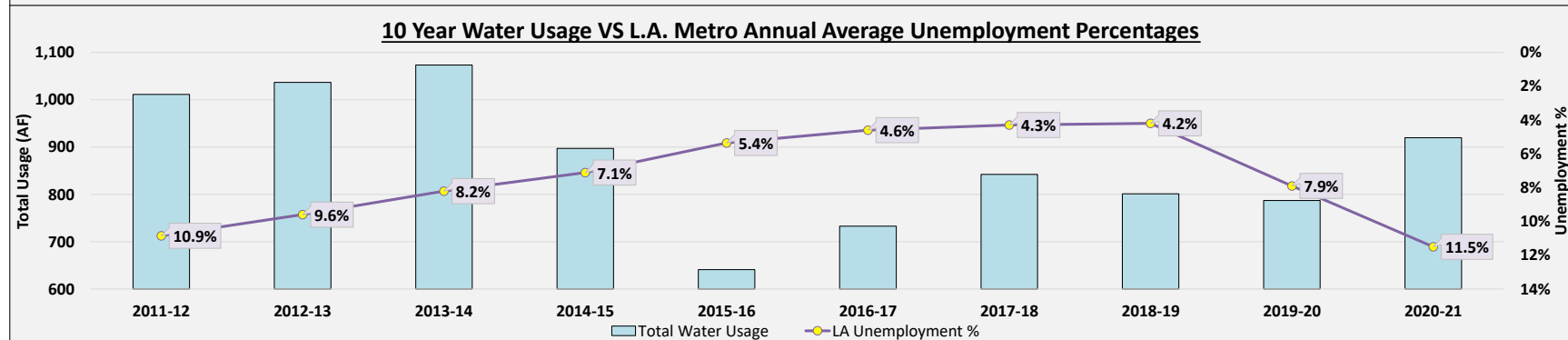
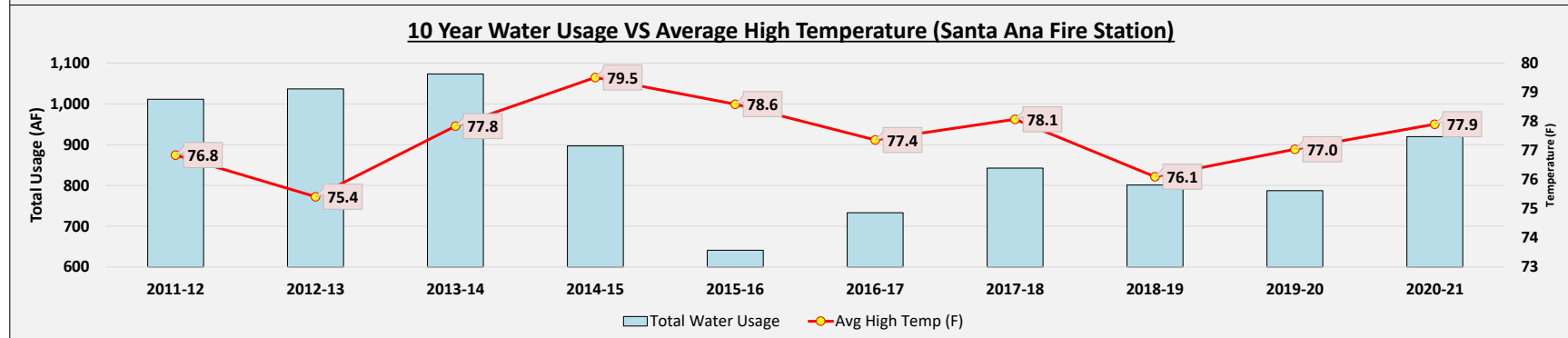
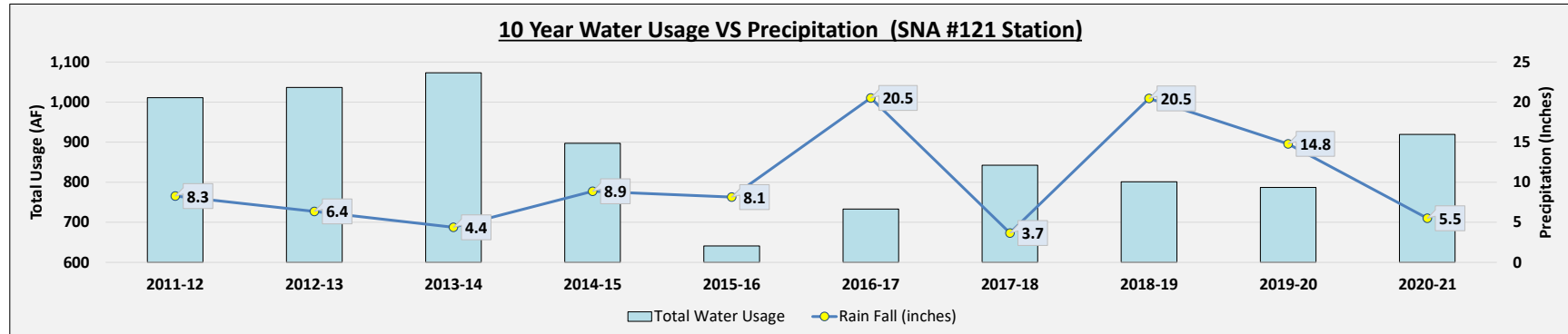
Type of Supply	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Average
MWDOC	819.1	431.3	322.0	250.7	172.1	190.2	602.1	340.0	781.8	916.4	482.6
OCWD Pumped GW	192.1	605.2	751.3	646.3	468.9	542.7	240.2	461.0	5.2	3.1	391.6
<b>Total</b>	<b>1,011</b>	<b>1,037</b>	<b>1,073</b>	<b>897</b>	<b>641</b>	<b>733</b>	<b>842</b>	<b>801</b>	<b>787</b>	<b>920</b>	<b>874</b>



