

MEETING OF THE BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Jointly with the
ADMINISTRATION & FINANCE COMMITTEE
October 12, 2022, 8:30 a.m.

Due to the current state of emergency related to the spread of COVID-19 and pursuant to Government Code Section 54953(e), MWDOC will be holding this Board and Committee meeting by Zoom Webinar and will be available by either computer or telephone audio as follows:

Computer Audio: You can join the Zoom meeting by clicking on the following link:

<https://zoom.us/j/8828665300>

Telephone Audio: (669) 900 9128 fees may apply
(877) 853 5247 Toll-free

Webinar ID: 882 866 5300#

A&F Committee:

Director Seckel, Chair
Director Thomas
Director Dick

Staff: R. Hunter, J. Berg, H. Chumpitazi,
H. De La Torre, K. Davanaugh, C. Harris

Ex Officio Member: Director Yoo Schneider

MWDOC Committee meetings are noticed and held as joint meetings of the Committee and the entire Board of Directors and all members of the Board of Directors may attend and participate in the discussion. Each Committee has designated Committee members, and other members of the Board are designated alternate committee members. If less than a quorum of the full Board is in attendance, the Board meeting will be adjourned for lack of a quorum and the meeting will proceed as a meeting of the Committee with those Committee members and alternate members in attendance acting as the Committee.

ROLL CALL

PUBLIC COMMENTS - Public comments on agenda items and items under the jurisdiction of the Committee should be made at this time.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED - Determine there is a 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 a unanimous vote of the Committee)

ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING -- Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 18700 Ward Street, Fountain Valley, California 92708, during regular business hours. When practical, these public records will also be made available on the District's Internet Web site, accessible at <http://www.mwdoc.com>.

PROPOSED BOARD CONSENT CALENDAR ITEMS

1. TREASURER'S REPORT
 - a. Revenue/Cash Receipt Report – September 2022
 - b. Disbursement Approval Report for the month of October 2022

- c. Disbursement Ratification Report for the month of September 2022
 - d. GM Approved Disbursement Report for the month of September 2022
 - e. Consolidated Summary of Cash and Investment – August 2022
 - f. OPEB and Pension Trust Fund statements
2. FINANCIAL REPORT
- a. Combined Financial Statements and Budget Comparative for the Period Ending August 31, 2022

DISCUSSION ITEM

3. COVID-19 AND MEETING FORMAT (Oral Report)

INFORMATION ITEMS – (THE FOLLOWING ITEMS ARE FOR INFORMATIONAL PURPOSES ONLY – BACKGROUND INFORMATION IS INCLUDED IN THE PACKET. DISCUSSION IS NOT NECESSARY UNLESS REQUESTED BY A DIRECTOR.)

- 4. INDIVIDUAL CHARGES DISCLOSURE REPORT
- 5. CALPERS ANNUAL VALUATION REPORT AS OF JUNE 30, 2021
- 6. OPEB ACTUARIAL REPORT AS OF JULY 1, 2022
- 7. UPDATE REGARDING MEMBER AGENCY FACILITATED DISCUSSIONS
- 8. UPDATE REGARDING RESERVE FUND DISCUSSIONS
- 9. DEPARTMENT ACTIVITIES REPORTS
 - a. Administration
 - b. Finance and Information Technology
- 10. MONTHLY WATER USAGE DATA, TIER 2 PROJECTION, AND WATER SUPPLY INFORMATION

OTHER ITEMS

11. REVIEW ISSUES REGARDING DISTRICT ORGANIZATION, PERSONNEL MATTERS, EMPLOYEE BENEFITS FINANCE AND INSURANCE

ADJOURNMENT

NOTE: At the discretion of the Committee, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated, and may be subject to action by the Committee. On those items designated for Board action, the Committee reviews the items and makes a recommendation for final action to the full Board of Directors; final action will be taken by the Board of Directors. Agendas for Committee and Board meetings may be obtained from the District Secretary. Members of the public are advised that the Board consideration process includes consideration of each agenda item by one or more Committees indicated on the Board Action Sheet. Attendance at Committee meetings and the Board meeting considering an item consequently is advised.

Accommodations for the Disabled. Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Maribeth Goldsby, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.

**Municipal Water District of Orange County
REVENUE / CASH RECEIPT REPORT
September 2022**

WATER REVENUES

<u>Date</u>	<u>From</u>	<u>Description</u>	<u>Amount</u>
9/01/2022	City of La Habra	July 2022 Water deliveries	74,714.12
9/01/2022	Laguna Beach County Water District	July 2022 Water deliveries	389,546.26
9/02/2022	City of San Clemente	July 2022 Water deliveries	852,084.08
9/06/2022	City of Buena Park	July 2022 Water deliveries	291,833.50
9/06/2022	City of La Palma	July 2022 Water deliveries	3,569.22
9/06/2022	City of Seal Beach	July 2022 Water deliveries	330,880.59
9/06/2022	South Coast Water District	July 2022 Water deliveries	573,302.14
9/12/2022	Santa Margarita Water District	July 2022 Water deliveries	2,786,582.61
9/12/2022	Santa Margarita Water District (ID9)	July 2022 Water deliveries	762,466.06
9/13/2022	City of Garden Grove	July 2022 Water deliveries	1,040,357.86
9/13/2022	East Orange Co Water District	July 2022 Water deliveries	1,024,099.60
9/14/2022	City of Orange	July 2022 Water deliveries	1,259,031.35
9/14/2022	El Toro Water District	July 2022 Water deliveries	724,564.43
9/15/2022	Golden State Water Company	July 2022 Water deliveries	711,181.57
9/15/2022	Irvine Ranch Water District	July 2022 Water deliveries	2,649,425.88
9/15/2022	Moulton Niguel Water District	July 2022 Water deliveries	2,622,535.60
9/15/2022	Orange County Water District	July 2022 Water deliveries	373,119.19
9/15/2022	Yorba Linda Water District	July 2022 Water deliveries	486,972.45
9/26/2022	City of Fountain Valley	August 2022 Water deliveries	7,715.58
9/26/2022	City of La Habra	August 2022 Water deliveries	146,608.83
9/26/2022	City of Newport Beach	August 2022 Water deliveries	142,133.93
9/26/2022	South Coast Water District	August 2022 Water deliveries	610,843.73
9/30/2022	City of Huntington Beach	August 2022 Water deliveries	1,278,797.80

TOTAL WATER REVENUES \$ 19,142,366.38

**Municipal Water District of Orange County
REVENUE / CASH RECEIPT REPORT
September 2022**

MISCELLANEOUS REVENUES

<u>Date</u>	<u>From</u>	<u>Description</u>	<u>Amount</u>
9/01/2022	Aleshire & Wynder LLP	9/16/2022 OC Water Summit sponsorship	1,600.00
9/06/2022	Santa Margarita Water District	9/16/2022 OC Water Summit sponsorship	1,600.00
9/06/2022	WePay	9/16/2022 OC Water Summit registrations	23,872.48
9/12/2022	El Toro Water District	9/16/2022 OC Water Summit sponsorship	900.00
9/12/2022	Disney Worldwide Services	9/16/2022 OC Water Summit sponsorship	1,600.00
9/12/2022	Riverside Unified School District	9/16/2022 OC Water Summit registration	280.00
9/15/2022	Rebuild Social	9/16/2022 OC Water Summit sponsorship	2,000.00
9/19/2022	Square	9/16/2022 OC Water Summit registration	136.26
9/26/2022	South OC Community College District	9/16/2022 OC Water Summit registration	140.00
9/12/2022	Western Municipal Water District	WEEA Sponsorship FY 2022-23	2,500.00
9/06/2022	Orange County Water District	WEROC Emergency supplies for COVID-19	588.00
9/26/2022	Igoe and Company Inc	Net Refund for FSA	5.00
9/16/2022	Igoe and Company Inc	COBRA and Retiree Vision insurance	23.66
9/14/2022	Stan Sprague	October 2022 Retiree Health insurance	179.55
9/07/2022	Karl Seckel	September 2022 Retiree Health insurance	179.55
9/23/2022	US Bank Custodial Account	Citigroup Interest payment	1,250.09
9/28/2022	US Bank Custodial Account	Barclays Bank interest payment	2,695.21
9/01/2022	East Orange Co Water District	FY 2022-23 Choice Programs Billing invoice	8,550.38
9/02/2022	City of Brea	FY 2022-23 Choice Programs Billing invoice	11,374.53
9/06/2022	City of Seal Beach	FY 2022-23 Choice Programs Billing invoice	7,100.59
9/06/2022	Irvine Ranch Water District	FY 2022-23 Choice Programs Billing invoice	143,726.73
9/06/2022	Mesa Water District	FY 2022-23 Choice Programs Billing invoice	29,479.48
9/06/2022	Santa Margarita Water District	FY 2022-23 Choice Programs Billing invoice	138,751.57
9/07/2022	City of Fountain Valley	FY 2022-23 Choice Programs Billing invoice	40,004.13
9/08/2022	City of Westminster	FY 2022-23 Choice Programs Billing invoice	14,699.16
9/09/2022	City of Tustin	FY 2022-23 Choice Programs Billing invoice	36,496.64
9/12/2022	City of Garden Grove	FY 2022-23 Choice Programs Billing invoice	24,776.48
9/12/2022	City of Orange	FY 2022-23 Choice Programs Billing invoice	26,380.80
9/14/2022	City of La Habra	FY 2022-23 Choice Programs Billing invoice	14,117.45
9/16/2022	City of Huntington Beach	FY 2022-23 Choice Programs Billing invoice	57,693.84
9/16/2022	Trabuco Canyon Water District	FY 2022-23 Choice Programs Billing invoice	6,296.64
9/19/2022	City of La Palma	FY 2022-23 Choice Programs Billing invoice	3,850.87
9/19/2022	Yorba Linda Water District	FY 2022-23 Choice Programs Billing invoice	40,408.19
9/26/2022	Moulton Niguel Water District	FY 2022-23 Choice Programs Billing invoice	221,671.94
9/26/2022	South Coast Water District	FY 2022-23 Choice Programs Billing invoice	14,315.72
9/30/2022	City of San Clemente	FY 2022-23 Choice Programs Billing invoice	55,725.20
9/26/2022	El Toro Water District	June 2022 Smartimer and Turf Removal rebate program	356.00
9/26/2022	Moulton Niguel Water District	July 2022 Turf Removal rebate program	14,176.77
9/09/2022	2 Checks	July 2022 Turf Removal and Spray to Drip rebate program	1,221.00
9/14/2022	City of Fountain Valley	July 2022 Turf Removal and Spray to Drip rebate program	777.00
9/15/2022	City of Westminster	July 2022 Turf Removal and Spray to Drip rebate program	888.00
9/19/2022	City of Orange	July 2022 Turf Removal and Spray to Drip rebate program	888.00
9/23/2022	City of San Clemente	July 2022 Turf Removal and Spray to Drip rebate program	666.00
9/26/2022	El Toro Water District	June 2022 So Cal Watersmart rebate program	230.00
9/12/2022	Department of Water Resources	Jan-Mar 2022 Prop 1 grant	12,659.25
9/02/2022	City of Brea	Water Loss Control Shared Services FY 2022-23	33,120.00
9/06/2022	City of Newport Beach	Water Loss Control Shared Services FY 2022-23	4,320.00
9/06/2022	City of Orange	Water Loss Control Technical Assistance CY 2022 - E Source	23,680.00
9/09/2022	City of Fullerton	Water Loss Control Technical Assistance CY 2022 - E Source	10,120.00
9/09/2022	City of Huntington Beach	Water Loss Control Technical Assistance CY 2022 - E Source	10,120.00
9/14/2022	City of La Habra	Water Loss Control Technical Assistance CY 2022 - E Source	5,620.00
9/14/2022	City of Newport Beach	Water Loss Control Technical Assistance CY 2022 - E Source	10,120.00