# East Orange County Retail Zone Water Usage Report

## Water Usage Variables

Type of Supply	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Average
Rain Fall (inches)	8.3	6.4	4.4	8.9	8.1	20.5	3.7	20.5	14.8	5.5	10.1
Avg High Temp (F)	76.8	75.4	77.8	79.5	78.6	77.4	78.1	76.1	77.0	77.9	77.5
LA Unemployment %	10.9%	9.6%	8.2%	7.1%	5.4%	4.6%	4.3%	4.2%	7.9%	11.5%	7.4%
<b>Total Water Usage</b>	<b>1,011</b>	<b>1,037</b>	<b>1,073</b>	<b>897</b>	<b>641</b>	<b>733</b>	<b>842</b>	<b>801</b>	<b>787</b>	<b>920</b>	<b>874</b>



# East Orange County Retail Zone Water Usage Report

## East Orange County Retail Zone Detailed Usage Historical Monthly Potable Usage (Fiscal Year, July-June)

Fiscal Year	July	August	September	October	November	December	January	February	March	April	May	June	Total
2015-16 Usage	54	69	60	46	61	45	29	46	64	35	63	69	641
2016-17 Usage	82	87	70	68	58	44	37	32	43	70	70	79	738
2017-18 Usage	87	98	77	81	60	70	53	49	45	67	71	84	842
2018-19 Usage	107	99	85	73	62	40	47	29	43	61	59	77	781
2019-20 Usage	82	87	86	83	68	46	47	56	38	52	67	76	787
2020-21 Usage	90	99	93	91	75	68	62	54	44	64	85	95	920
<b>Average of Last 6 FYs</b>	<b>83</b>	<b>90</b>	<b>78</b>	<b>74</b>	<b>64</b>	<b>52</b>	<b>46</b>	<b>44</b>	<b>46</b>	<b>58</b>	<b>69</b>	<b>80</b>	<b>785</b>
Monthly Usage Percentage	11%	11%	10%	9%	8%	7%	6%	6%	6%	7%	9%	10%	100%

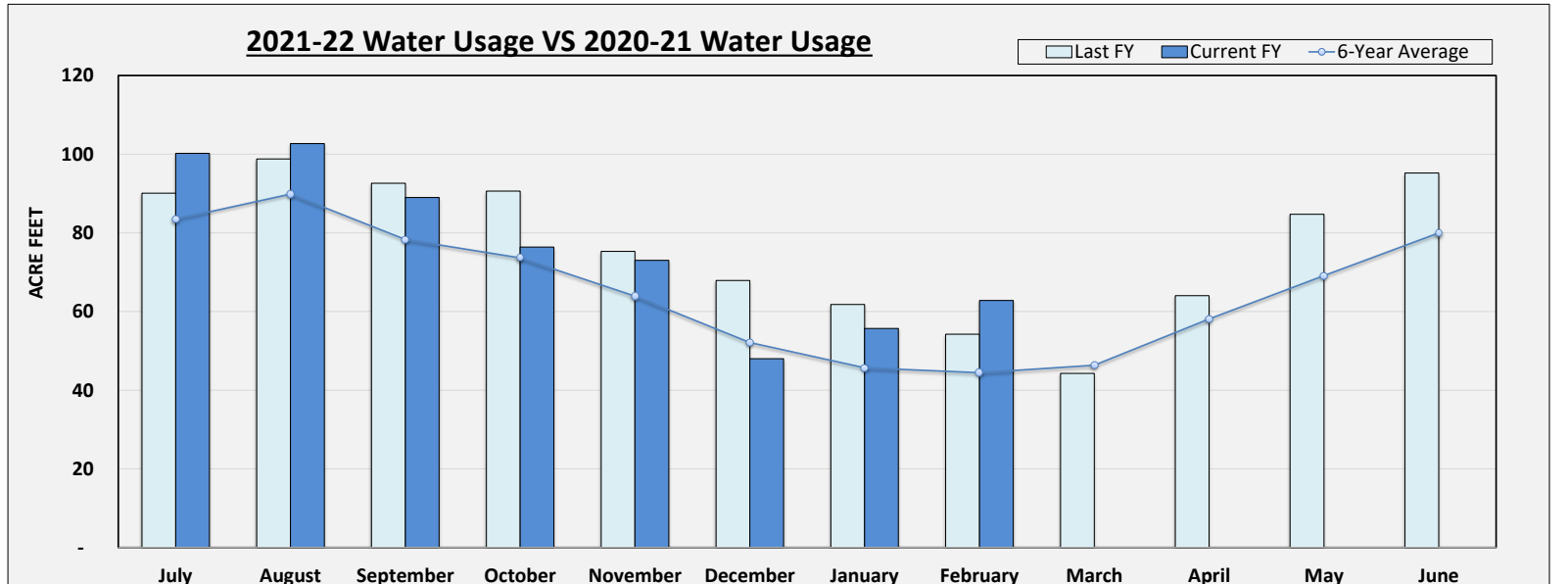
### Water Usage By Source

Imported	July	August	September	October	November	December	January	February	March	April	May	June	Total
MWD via EO Wholesale	100.0	102.4	88.7	76.1	72.7	48.0	55.4	62.2					605.5
Water from IRWD during OC-70 shutd	-	-	-	-	-	-	-	-					-
CPTP	-	-	-	-	-	-	-	-					-
MWD In-Lieu*	-	-	-	-	-	-	-	-					-
<b>Imported Total</b>	<b>100</b>	<b>102</b>	<b>89</b>	<b>76</b>	<b>73</b>	<b>48</b>	<b>55</b>	<b>62</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>605.5</b>

\*In-lieu totals are subtracted from imported totals

Local	July	August	September	October	November	December	January	February	March	April	May	June	Total
OCWD Pumped GW	0.2	0.3	0.3	0.3	0.3	-	0.3	0.6					2.3
Less Fill up Reservoir	-	-	-	-	-	-	-	-					-
Less CPTP	-	-	-	-	-	-	-	-					-
<b>Local Total (minus reservoir)</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>-</b>	<b>0.3</b>	<b>0.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.3</b>