TOTAL MISCELLANEOUS REVENUES \$ 1,063,932.16
TOTAL REVENUES \$ 20,206,298.54


Robert J. Hupfer, General Manager


Hilary Chumpitazi, Treasurer

**Municipal Water District of Orange County
Disbursement Approval Report
For the month of October 2022**

Vendor/ Invoice	Description	Amount to Pay
Core Disbursements:		
ACCO Engineered Systems Inc		
20302619	9/1/22-11/30/22 HVAC Preventative Maintenance	1,014.00
Total		<u>1,014.00</u>
Ackerman Consulting-Richard C Ackerman		
1348	September 2022 Legal and regulatory specialized consulting services	3,500.00
Total		<u>3,500.00</u>
Aleshire & Wynder LLP		
70450	August 2022 Legal Services	37.50
70877	September 2022 Legal Services	881.50
Total		<u>919.00</u>
Alta FoodCraft		
12243910	9/13/22 Coffee and tea supplies	110.28
12247183	10/1/22 Coffee supplies	125.00
Total		<u>235.28</u>
Bang Creative Inc		
INV16014.4	June 2022 Services for MWDOC Hallway Displays	561.00
Total		<u>561.00</u>
Best Best and Krieger LLP		
55401-AUG22	August 2022 Legal services	11,130.00
945120	August 2022 State Advocacy Agreement services	8,000.00
Total		<u>19,130.00</u>
Black & Veatch		
1380504	August 2022 Hydraulic Model Work with SCWD	2,867.50
Total		<u>2,867.50</u>
Bryton Printing Inc		
16742	9/16/22 OC Water Summit Signage	942.81
Total		<u>942.81</u>
CDM Smith		
90161769	September 2022 Services for water resource planning	7,146.50
Total		<u>7,146.50</u>
Dell Marketing LP		
1061338826	Spare Hard Drive for Hyper-V Host	651.56
Total		<u>651.56</u>

**Municipal Water District of Orange County
Disbursement Approval Report
For the month of October 2022**

Vendor/ Invoice	Description	Amount to Pay
Demsey Filliger & Associates LLC		
202210041041	GASB 75 Actuarial Valuation report for retiree health insurance program as of July 1, 2022	3,000.00
202210041042	GASB 75 Supplemental Schedule reports for retiree health insurance program as of June 30, 2022	750.00
Total		<u>3,750.00</u>
Dopudja & Wells Consulting Inc		
1153	August 2022 Consulting services on MET Strategic Issues and Priorities	3,687.50
1164	September 2022 Consulting services on MET Strategic Issues and Priorities	2,802.50
Total		<u>6,490.00</u>
E Source Companies LLC		
21571	August 2022 Technical Assistance Program services for Water Loss Control	1,120.00
21666	September 2022 Technical Assistance Program services for Water Loss Control	5,440.00
Total		<u>6,560.00</u>
Elevated Health		
Sept 2022	Pre-employment physical for new staff member	115.00
Total		<u>115.00</u>
GovConnection Inc		
73268611	Arcserve cloud storage annual renewal used for cloud backups	3,352.24
73305316	Adobe Pro DC and Adobe Creative Cloud licenses annual renewal	8,050.44
Total		<u>11,402.68</u>
Hashtag Pinpoint Corporation		
1635	September 2022 Social Media consultation and services	7,913.00
Total		<u>7,913.00</u>
Lawnscape Systems Inc		
429798	September 2022 Landscape Maintenance for Atrium	495.00
Total		<u>495.00</u>
Phil Letrong		
93022	July-September 2022 Retiree medical premium	510.30
Total		<u>510.30</u>
Keith Lyon		
93022	July-September 2022 Retiree medical premium	1,020.60
Total		<u>1,020.60</u>
Means Consulting LLC-Edward G Means III		
MWDOC-1106	September 2022 MET issues & strategic guidance to staff	1,125.00
Total		<u>1,125.00</u>

**Municipal Water District of Orange County
Disbursement Approval Report
For the month of October 2022**

Vendor/ Invoice	Description	Amount to Pay
Natural Resource Results LLC		
4053	September 2022 Federal legislative advocacy services	8,000.00
Total		8,000.00
NDS		
806138	9/9/22 Board packet delivery service	534.72
806197	9/16/22 Board packet delivery service	214.25
806314	9/30/22 Board packet delivery service	214.25
Total		963.22
ODP Business Solutions LLC		
264026469001	9/12/22 Office supplies	559.94
268929726001	9/28/22 Office supplies	134.59
		694.53
Office Solutions		
I-02040129	8/31/22 Office supplies	285.71
I-02048394	9/26/22 Chair mats for office	742.40
I-02048631	9/26/22 Office supplies	109.71
I-02048968	9/27/22 Office supplies	20.63
I-02049035	9/27/22 Office supplies	94.91
PCR-199573	Credit for return from Invoice I-02040129	(206.60)
I-02049438	9/28/22 Office supplies	104.94
PCR-199758	Credit for return from Invoice I-02048968	(15.58)
Total		1,136.12
Orange County Water District		
24657	August 2022 Postage, shared office & maintenance expense	14,233.24
Total		14,233.24
Paul Redvers Brown Inc		
DOC012	September 2022 MWDOC Facilitated Member Agency Discussions Project services	725.00
Total		725.00
PeopleSpace		
INV57278	Bookcase and Cabinets for MWDOC office remodel	3,286.82
INV63900	Conference room 101 Podium for MWDOC office remodel	3,740.98
DEPEST31652.1	50% Deposit for Ancillary furniture items for MWDOC office remodel	3,762.06
Total		10,789.86
PlanetBids Inc		
92215	Bid support services for Fiscal Year 2022-23	3,933.13
Total		3,933.13

**Municipal Water District of Orange County
Disbursement Approval Report
For the month of October 2022**

Vendor/ Invoice	Description	Amount to Pay
Soto Resources-Joey C Soto		
GA-SEP-66	September 2022 Grant Research and Acquisition Assistance	3,250.00
Total		<u>3,250.00</u>
SPS Data Communications		
92224	Data cables for conference rooms 101 and 103 and modified table devices for conference room 101	425.00
Total		<u>425.00</u>
Steven Enterprises Inc		
0456562-IN	High gloss 44" roll for plotter	217.57
Total		<u>217.57</u>
Water District Jobs		
1252209	Senior Engineer/Principal Engineer job posting	145.00
Total		<u>145.00</u>
Water System Consulting Inc		
7096	August 2022 Water Use Efficiency Economic Analysis	3,887.50
Total		<u>3,887.50</u>
Total Core Expenditures		<u>124,749.40</u>
Choice Expenditures:		
Building Block Entertainment Inc		
3522-3	September 2022 Choice Elementary School Program grades K-2	8,650.00
Total		<u>8,650.00</u>
Droplet Technologies		
1179	5,000 Pre-paid DocuSign Digital Signatures for Rebate Program	10,000.00
Total		<u>10,000.00</u>
Mission RCD		
3252	September 2022 Field inspection and verification for Water Use Efficiency rebate programs	1,840.00
Total		<u>1,840.00</u>
Office Solutions		
I-02048821	9/27/22 Supplies for Water Loss Control Shared Services field staff	38.95
I-02049273	9/28/22 Supplies for Water Loss Control Shared Services field staff	89.95
Total		<u>128.90</u>