<b>Total Usage 2021-22 (minus reservoir)</b>	<b>100</b>	<b>103</b>	<b>89</b>	<b>76</b>	<b>73</b>	<b>48</b>	<b>56</b>	<b>63</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>608</b>
FY 20-21 versus FY 21-22	+11%	+4%	-4%	-16%	-3%	-29%	-10%	+16%					

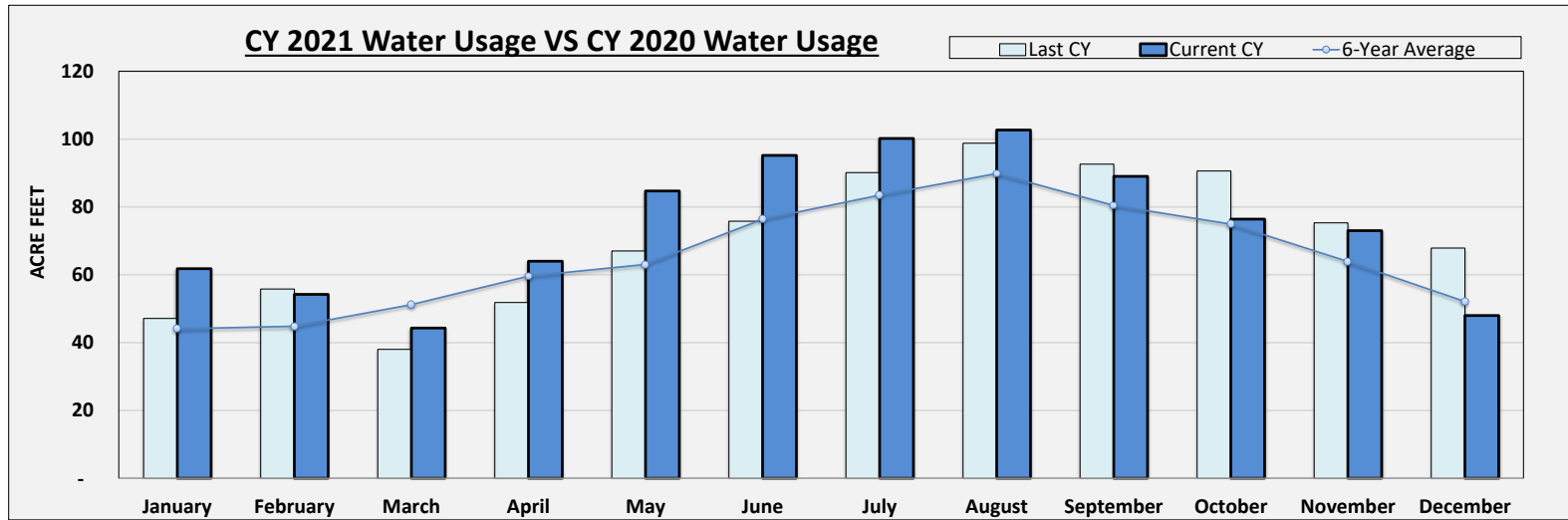


# East Orange County Retail Zone Water Usage Report

## Historical Monthly Potable Usage (Calendar Year)

Calendar Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
2015	59	53	72	73	52	74	54	69	60	46	61	45	718
2016	29	46	64	35	63	69	82	87	70	68	58	44	713
2017	31	32	43	70	70	79	87	98	77	81	60	70	798
2018	53	49	45	67	71	84	107	99	97	81	62	40	855
2019	45	33	45	61	55	77	82	87	86	83	68	46	767
2020	47	56	38	52	67	76	90	99	93	91	75	68	851
<b>6 year Average</b>	<b>44</b>	<b>45</b>	<b>51</b>	<b>60</b>	<b>63</b>	<b>76</b>	<b>83</b>	<b>90</b>	<b>80</b>	<b>75</b>	<b>64</b>	<b>52</b>	<b>784</b>