**Municipal Water District of Orange County
Disbursement Approval Report
For the month of October 2022**

Vendor/ Invoice	Description	Amount to Pay
Orange County Water District		
24657	August 2022 Postage for Water Use Efficiency rebate programs	35.35
Total		<u>35.35</u>
Total Choice Expenditures		<u>20,654.25</u>
 Other Funds Expenditures:		
E Source Companies LLC		
21571	August 2022 Technical Assistance Program services for Water Loss Control	23,125.00
21666	September 2022 Technical Assistance Program services for Water Loss Control	32,070.00
Total		<u>55,195.00</u>
EcoTech Services Inc		
2402	August 2022 Landscape Design and Landscape Maintenance Assistance Program	5,808.00
Total		<u>5,808.00</u>
El Toro Water District		
0000070	August 2022 Invoice for Soft Costs & Site Grading Primary EOC	135,123.00
Total		<u>135,123.00</u>
Large Plumbing		
25985	August 2022 Services for Pressure Regulating Valve program	1,485.00
25999	September 2022 Services for Pressure Regulating Valve program	13,310.00
Total		<u>14,795.00</u>
Mission RCD		
3252	September 2022 Field inspection and verification for Water Use Efficiency rebate programs	7,713.72
Total		<u>7,713.72</u>
The Plant Nerd		
7483	September 2022 Landscape Design and Landscape Maintenance Assistance Program	25,530.00
Total		<u>25,530.00</u>
Soto Resources-Joey C Soto		
SA-SEP-67	September 2022 Grant Administration Services for Prop 1 North	429.00
Total		<u>429.00</u>

**Municipal Water District of Orange County
Disbursement Approval Report
For the month of October 2022**

Vendor/ Invoice	Description	Amount to Pay
TerraWorks Studio		
MW0015	September 2022 Landscape Design and Landscape Maintenance Assistance Program	875.00
Total		<u>875.00</u>
Water System Consulting Inc		
7096	August 2022 Water Use Efficiency Economic Analysis	5,000.00
Total		<u>5,000.00</u>
Total Other Funds Expenditures		<u>250,468.72</u>
Total Expenditures		<u><u>395,872.37</u></u>

**Municipal Water District of Orange County
Disbursement Ratification Report
For the Month of September 2022**

Name/ Date	Check/ EFT	Invoice	Description	Amount
Core Disbursements:				
Joseph Berg				
9/30/2022	EFT	91222	September 2022 Business expense	123.43
Total				123.43
Hilary Chumpitazi				
9/30/2022	EFT	81622	August 2022 Business expense	12.93
Total				12.93
Corodata Records Management Inc				
9/15/2022	EFT	RS4832459	August 2022 Records Storage Fees	58.22
Total				58.22
Harvey De La Torre				
9/30/2022	EFT	91922	September 2022 Business expense	105.49
Total				105.49
Tina Fann				
9/30/2022	EFT	81722	August 2022 Business expense	51.76
Total				51.76
Robert McVicker				
9/30/2022	EFT	82622	August 2022 Business expense	108.76
Total				108.76
Al Nederhood				
9/30/2022	EFT	92122	September 2022 Business expense	28.88
Total				28.88
Alana Salas-Yoshii				
9/30/2022	EFT	82922	August 2022 Business expense	27.25
9/30/2022	EFT	92422	September 2022 Business expense	108.07
Total				135.32
Karl Seckel				
9/30/2022	EFT	80222	August 2022 Business expense	78.75
Total				78.75
Spectrum Business				
9/22/2022	141237	343564091022	September 2022 Telephone expense for fax line	39.99
9/08/2022	141216	375210083022	September 2022 Telephone and internet expense	1,426.93
Total				1,466.92

**Municipal Water District of Orange County
Disbursement Ratification Report
For the Month of September 2022**

Name/ Date	Check/ EFT	Invoice	Description	Amount
Satoru Tamaribuchi				
9/30/2022	EFT	82622	August 2022 Business expense	98.76
Total				98.76
US Bank				
9/30/2022	141289	0208/4192/4279-AUG22	7/23/22-8/22/22 Cal Card Charges	9,953.09
Total				9,953.09
Verizon Wireless				
9/08/2022	141217	9914201989	August 2022 4G Mobile broadband unlimited service	114.03
Total				114.03
Total Core Disbursements				12,336.34
Choice Disbursements:				
Santa Margarita Water District (ID9)				
9/15/2022	141230	17140	FY 2022-2023 Choice Programs Billing Refund	15,312.53
Total				15,312.53
US Bank				
9/30/2022	141289	4279-AUG22	7/23/22-8/22/22 Cal Card Charges	569.04
Total				569.04
US Bank Voyager Fleet Systems				
9/30/2022	EFT	8694349932235	7/25/22-8/24/22 Fuel for Water Loss Control Shared Services vehicles	1,032.32
Total				1,032.32
Total Choice Disbursements				16,913.89
Other Funds Disbursements:				
AT&T				
9/15/2022	141221	18689804	August 2022 Telephone expense for WEROC Primary & N. EOC	497.91
Total				497.91
Mesa Water District				
9/15/2022	EFT	10898	July 2022 Credit for Local Resources program	91,480.44
Total				91,480.44

**Municipal Water District of Orange County
Disbursement Ratification Report
For the Month of September 2022**

Name/ Date	Check/ EFT	Invoice	Description	Amount
Metropolitan Water District				
9/30/2022	EFT93022	10856	July 2022 Water deliveries	18,726,473.31
Total				18,726,473.31
Santa Margarita Water District				
9/30/2022	EFT	73122	July 2022 SCP Operation Surcharge	16,069.98
Total				16,069.98
Santiago Aqueduct Commission				
9/30/2022	141286	73122	July 2022 SAC Pipeline Operation Surcharge	2,784.98
Total				2,784.98
Spray to Drip Rebate				
9/29/2022	141245	S2D4-R-IRWD-42460-18072	T. Bruton	646.80
9/29/2022	141252	S2D5-C-HB-44331-18564	Harbor Heights Villas (Huntington Beach)	5,120.50
9/29/2022	141267	S2D5-C-SM-38663-18618	Mission Courts II Mnt Corp (Rancho Santa Margarita)	1,989.00
9/29/2022	141269	S2D5-R-HB-42351-18907	S. Seaton	327.00
9/29/2022	141260	S2D5-R-HB-46474-18574	J. Lee	416.50
9/29/2022	141265	S2D5-R-HB-46790-18993	J. Milbury	224.50
9/29/2022	141257	S2D5-R-HB-47767-18964	I. Kass	392.00
9/29/2022	141247	S2D5-R-IRWD-46130-18565	P. Chung	571.90
9/29/2022	141262	S2D5-R-IRWD-47646-18930	B. Lypka	872.20
9/29/2022	141242	S2D5-R-SM-46224-18789	O. Bevez	345.50
9/29/2022	141240	S2D5-R-SM-46561-18598	P. Beckstrom	558.00
Total				11,463.90
Turf Rebate				
9/29/2022	141249	TR14-R-HB-39889-38713	T. Crandell	504.00
9/29/2022	141246	TR14-R-SOCO-42337-41050	S. Chun	2,536.00
9/29/2022	141253	TR15-C-HB-44331-45058	Harbor Heights Villas (Huntington Beach)	14,050.00
9/29/2022	141274	TR15-C-IRWD-38663-43299	Towne Centre Owners Assc Inc (Foothill Ranch)	33,750.60
9/29/2022	141244	TR15-C-IRWD-44434-45238	Brindisi HOA (Irvine)	1,252.00
9/29/2022	141276	TR15-C-MNT-45816-44451	Wood Canyon Villas LP (Aliso Viejo)	3,384.53
9/29/2022	141273	TR15-C-SC-4463-44761	St Andrews Church (San Clemente)	4,452.00
9/29/2022	141256	TR15-C-YLWD-44331-44863	Jondo Ltd (Yorba Linda)	10,047.00
9/29/2022	141270	TR15-R-HB-42351-41065	S. Seaton	1,188.00
9/29/2022	141261	TR15-R-HB-46474-45113	J. Lee	2,415.00
9/29/2022	141266	TR15-R-HB-46790-45429	J. Milbury	1,347.00
9/29/2022	141258	TR15-R-HB-47767-46351	I. Kass	2,091.00
9/29/2022	141248	TR15-R-IRWD-46130-44762	P. Chung	1,845.97
9/29/2022	141271	TR15-R-IRWD-46407-45045	S. Shamansky	675.30
9/29/2022	141238	TR15-R-IRWD-46910-45538	J. Barger	3,000.00
9/29/2022	141264	TR15-R-IRWD-47063-45668	J. Metz	2,756.00
9/29/2022	141272	TR15-R-IRWD-47103-45712	A. Sosin	1,684.00
9/29/2022	141263	TR15-R-IRWD-47646-46236	B. Lypka	4,664.35
9/29/2022	141254	TR15-R-IRWD-48023-46585	K. Huang	2,600.00

**Municipal Water District of Orange County
Disbursement Ratification Report
For the Month of September 2022**

Name/ Date	Check/ EFT	Invoice	Description	Amount
Turf Rebate-Continued				
9/29/2022	141259	TR15-R-MNT-42457-42755	A. Kishore	1,404.00
9/29/2022	141250	TR15-R-MNT-47369-45971	R. Glatley	5,896.00
9/29/2022	141251	TR15-R-MNT-47898-46476	L. Goldberg	2,528.00
9/29/2022	141255	TR15-R-O-45808-44440	E. Javier	5,700.00
9/29/2022	141268	TR15-R-O-46741-45375	A. Nguyen	6,567.00
9/29/2022	141243	TR15-R-SM-46224-44851	O. Bevz	1,587.00
9/29/2022	141241	TR15-R-SM-46561-45204	P. Beckstrom	3,090.00
9/29/2022	141239	TR15-R-SM-47664-46251	J. Beall	585.00
9/29/2022	141275	TR15-R-SM-47756-46341	J. Vaskovich	996.00
Total				122,595.75
US Bank				
9/30/2022	141289	6066-AUG22	7/23/22-8/22/22 Cal Card Charges	73.73
Total				73.73
Verizon Wireless				
9/08/2022	141217	9914201989	August 2022 4G Mobile broadband unlimited service	76.02
Total				76.02
Total Other Funds Disbursements				18,971,516.02
Total Disbursements				19,000,766.25