Total Water Usage 2021	62	54	44	64	85	95	100	103	89	76	73	48	894
2021 VS 2020 Usage	+31%	-3%	+17%	+24%	+26%	+26%	+11%	+4%	-4%	-16%	-3%	-29%	



	Population	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2020 Usage (AF)	3,210	47	56	38	52	67	76	90	99	93	91	75	68	851
2020 GPCD		154	202	124	175	219	256	295	324	313	297	255	222	237
2021 Usage (AF)		62	54	44	64	85	95	100	102	89	76	73	48	892
2021 GPCD		3,222	202	196	144	216	276	321	326	334	299	248	245	157
CY over CY change in GPCD		+47	-6	+20	+40	+57	+64	+31	+11	-14	-48	-10	-66	+11

	Population	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
2020-21 Usage (AF)	3,210	90	99	93	91	75	68	62	54	44	64	85	95	920
2020-21 GPCD		295	324	313	297	255	222	202	197	145	217	277	322	256
2021-22 Usage (AF)	3,222	100	102	89	76	73	48	55	62	-	-	-	-	606
2021-22 GPCD		326	334	299	248	245	157	181	225	-	-	-	-	252
FY over FY change in GPCD		+31	+11	-14	-48	-10	-66	-22	+28					-4

\*Cumulative through the end of the last month shown

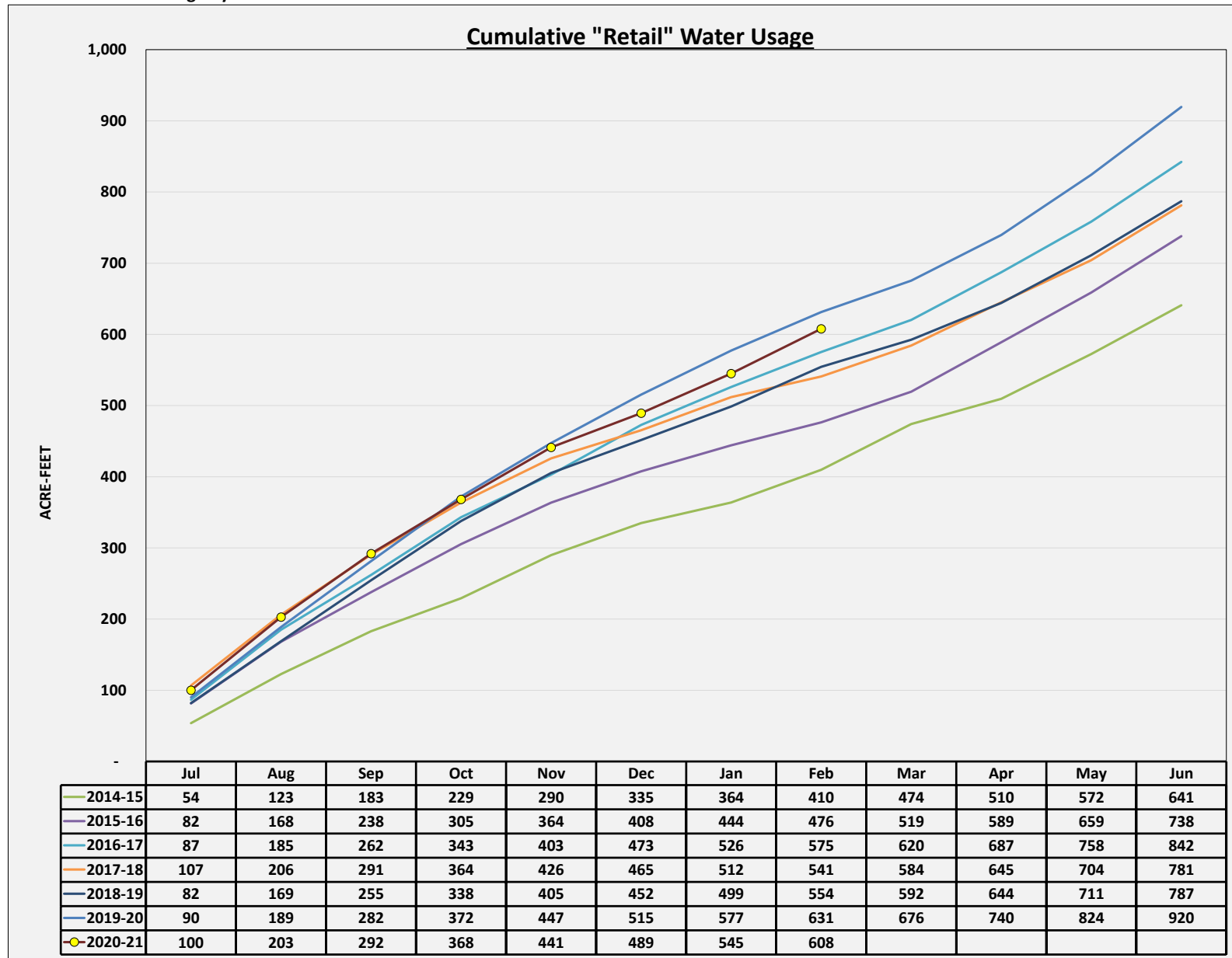
\*GPCD = (Total Monthly Production - Fill up Reservoir) / Population/days in the month

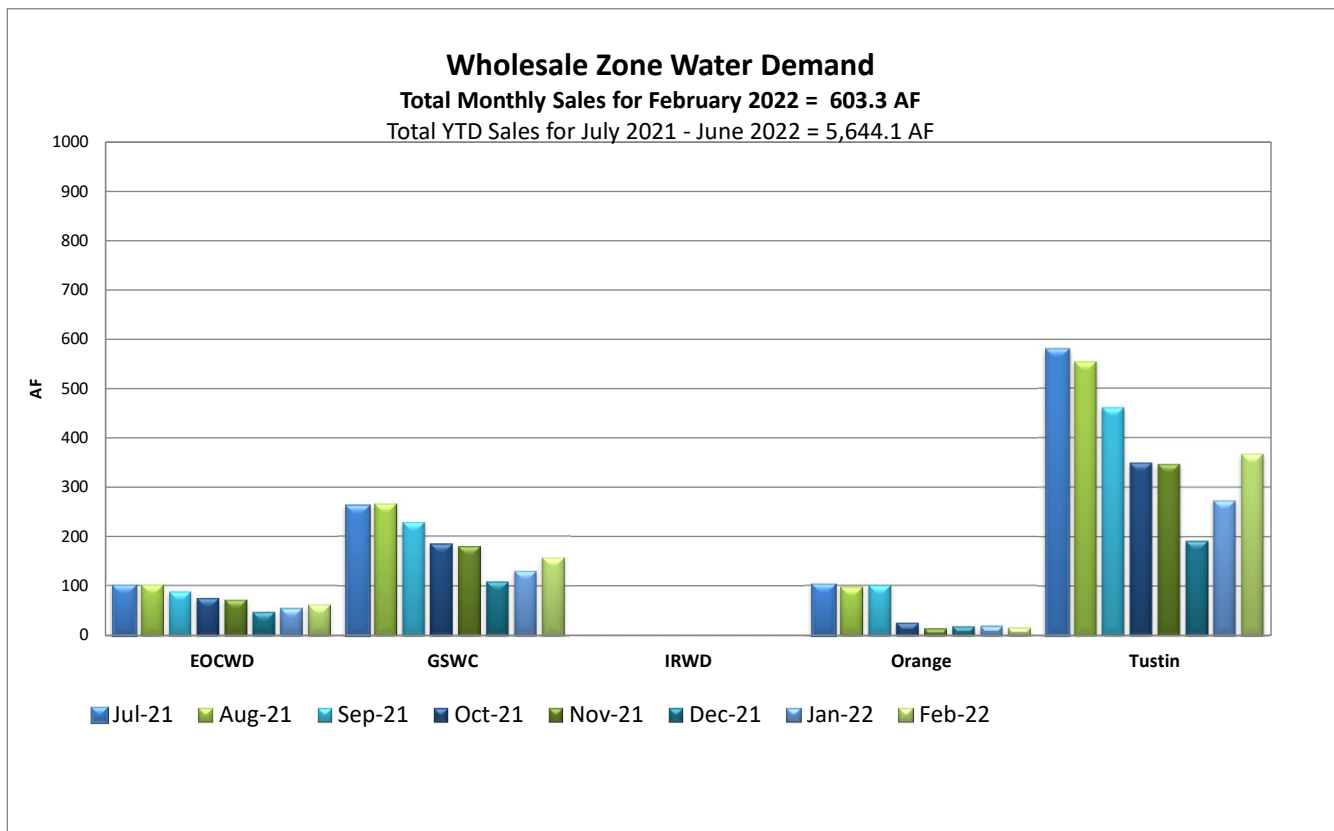
\*For the months of July 2021 through February 2022, groundwater usage was not delivered to customers and is not counted towards GPCD