Robert J. Hunter, General Manager


Hilary Chumpitazi, Treasurer

Cal Card Charges
Statement Date: August 22, 2022
Payment Date: September 30, 2022

Date	Description	Amount
R. Hunter Card:		
7/20/2022	Urban Water Institute conference in San Diego, CA from August 24-26, 2022 - Registration for Director Tamaribuchi	575.00
7/22/2022	CSDA Annual Conference in Palm Desert, CA from August 22-25, 2022 - Accommodation deposit for H. Baez	176.71
7/25/2022	CAPIO Annual Conference in San Diego, CA from August 29 - September 1, 2022 - Registration for T. Baca	625.00
7/27/2022	CalPERS Educational Forum from November 1-3, 2022 in Anaheim, CA - Registration for C. Harris, H. Chumpitazi, and K. Davanaugh	1,347.00
7/27/2022	Department of Water Resources Annual Meeting in Sacramento, CA from July 25-27, 2022 - Accommodations for T. Baca and K. Vincent	441.56
7/28/2022	ISDOC quarterly luncheon boxed lunches from Mendicino Farms on July 28, 2022 -	1,271.84 ¹
7/31/2022	CA-NV AWWA Water Education Seminar at Santiago Canyon College in Orange, CA on August 17, 2022 - Registration for S. Fetter	200.00
8/17/2022	CalWEP Board Meeting and Plenary in Oakland, CA on September 8, 2022 - Airfare for J. Berg with flight credit applied	61.00
Total:		4,698.11
C. Harris Card:		
7/21/2022	Water Loss Control Shared Services Van Oil Change and Service	160.00
7/24/2022	6/25/22-7/24/22 Web hosting service for MWDOC website	15.65
8/05/2022	Water Loss Control Shared Service Truck Oil Change and Service	89.81
8/09/2022	Five year employee service awards for C. Hernandez and M. DeCasas	50.00
8/09/2022	Water Loss Control Shared Services supplies	163.65
8/10/2022	Four spare monitors for staff	454.92
8/10/2022	Docking stations for Accountant and Network Systems Engineer	289.26
8/10/2022	8/12/22 Office supplies and Water Loss Control Shared Services supplies	430.72
8/12/2022	Laptops for General Manager and Senior Water Use Efficiency Analyst	1,780.58
8/15/2022	FedEx delivery charge on August 15, 2022	10.80
8/16/2022	8/16/22 Water Loss Control Shared Services supplies	51.08
8/19/2022	Uniform for Water Loss Control Shared Services staff member	44.56
Total:		3,541.03

Cal Card Charges
Statement Date: August 22, 2022
Payment Date: September 30, 2022

Date	Description	Amount
Public Affairs Card:		
7/26/2022	Promotional item - playing cards final payment to Project Energy Savers	1,179.94
7/27/2022	K. Vincent July 2022 Business expense for Department of Water Resources Annual Meeting in Sacramento, CA from July 25-27, 2022	293.12
7/30/2022	California Association of Public Information Officials annual membership renewal for S.	275.00
8/02/2022	8/2/22-9/1/22 Zoom Video Communications fee with audio licenses	174.93
8/03/2022	August 2022 Public Storage Unit for Public Affairs	360.00
Total:		2,282.99

WEROC Card:

8/19/2022	Lunch for WEROC Specialist Interview Panel Members	73.73
Total:		73.73

¹ Expense reimbursed by ISDOC

Municipal Water District of Orange County
GM Approved Disbursement Report⁽¹⁾
For the Month of September 2022

ITEM 1D

Name/ Date	Check/ EFT	Invoice	Description	Amount
Core Disbursements:				
Graham Bradner				
9/30/2022	141277	BRADNER22	9/16/22 OC Water Summit speaker travel reimbursement	516.01
Total				516.01
Disney Destinations LLC				
9/14/2022	141236	3024-6758	9/16/22 OC Water Summit event location	95,415.62
Total				95,415.62
Michael George				
9/30/2022	141281	GEORGE22	9/16/22 OC Water Summit speaker travel reimbursement	292.71
Total				292.71
Jerry Meral				
9/30/2022	141283	MERAL22	9/16/22 OC Water Summit speaker travel reimbursement	595.24
Total				595.24
Robinette Consulting LLC				
9/30/2022	141285	ROBINETTE22	9/16/22 OC Water Summit speaker travel reimbursement	398.96
Total				398.96
Stoneside Blinds & Shades				
9/30/2022	141288	SO98814	50% Deposit on Window blinds for MWDOC office windows	8,330.83
Total				8,330.83
Total Core Disbursements				105,549.37
Choice Disbursements:				
Total Choice Disbursements				-
Other Funds Disbursements:				
Total Other Funds Disbursements				-
Total Disbursements				105,549.37


 Robert J. Hunter, General Manager


 Hilary Chumvitazi, Treasurer

⁽¹⁾ For disbursements that did not make the cut-off of previous month's Disbursement Approval report. Disbursements are approved by GM for payment and need A & F Committee ratification.



Municipal Water District of Orange County Consolidated Summary of Cash and Investment August 31, 2022

Street Address:
18700 Ward Street
Fountain Valley, California 92708

Mailing Address:
P.O. Box 20895
Fountain Valley, CA 92728-0895

(714) 963-3058
Fax: (714) 964-9389
www.mwdoc.com

Megan Yoo Schneider, P.E.
President

Bob McVicker, P.E., D.WRE
Vice President

Al Nederhood
Director

Larry D. Dick
Director

Karl W. Seckel, P.E.
Director

Sat Tamaribuchi
Director

Jeffrey M. Thomas
Director

Robert J. Hunter
General Manager

MEMBER AGENCIES

City of Brea
City of Buena Park
East Orange County Water District
El Toro Water District
Emerald Bay Service District
City of Fountain Valley
City of Garden Grove
Golden State Water Co.
City of Huntington Beach
Irvine Ranch Water District
Laguna Beach County Water District
City of La Habra
City of La Palma
Mesa Water District
Moulton Niguel Water District
City of Newport Beach
City of Orange
Orange County Water District
City of San Clemente
Santa Margarita Water District
City of Seal Beach
Serrano Water District
South Coast Water District
Trabuco Canyon Water District
City of Tustin
City of Westminster
Yorba Linda Water District

District investments and cash balances are held in various funds designated for certain purposes as follows:

Fund	Book Value	% of Portfolio
Designated Reserves		
General Operations	\$3,738,505	19.43%
Grant & Project Cash Flow	1,500,000	7.80%
Election Expense	461,678	2.40%
Building Repair	436,542	2.27%
OPEB	297,147	1.54%
Total Designated Reserves	6,433,872	33.44%
General Fund	\$10,469,034	54.40%
Water Fund	1,880,542	9.77%
Conservation Fund	(226,119)	(1.18%)
WEROC Fund	667,204	3.47%
Trustee Activities	18,533	0.10%
Total	\$19,243,066	100.00%

The funds are invested as follows:

Term of Investment	% of Portfolio	Book Value	Market Value
Cash	0.71%	\$136,139	\$136,139
Short-term investment			
• LAIF	62.14%	11,960,373	11,960,373
• OCIP	21.04%	4,046,639	4,046,639
Long-term investment			
• US Government Issues	1.30%	249,915	226,220
• Corporate Bond	6.24%	1,200,000	1,099,044
• Certificates of Deposit	8.57%	1,650,000	1,621,516
Total	100.00%	\$19,243,066	\$19,089,931

The average number of days to maturity/call as of August 31, 2022 equaled 96 and the average yield to maturity is 1.331%. During the month, the District's average daily balance was \$28,994,589.55. Funds were invested in US Bank Checking Account, Negotiable Certificate of Deposits, Corporate Bonds, US Government Issues, Local Agency Investment Funds (LAIF) and Orange County Investment Pool (OCIP) during the month of August 2022.

The (\$153,135) difference between the book value and the market value on August 31, 2022 represents the exchange difference if all investments had been liquidated on that date. Since it is the District's practice to "buy and hold" investments until maturity, the market values are a point of reference, not an indication of actual loss or gain. There are no current plans or cash flow requirements identified in the near future that would require the sale of these securities prior to maturity.


Robert J. Hunter
General Manager


Hilary Chumpitazi
Treasurer



MUNICIPAL WATER DISTRICT OF ORANGE COUNTY


Portfolio Management - Portfolio Summary August 31, 2022

8/31/2022	Par Value	Market Value	Book Value	% of Portfolio	Days to Mat/Call	YTM @ Cost
Negotiable Certificate Of Deposit	1,650,000.00	1,621,515.50	1,650,000.00	8.63	705	2.550
Corporate Bond	1,200,000.00	1,099,044.00	1,200,000.00	6.28	527	1.518
US Government Issues	250,000.00	226,220.00	249,914.67	1.31	87	0.860
Local Agency Investment Funds	11,960,372.91	11,960,372.91	11,960,372.91	62.60	1	1.273
Orange County Investment Pool	4,046,639.24	4,046,639.24	4,046,639.24	21.18	1	0.979
Total Investments	19,107,012.15	18,953,791.65	19,106,926.82	100.00	96	1.331

Cash						
Cash	136,139.55	136,139.55	136,139.55		1	0.00
Total Cash and Investments	19,243,151.70	19,089,931.20	19,243,066.37		96	1.331

Total Earnings	Month Ending August	Fiscal Year to Date
Current Year	30,601.81	49,672.65
Average Daily Balance	28,994,589.55	
Effective Rate of Return	1.331%	

We certify that this report reflects the cash and investments of the Municipal Water District of Orange County and is in conformity with the Government Code requirements and the District Investment Policy and Guidelines in effect at the time of investment. The Investment Program herein shown provides sufficient cash flow liquidity to meet the next six month's estimated expenditure. The source for the market values are from U.S. Bank. Per Resolution 2059 there are no compliance exceptions to report.


Robert J. Hunter, General Manager

Date 10/06/2022


Hilary Chumtazi, Treasurer

Date 10/06/2022

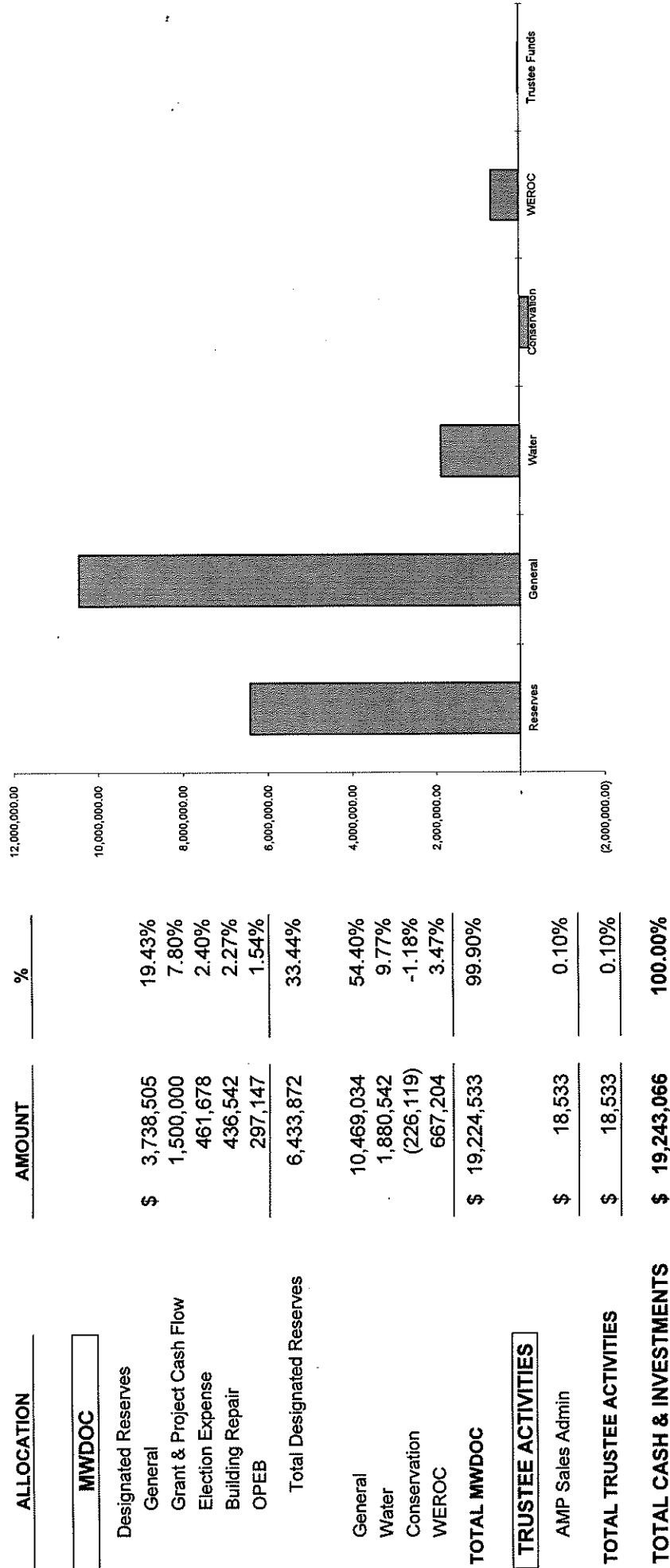
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Portfolio Management
Long-Term Portfolio Details - Investments
August 31, 2022

Issuer	CUSIP/Ticker	Settlement Date	Par Value	Market Value	Book Value	Coupon Rate	YTM @ Cost	Days To Call/Maturity	Maturity Date
Negotiable Certificate Of Deposit									
American Express Bank	02589ADE9	7/20/2022	200,000.00	198,590.00	200,000.00	3.350	3.350	1,784	7/20/2027
Barclays Bank	06740KKY2	9/27/2017	250,000.00	250,025.00	250,000.00	2.250	2.250	27	9/27/2022
Capital One Bank	14042TBO9	8/7/2019	250,000.00	244,750.00	250,000.00	2.250	2.250	707	8/7/2024
Capital One NA	14042RMJ7	7/24/2019	250,000.00	244,662.50	250,000.00	2.200	2.200	693	7/24/2024
Discover Bank	254673RV0	7/25/2018	250,000.00	250,477.50	250,000.00	3.300	3.300	328	7/25/2023
Goldman Sachs Bank	38148PT98	8/8/2018	250,000.00	250,552.50	250,000.00	3.350	3.350	342	8/8/2023
Sallie Mae Bank	7954507A7	7/14/2021	200,000.00	182,458.00	200,000.00	1.000	1.000	1,413	7/14/2026
Sub Total			1,650,000.00	1,621,515.50	1,650,000.00	2.550	2.550	705	
US Government Issues									
FHLB	3130ALGR9	3/1/2021	250,000.00	226,220.00	249,914.67	0.850	0.860	87	2/26/2026
Sub Total			250,000.00	226,220.00	249,914.67	0.850	0.860	87	
Corporate Bond									
Bank of America Corp	06048WK41	12/7/2020	250,000.00	223,277.50	250,000.00	0.650	0.800	1,182	11/25/2025
Citigroup Global Markets	17328WFZ6	9/16/2020	250,000.00	223,580.00	250,000.00	1.000	1.000	16	9/16/2025
JP Morgan Chase	48128GV56	8/18/2020	250,000.00	226,130.00	250,000.00	0.800	0.800	718	8/18/2025
Morgan Stanley Fin LLC	61766YKH3	6/29/2022	200,000.00	199,364.00	200,000.00	4.500	4.500	668	6/29/2027
Societe Generale	83369MD25	8/19/2020	250,000.00	226,692.50	250,000.00	1.000	1.088	80	8/19/2025
Sub Total			1,200,000.00	1,099,044.00	1,200,000.00	1.469	1.518	527	
Total Investments			3,100,000.00	2,946,779.50	3,099,914.67	1.994	2.014	586	
Total Earnings									
			Month Ending August		Fiscal Year To Date				
Current Year			5,258.03		10,382.40				

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Portfolio Management
Short-Term Portfolio Details - Cash and Investments
August 31, 2022

Investments	CUSIP/Ticker	Settlement Date	Par Value	Market Value	Book Value	Coupon Rate	YTM @ Cost	Days To Call/Maturity	Maturity Date
Local Agency Investment Funds									
LAIF LGIP	LAIF	6/30/2010	11,960,372.91	11,960,372.91	11,960,372.91	1.273	1.273	1	N/A
Sub Total			11,960,372.91	11,960,372.91	11,960,372.91	1.273	1.273	1	
Orange County Investment Pool									
County of Orange LGIP	OCIP	6/29/2005	4,046,639.24	4,046,639.24	4,046,639.24	0.979	0.979	1	N/A
Sub Total			4,046,639.24	4,046,639.24	4,046,639.24	0.979	0.979	1	
Total Investments			16,007,012.15	16,007,012.15	16,007,012.15	1.199	1.199		
Cash									
Petty Cash Cash	CASH	7/1/2010	500.00	500.00	500.00	0.000	0.000	1	N/A
US Bank Cash	CASHUSBANK	7/25/2018	135,639.55	135,639.55	135,639.55	0.000	0.000	1	N/A
Total Cash			136,139.55	136,139.55	136,139.55	0.000	0.000	1	
Total Cash and Investments			16,143,151.70	16,143,151.70	16,143,151.70	1.199	1.199	1	
Total Earnings									
Current Year			Month Ending August	Fiscal Year To Date					
			25,343.78	39,290.25					

**Municipal Water District of Orange County
Cash and Investments at August 31, 2022**



MUNICIPAL WATER DIST OF ORANGE COUNTY
PARS Post-Employment Benefits TrustAccount Report for the Period
8/1/2022 to 8/31/2022Hilary Chumpitazi
Accounting Manager
Municipal Water Dist of Orange County
18700 Ward Street
Fountain Valley, CA 92708

Account Summary

Source	Balance as of 8/1/2022	Contributions	Earnings	Expenses	Distributions	Transfers	Balance as of 8/31/2022
OPEB	\$2,520,833.70	\$0.00	-\$67,139.33	\$1,194.33	\$0.00	\$0.00	\$2,452,500.04
PENSION	\$887,151.45	\$207,000.00	-\$26,284.43	\$420.32	\$0.00	\$0.00	\$1,067,446.70
Totals	\$3,407,985.15	\$207,000.00	-\$93,423.76	\$1,614.65	\$0.00	\$0.00	\$3,519,946.74

Investment Selection

Source	
OPEB	Moderate HighMark PLUS
PENSION	Moderate HighMark PLUS

Investment Objective

Source	
OPEB	The dual goals of the Moderate Strategy are growth of principal and income. It is expected that dividend and interest income will comprise a significant portion of total return, although growth through capital appreciation is equally important. The portfolio will be allocated between equity and fixed income investments.
PENSION	The dual goals of the Moderate Strategy are growth of principal and income. It is expected that dividend and interest income will comprise a significant portion of total return, although growth through capital appreciation is equally important. The portfolio will be allocated between equity and fixed income investments.

Investment Return

Source	1-Month	3-Months	1-Year	Annualized Return			Plan's Inception Date
				3-Years	5-Years	10-Years	
OPEB	-2.66%	-3.31%	-12.65%	4.09%	4.70%	6.07%	10/26/2011
PENSION	-2.63%	-3.28%	-12.63%	4.05%	-	-	7/31/2018

Information as provided by US Bank, Trustee for PARS; Not FDIC Insured; No Bank Guarantee; May Lose Value

Past performance does not guarantee future results. Performance returns may not reflect the deduction of applicable fees, which could reduce returns. Information is deemed reliable but may be subject to change.