# East Orange County Retail Zone Water Usage Report

Cumulative Water Usage by Fiscal Year





**EOCWD IMPORTED WATER DELIVERY BALANCE - FY21/22**

(Acre-feet)

	OC-43	OC-48				OC-70						TOTAL DELIVERIES BY AGENCY					
	MWD Tustin	Retail Zone	Golden State	Tustin	MWD Total	IRWD Jamboree	Orange	Retail Zone	Golden State	Tustin	MWD Total	IRWD OPA	Orange	Retail Zone	Golden State	Tustin	
JUL	357.4	0.0	22.0	218.5	240.5	0.0	101.6	100.0	238.7	1.8	442.1	0.0	101.6	100.0	260.7	577.7	
AUG	315.3	0.0	21.7	237.3	259.0	0.0	97.8	102.4	244.3	1.7	446.3	0.0	97.8	102.4	266.0	554.3	
SEP	258.6	0.0	16.1	196.1	212.2	0.0	101.1	88.7	212.9	6.7	409.4	0.0	101.1	88.7	229.0	461.4	
OCT	188.5	0.0	13.9	145.7	159.6	0.0	26.3	76.1	171.4	15.6	289.4	0.0	26.3	76.1	185.3	349.8	
NOV	194.4	0.0	15.0	147.9	162.9	0.0	15.1	72.7	165.3	4.7	257.8	0.0	15.1	72.7	180.3	347.0	
DEC	98.6	0.0	8.8	92.2	101.0	0.0	19.1	48.0	100.9	1.0	169.0	0.0	19.1	48.0	109.7	191.8	
JAN	140.1	0.0	10.3	128.7	139.0	0.0	19.8	55.4	120.5	4.3	200.0	0.0	19.8	55.4	130.8	273.1	
FEB	195.0	0.0	13.1	169.9	183.0	0.0	16.2	62.2	144.7	2.2	225.3	0.0	16.2	62.2	157.8	367.1	
MAR												0.0	0.0	0.0	0.0	0.0	
APR												0.0	0.0	0.0	0.0	0.0	
MAY												0.0	0.0	0.0	0.0	0.0	
JUN												0.0	0.0	0.0	0.0	0.0	
<b>Total</b>	<b>1747.9</b>	<b>0.0</b>	<b>120.9</b>	<b>1336.3</b>	<b>1457.2</b>	<b>0.0</b>	<b>397.0</b>	<b>605.5</b>	<b>1398.7</b>	<b>38.0</b>	<b>2439.3</b>	<b>0.0</b>	<b>397.0</b>	<b>605.5</b>	<b>1519.6</b>	<b>3122.2</b>	