Investment Return: Annualized rate of return is the return on an investment over a period other than one year multiplied or divided to give a comparable one-year return.

Account balances are inclusive of Trust Administration, Trustee and Investment Management fees

ITEM 2

**MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
COMBINED FINANCIAL STATEMENTS
AND
BUDGET COMPARATIVE
JULY 1, 2022 THRU AUGUST 31, 2022**

**Municipal Water District of Orange County
Combined Balance Sheet
As of August 31, 2022**

	<u>Amount</u>
<u>ASSETS</u>	
Cash in Bank	136,139.55
Investments	19,106,926.82
Accounts Receivable	39,071,991.52
Accounts Receivable - Other	685,909.07
Accrued Interest Receivable	53,796.10
Prepays/Deposits	384,282.28
Leasehold Improvements	7,001,517.44
Furniture, Fixtures & Equipment	885,094.81
Less: Accumulated Depreciation	<u>(3,762,214.75)</u>
TOTAL ASSETS	<u><u>63,563,442.84</u></u>
<u>LIABILITIES AND FUND BALANCES</u>	
<u>LIABILITIES</u>	
Accounts Payable	39,549,309.10
Accounts Payable - Other	182.00
Accrued Salaries and Benefits Payable	660,909.79
Other Liabilities	927,473.94
Unearned Revenue	<u>1,079,649.00</u>
TOTAL LIABILITIES	<u><u>42,217,523.83</u></u>
<u>FUND BALANCES</u>	
<u>Unrestricted Fund Balances</u>	
<u>Designated Reserves</u>	
General Operations	3,738,505.00
Grant & Project Cash Flow	1,500,000.00
Election Expense	461,678.00
Building Repair	436,542.00
OPEB	<u>297,147.00</u>
Total Designated Reserves	<u>6,433,872.00</u>
General Fund	5,811,879.95
General Fund Capital	83,747.32
WEROC	159,687.58
WEROC Capital	<u>159,945.34</u>
Total Unrestricted Fund Balances	<u>12,649,132.19</u>
<u>Excess Revenue over Expenditure</u>	
Operating Fund	8,690,438.84
Other Funds	<u>6,347.98</u>
TOTAL FUND BALANCES	<u><u>21,345,919.01</u></u>
TOTAL LIABILITIES AND FUND BALANCES	<u><u>63,563,442.84</u></u>

Municipal Water District of Orange County
Revenues and Expenditures Budget Comparative Report
General Fund
July 1, 2022 thru August 31, 2022

	<u>Month to Date</u>	<u>Year to Date</u>	<u>Annual Budget</u>	<u>% Used</u>	<u>Encumbrance</u>	<u>Budget Remaining</u>
<u>REVENUES</u>						
Retail Connection Charge	0.00	8,885,401.25	8,885,401.25	100.00%	0.00	0.00
Ground Water Customer Charge	0.00	367,806.00	367,805.72	100.00%	0.00	(0.28)
Water Rate Revenues	0.00	9,253,207.25	9,253,206.97	100.00%	0.00	(0.28)
Interest Revenue	31,278.79	50,854.77	145,971.00	34.84%	0.00	95,116.23
Subtotal	31,278.79	9,304,062.02	9,399,177.97	98.99%	0.00	95,115.95
Choice Programs	1,173,403.90	1,173,403.90	1,757,951.87	66.75%	0.00	584,547.97
Miscellaneous Income	576.44	576.44	3,000.00	19.21%	0.00	2,423.56
Transfer-In from Reserve	0.00	0.00	457,061.00	0.00%	0.00	457,061.00
Subtotal	1,173,980.34	1,173,980.34	2,218,012.87	52.93%	0.00	1,044,032.53
TOTAL REVENUES	1,205,259.13	10,478,042.36	11,617,190.84	90.19%	0.00	1,139,148.48

Municipal Water District of Orange County
Revenues and Expenditures Budget Comparative Report
General Fund
July 1, 2022 thru August 31, 2022

	<u>Month to Date</u>	<u>Year to Date</u>	<u>Annual Budget</u>	<u>% Used</u>	<u>Encumbrance</u>	<u>Budget Remaining</u>
<u>EXPENSES</u>						
Salaries & Wages	387,963.15	752,489.99	4,429,129.50	16.99%	0.00	3,676,639.51
Salaries & Wages - Grant Recovery	0.00	0.00	(20,000.00)	0.00%	0.00	(20,000.00)
Director's Compensation	22,592.67	45,512.77	275,041.20	16.55%	0.00	229,528.43
MWD Representation	12,114.91	22,265.24	157,166.40	14.17%	0.00	134,901.16
Employee Benefits	125,139.74	240,141.20	1,441,831.24	16.66%	0.00	1,201,690.04
CalPers Unfunded Liability Contribution	207,000.00	207,000.00	207,000.00	100.00%	0.00	0.00
Director's Benefits	9,215.18	18,265.37	132,976.50	13.74%	0.00	114,711.13
Health Insurance for Retirees	4,373.61	8,146.71	94,554.00	8.62%	0.00	86,407.29
Training Expense	835.00	835.00	53,000.00	1.58%	0.00	52,165.00
Tuition Reimbursement	0.00	0.00	5,000.00	0.00%	0.00	5,000.00
Temporary Help Expense	0.00	0.00	5,000.00	0.00%	0.00	5,000.00
Personnel Expenses	769,234.26	1,294,656.28	6,780,698.84	19.09%	0.00	5,486,042.56
Engineering Expense	16,031.46	33,390.46	410,000.00	8.14%	210,973.07	165,636.47
Legal Expense	11,167.50	18,403.50	235,750.00	7.81%	14,550.00	202,796.50
Audit Expense	0.00	7,000.00	35,000.00	20.00%	24,500.00	3,500.00
Professional Services	54,524.04	104,113.44	1,516,256.00	6.87%	764,538.16	647,604.40
Professional Fees	81,723.00	162,907.40	2,197,006.00	7.41%	1,014,561.23	1,019,537.37
Conference - Staff	1,972.00	3,127.00	56,205.00	5.56%	0.00	53,078.00
Conference - Directors	575.00	734.00	23,905.00	3.07%	0.00	23,171.00
Travel & Accom. - Staff	1,822.76	4,213.41	90,325.00	4.66%	0.00	86,111.59
Travel & Accom. - Directors	0.00	0.00	32,900.00	0.00%	0.00	32,900.00
Travel & Conference	4,369.76	8,074.41	203,335.00	3.97%	0.00	195,260.59
Membership/Sponsorship	275.00	58,160.25	145,847.00	39.88%	0.00	87,686.75
CDR Support	0.00	14,365.50	57,462.00	25.00%	43,096.50	0.00
Dues & Memberships	275.00	72,525.75	203,309.00	35.67%	43,096.50	87,686.75
Business Expense	103.86	103.86	2,500.00	4.15%	0.00	2,396.14
Office Maintenance	17,078.78	23,634.72	151,400.00	15.61%	67,465.28	60,300.00
Building Repair & Maintenance	270.30	1,019.75	22,056.00	4.62%	9,458.55	11,577.70
Storage Rental & Equipment Lease	58.22	116.44	1,800.00	6.47%	683.56	1,000.00
Office Supplies	1,397.06	2,057.75	35,000.00	5.88%	4,402.56	28,539.69
Supplies - Water Loss Control	646.73	972.40	4,000.00	24.31%	0.00	3,027.60
Postage/Mail Delivery	715.03	1,373.49	11,300.00	12.15%	2,031.53	7,894.98
Subscriptions & Books	0.00	0.00	1,000.00	0.00%	0.00	1,000.00
Reproduction Expense	3,738.31	5,456.56	84,000.00	6.50%	5,995.53	72,547.91
Maintenance - Computers	289.26	1,211.43	7,000.00	17.31%	651.56	5,137.01
Software Purchase	9,947.63	13,669.42	95,093.00	14.37%	44,478.94	36,944.64
Software Support	11,819.40	16,968.34	55,615.00	30.51%	0.00	38,646.66
Computers and Equipment	2,235.50	3,898.98	43,950.00	8.87%	0.00	40,051.02
Maintenance Expense	0.00	0.00	6,000.00	0.00%	0.00	6,000.00
Automotive Expense	338.03	364.16	13,500.00	2.70%	0.00	13,135.84
Vehicle Expense	1,282.13	2,559.41	7,343.00	34.86%	0.00	4,783.59
Toll Road Charges	0.00	0.00	2,100.00	0.00%	0.00	2,100.00
Insurance Expense	17,443.66	31,421.31	140,000.00	22.44%	0.00	108,578.69
Utilities - Telephone	2,935.95	5,933.45	43,690.00	13.58%	1,140.30	36,616.25
Bank Fees	0.00	452.34	2,600.00	17.40%	0.00	2,147.66
Miscellaneous Expense	(517.83)	2,742.53	69,520.00	3.94%	3,600.00	63,177.47
MWDOC's Contrb. to WEROC	24,690.83	49,381.70	296,290.00	16.67%	0.00	246,908.30
Depreciation Expense	7,951.31	15,902.62	0.00	0.00%	0.00	(15,902.62)
Other Expenses	102,424.16	179,240.66	1,095,757.00	16.36%	139,907.81	776,608.53
Election Expense	0.00	0.00	300,728.00	0.00%	0.00	300,728.00
Capital Aquisition	14,272.44	70,199.02	113,280.00	61.97%	84,630.88	(41,549.90)
Building Expense	0.00	0.00	723,077.00	0.00%	16,937.00	706,140.00
TOTAL EXPENSES	972,298.62	1,787,603.52	11,617,190.84	15.39%	1,299,133.42	8,530,453.90
NET INCOME (LOSS)	232,960.51	8,690,438.84	0.00	0.00%	(1,299,133.42)	(7,391,305.42)

Municipal Water District of Orange County
Revenues and Expenditures Budget Comparative Report
Water Fund
July 1, 2022 thru August 31, 2022

	<u>Month to Date</u>	<u>Year to Date</u>	<u>Annual Budget</u>	<u>% Used</u>	<u>Budget Remaining</u>
<u>WATER REVENUES</u>					
Water Sales	18,867,772.20	36,130,604.20	157,620,717.70	22.92%	121,490,113.50
Readiness to Serve Charge	1,014,375.00	2,028,751.45	11,142,354.00	18.21%	9,113,602.55
Capacity Charge CCF	449,265.00	898,529.86	5,396,060.00	16.65%	4,497,530.14
SCP/SAC Pipeline Surcharge	51,770.62	70,625.58	318,000.00	22.21%	247,374.42
Interest Revenue	0.00	0.00	4,547.00	0.00%	4,547.00
TOTAL WATER REVENUES	20,383,182.82	39,128,511.09	174,481,678.70	22.43%	135,353,167.61
<u>WATER PURCHASES</u>					
Water Sales	18,867,772.20	36,130,604.20	157,620,717.70	22.92%	121,490,113.50
Readiness to Serve Charge	1,014,375.00	2,028,751.31	11,142,354.00	18.21%	9,113,602.69
Capacity Charge CCF	449,265.00	898,530.00	5,396,060.00	16.65%	4,497,530.00
SCP/SAC Pipeline Surcharge	51,770.62	70,625.58	318,000.00	22.21%	247,374.42
TOTAL WATER PURCHASES	20,383,182.82	39,128,511.09	174,477,131.70	22.43%	135,348,620.61
EXCESS OF REVENUE OVER EXPENDITURE	0.00	0.00	4,547.00	0.00%	4,547.00

**Municipal Water District of Orange County
Revenues and Expenditures Budget Comparative Report
Water Use Efficiency
July 1, 2022 thru August 31, 2022**

	<u>Year to Date Actual</u>	<u>Annual Budget</u>	<u>% Used</u>
Spray To Drip Conversion			
Revenues	4,433.19	434,927.51	1.02%
Expenses	17,808.52	434,927.51	4.09%
Excess of Revenues over Expenditures	(13,375.33)	0.00	
Member Agency Administered Pass-Thru			
Revenues	0.00	255,000.00	0.00%
Expenses	0.00	255,000.00	0.00%
Excess of Revenues over Expenditures	0.00	0.00	
ULFT Rebate Program			
Revenues	0.00	1,000.00	0.00%
Expenses	0.00	1,000.00	0.00%
Excess of Revenues over Expenditures	0.00	0.00	
HECW Rebate Program			
Revenues	522.01	60,000.00	0.87%
Expenses	0.00	60,000.00	0.00%
Excess of Revenues over Expenditures	522.01	0.00	
CII Rebate Program			
Revenues	0.00	2,000.00	0.00%
Expenses	0.00	2,000.00	0.00%
Excess of Revenues over Expenditures	0.00	0.00	
Turf Removal Program			
Revenues	592,026.77	6,061,364.00	9.77%
Expenses	824,140.20	6,061,364.00	13.60%
Excess of Revenues over Expenditures	(232,113.43)	0.00	
Comprehensive Landscape (CLWUE)			
Revenues	0.00	321,700.00	0.00%
Expenses	2,574.50	321,700.00	0.80%
Excess of Revenues over Expenditures	(2,574.50)	0.00	
Recycled Water Program			
Revenues	0.00	50,000.00	0.00%
Expenses	0.00	50,000.00	0.00%
Excess of Revenues over Expenditures	0.00	0.00	
WSIP - Industrial Program			
Revenues	0.00	32,645.00	0.00%
Expenses	0.00	32,645.00	0.00%
Excess of Revenues over Expenditures	0.00	0.00	
Land Design Program			
Revenues	81,595.84	331,303.00	24.63%
Expenses	75,697.10	331,303.00	22.85%
Excess of Revenues over Expenditures	5,898.74	0.00	
Pressure Regulation Program			
Revenues	0.00	26,960.50	0.00%
Expenses	1,485.00	26,960.50	5.51%
Excess of Revenues over Expenditures	(1,485.00)	0.00	
Rotating Nozzle			
Revenues	0.00	1,750.00	0.00%
Expenses	0.00	1,750.00	0.00%
Excess of Revenues over Expenditures	0.00	0.00	
Dedicated Irrigation Meters Measurement Project (DIMM)			
Revenues	0.00	966,624.00	0.00%
Expenses	0.00	966,624.00	0.00%
Excess of Revenues over Expenditures	0.00	0.00	

**Municipal Water District of Orange County
Revenues and Expenditures Budget Comparative Report
Water Use Efficiency
July 1, 2022 thru August 31, 2022**

	<u>Year to Date Actual</u>	<u>Annual Budget</u>	<u>% Used</u>
Total WUE Projects			
Revenues	678,577.81	8,545,274.01	7.94%
Expenses	<u>921,705.32</u>	<u>8,545,274.01</u>	<u>10.79%</u>
Excess of Revenues over Expenditures	(243,127.51)	0.00	
 WEROC			
Revenues	319,032.72	565,941.00	56.37%
Expenses	<u>206,738.43</u>	<u>565,941.00</u>	<u>36.53%</u>
Excess of Revenues over Expenditures	112,294.29	0.00	

Municipal Water District of Orange County
Individual Charges Disclosure
For the period of 7/1/2021 - 6/30/2022

ITEM 4

POSITION:	VENDOR:	EVENT:	ITEM:	AMOUNT
Director	Southwest Airlines	Association of California Water Agencies conference airfare 5/2 and 5/5/2022	Travel & Accommodations	\$ 262.96
Director Total:				\$ 262.96
Director	Old Homestead Steakhouse	Colorado River water Users Association conference meal 12/14/2021	Travel & Accommodations	\$ 142.00
Director Total:				\$ 142.00
Director	Mileage	Colorado River water Users Association conference mileage 12/13 and 12/16/2021 Las Vegas, NV-Roundtrip	Mileage	\$ 288.96
Director Total:				\$ 288.96
General Manager	Old Homestead Steakhouse	Colorado River water Users Association conference meal 12/14/2021	Travel & Accommodations	\$ 104.08
General Manager Total:				\$ 104.08
Public Affairs Manager	Amazon	Tablecloths for City of Westminster Pocket Park Press conference 3/28/2022	Miscellaneous	\$ 114.33
Public Affairs Manager Total:				\$ 114.33
Water Loss Control Programs Supervisor	American Water Works Association California-Nevada Section	Cross-connection Control Specialist 7/1/2021	Certification	\$ 100.00
Water Loss Control Programs Supervisor Total:				\$ 100.00
Executive Assistant	Costco	Office chair for home office use 7/24/2021	Office furniture	\$ 150.00
Executive Assistant Total:				\$ 150.00
Senior Accountant	Amazon	High Yield Toner Cartridge for home office use 6/15/2021	Office supplies	\$ 121.20
Senior Accountant Total:				\$ 121.20
Director of Emergency Management	Town and Country Resort	California Emergency Services Association conference accommodations 5/2-5/4/2022	Travel & Accommodations	\$ 639.61
Director of Emergency Management Total:				\$ 639.61
Senior Financial Analyst/Database Analyst	Fiverr	Software setup and debugging for FORTECH website migration to new server 11/11/2021	Outside Consulting Services	\$ 2,110.00
Senior Financial Analyst/Database Analyst Total:				\$ 2,110.00
Water Loss Control Technician	Santiago Canyon College	Certificate in Water Utility Science; Pumps and Pumping course Orange, CA: 2/8-6/6/2021	Tuition	\$ 164.00
Water Loss Control Technician Total:				\$ 164.00
Water Loss Control Technician	Reimbursement	Business related expense 1/9/2022	Miscellaneous	\$ 150.00
Water Loss Control Technician Total:				\$ 150.00

Grand Total \$ 4,347.14
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INFORMATION ITEM

October 12, 2022

TO: Administration & Finance Committee
(Directors Seckel, Thomas, Dick)

FROM: Robert Hunter, General Manager

Staff Contact: Hilary Chumpitazi

SUBJECT: CalPERS Annual Valuation Report as of June 30, 2021

STAFF RECOMMENDATION

Staff recommends the Administration & Finance Committee receive and file the CalPERS Annual Valuation Report

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

DETAILED REPORT

MWDOC received its CalPERS Annual Valuation Reports as of June 30, 2021 and staff attended two webinars to go over the details of the report and any changes. The key components of the reports are as follows:

Miscellaneous Plan (Classic)

- Page 4 of the report shows MWDOC's Normal Cost Rate at 10.87% for July 1, 2022 and effective July 1, 2023 it will be 12.47%. Employees continue to contribute 7%, which brings the total obligation to 17.87% and 19.47%, respectively.
 - The District pays the Required Employer Contribution via the Annual Prepayment Option, which saved the District \$7,488.96 for FY 2022-23.
- Page 6 shows the plan's funded status and as of June 30, 2021, the District is 89.7% funded with an Unfunded Accrued Liability (UAL) of \$1,711,377. If we subtract the balance as of June 30, 2022 of our Section 115 Trust for pension of \$847,653 we have a UAL of \$863,724, which is, 94.8% funded.

Budgeted (Y/N): Y	Budgeted amount: \$36,000	Core X_	Choice __
Action item amount: \$29,800		Line item: 13-2000-7040	
Fiscal Impact (explain if unbudgeted):			

- Although this looks like we are almost fully funded, the CalPERS numbers are from a 21.3% investment gain in 2021, which was lost in 2022. The recommendation from the actuaries is to keep everything the same because our Funded Ratio will go back down.
- Also on page 6 is the projected employer contributions which do not reflect the FY 2021-22 investment loss

PEPRA Plan

- Page 4 of the report shows MWDOC's Normal Cost Rate at 7.47% and the Plan's Employee Contribution Rate is 6.75% for July 1, 2022. Effective July 1, 2023 the Normal cost rate will be 7.68% and the Employee Contribution Rate will increase to 7.75%.
 - There is no Required Employer Contribution because the plan is fully funded due to the 21.3% investment increase
- Page 6 shows the plan's funded status and as of June 30, 2021, the District is 104.0% funded with an Unfunded Accrued Liability (UAL) of (\$55,783). We anticipate this to revert closer to the June 30, 2020 numbers for FY 2022-23.
 - There are no Projected Employer Contributions at this time
- The remainder of this report is similar to the above Miscellaneous Plan

Economic Assumption Changes effecting FY 2023-24 rates

- The CalPERS Funding Risk Management Policy triggered a reduction of the Discount Rate from 7% to 6.8%
- Lower discount rates result in higher accrued liabilities and normal costs
- Price Inflation Rate adjusted from 2.5% to 2.3%
- Payroll Growth adjusted from 2.75% to 2.8%

(The above can be found on page 9)

The amortization schedules of this report are to assist those with very large liabilities in forecasting their payments and cashflow.

FY 2022-23 is the 5th year the District has contributed \$207,000 to our Pension 115 Trust.



California Public Employees' Retirement System

Actuarial Office

400 Q Street, Sacramento, CA 95811 | Phone: (916) 795-3000 | Fax: (916) 795-2744

888 CalPERS (or 888-225-7377) | TTY: (877) 249-7442 | www.calpers.ca.gov

July 2022

**Miscellaneous Plan of the Municipal Water District of Orange County (CalPERS ID: 6497938438)
Annual Valuation Report as of June 30, 2021**

Dear Employer,

Attached to this letter, you will find the June 30, 2021 actuarial valuation report for the rate plan noted above. **Provided in this report is the determination of the minimum required employer contributions for fiscal year (FY) 2023-24.** In addition, the report contains important information regarding the current financial status of the plan as well as projections and risk measures to aid in planning for the future.

Because this plan is in a risk pool, the following valuation report has been separated into two sections:

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2021.

Section 2 can be found on the CalPERS website (www.calpers.ca.gov). From the home page, go to "Forms & Publications" and select "View All". In the search box, enter "Risk Pool" and from the results list download the Miscellaneous Risk Pool Actuarial Valuation Report for June 30, 2021.

Your June 30, 2021 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. The plan actuary whose signature is in the Actuarial Certification is available to discuss.

Actuarial valuations are based on assumptions regarding future plan experience including investment return and payroll growth, eligibility for the types of benefits provided, and longevity among retirees. The CalPERS Board of Administration (board) adopts these assumptions after considering the advice of CalPERS actuarial and investment teams and other professionals. Each actuarial valuation reflects all prior differences between actual and assumed experience and adjusts the contribution requirements as needed. This valuation is based on an investment return assumption of 6.8%, which was adopted by the board in November 2021. Other assumptions used in this report are those recommended in the CalPERS Experience Study and Review of Actuarial Assumptions report from November 2021.

Required Contribution

The table below shows the minimum required employer contributions for FY 2023-24 along with estimates of the required contributions for FY 2024-25. Employee contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The required employer contributions in this report do not reflect any cost sharing arrangement between the agency and the employees.**

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability
2023-24	12.47%	\$231,436
<i>Projected Results</i>		
2024-25	12.5%	\$219,000

The actual investment return for FY 2021-22 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 6.8%. ***To the extent the actual investment return for FY 2021-22 differs from 6.8%, the actual contribution requirements for FY 2024-25 will differ from those shown above.*** For additional details regarding the assumptions and methods used for these projections, please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This section also contains projected required contributions through FY 2028-29.

Changes from Previous Year's Valuation

On July 12, 2021, CalPERS reported a preliminary 21.3% net return on investments for FY 2020-21. Since the return exceeded the 7.00% discount rate sufficiently, the CalPERS Funding Risk Mitigation policy allows CalPERS to use a portion of the investment gain to offset the cost of reducing the expected volatility of future investment returns. Based on the thresholds specified in the policy, the excess return of 14.3% prescribes a reduction in investment volatility that corresponds to a reduction in the discount rate of 0.20%, from 7.00% to 6.80%.

On November 17, 2021, the board adopted new actuarial assumptions based on the recommendations in the November 2021 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases, and inflation assumption for public agencies. These new assumptions are incorporated in this actuarial valuation and will impact the required contribution for FY 2023-24. In addition, the board adopted a new strategic asset allocation as part of its Asset Liability Management process. The new asset allocation along with the new capital market assumptions and economic assumptions support a discount rate of 6.80%. This includes a reduction in the price inflation assumption from 2.50% to 2.30%.

Besides the above noted changes, there may also be changes specific to the plan such as contract amendments and funding changes.

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A of the Section 2 report, "Actuarial Methods and Assumptions."

Questions

We understand that you might have questions about these results, and the plan actuary whose signature is on the valuation report is available to discuss. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or (888-225-7377).

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Terando", with a stylized flourish at the end.

SCOTT TERANDO, ASA, EA, MAAA, FCA, CFA
Chief Actuary



**Actuarial Valuation
as of June 30, 2021**

**for the
Miscellaneous Plan
of the
Municipal Water District of Orange County
(CalPERS ID: 6497938438)**

**Required Contributions
for Fiscal Year
July 1, 2023 - June 30, 2024**

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Section 1 – Plan Specific Information

Section 2 – Risk Pool Actuarial Valuation Information

Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Plan Specific Information for the Miscellaneous Plan of the Municipal Water District of Orange County

**(CalPERS ID: 6497938438)
(Rate Plan ID: 4054)**

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Actuarial Certification

To the best of our knowledge, this report, comprising of Sections 1 and 2, is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the Miscellaneous Plan of the Municipal Water District of Orange County and satisfies the actuarial valuation requirements of Government Code section 7504. This valuation is based on the member and financial data as of June 30, 2021 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. Section 1 of this report is based on the member and financial data for Municipal Water District of Orange County, while Section 2 is based on the corresponding information for all agencies participating in the Miscellaneous Risk Pool to which the plan belongs.

As set forth in Section 2 of this report, the pool actuaries have certified that, in their opinion, the valuation of the Miscellaneous Risk Pool has been performed in accordance with generally accepted actuarial principles consistent with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for the risk pool as of the date of this valuation and as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the rate plan, it is my opinion as the plan actuary that the Unfunded Accrued Liability amortization bases as of June 30, 2021 and employer contribution as of July 1, 2023 have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary who satisfies the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States with regard to pensions.

A handwritten signature in black ink, appearing to read "Kerry J. Worgan", with a stylized flourish at the end.

KERRY J. WORGAN, MAAA, FSA, FCIA
Supervising Pension Actuary, CalPERS

Highlights and Executive Summary

- **Introduction**
- **Purpose of Section 1**
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Introduction

This report presents the results of the June 30, 2021 actuarial valuation of the Miscellaneous Plan of the Municipal Water District of Orange County of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for (FY) 2023-24.

Purpose of Section 1

This Section 1 report for the Miscellaneous Plan of the Municipal Water District of Orange County of CalPERS was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2021;
- Determine the minimum required employer contribution for this plan for the FY July 1, 2023 through June 30, 2024; and
- Provide actuarial information as of June 30, 2021 to the CalPERS Board of Administration (board) and other interested parties.

The pension funding information presented in this report should not be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available on the CalPERS website (www.calpers.ca.gov).

The measurements shown in this actuarial valuation may not be applicable for other purposes. The agency should contact the plan actuary before disseminating any portion of this report for any reason that is not explicitly described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in actuarial policies; changes in plan provisions or applicable law; and differences between the required contributions determined by the valuation and the actual contributions made by the agency.

Assessment and Disclosure of Risk

This report includes the following risk disclosures consistent with the recommendations of Actuarial Standards of Practice No. 51 and recommended by the California Actuarial Advisory Panel (CAAP) in the Model Disclosure Elements document:

- A "Scenario Test," projecting future results under different investment income returns.
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 5.8% and 7.8%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current post-retirement mortality assumptions adopted in 2021.
- Plan maturity measures indicating how sensitive a plan may be to the risks noted above.

Required Contributions

Required Employer Contributions	Fiscal Year 2023-24
Employer Normal Cost Rate	12.47%
Plus	
Required Payment on Amortization Bases ¹	\$231,436
Paid either as	
1) Monthly Payment	\$19,286.33
Or	
2) Annual Prepayment Option*	\$223,947
<i>The total minimum required employer contribution is the sum of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll and paid as payroll is reported) plus the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly (1) or prepaid annually (2) in dollars).</i>	
<i>* Only the UAL portion of the employer contribution can be prepaid (which must be received in full no later than July 31).</i>	

	Fiscal Year 2022-23	Fiscal Year 2023-24
Development of Normal Cost as a Percentage of Payroll		
Base Total Normal Cost for Formula	17.24%	18.76%
Surcharge for Class 1 Benefits ²		
a) FAC 1	0.55%	0.63%
Phase out of Normal Cost Difference ³	0.00%	0.00%
Plan's Total Normal Cost	17.79%	19.39%
Formula's Expected Employee Contribution Rate	6.92%	6.92%
Employer Normal Cost Rate	10.87%	12.47%

¹ The required payment on amortization bases does not take into account any additional discretionary payment made after April 29, 2022.

² Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

³ The normal cost change is phased out over a five-year period in accordance with the CalPERS contribution allocation policy.

Additional Discretionary Employer Contributions

The minimum required employer contribution towards the Unfunded Accrued Liability (UAL) for this rate plan for the 2023-24 FY is \$231,436. CalPERS allows agencies to make additional discretionary payments (ADPs) at any time and in any amount. These optional payments serve to reduce the UAL and future required contributions and can result in significant long-term savings. Agencies can also use ADPs to stabilize annual contributions as a fixed dollar amount, percent of payroll or percent of revenue.

Provided below are select ADP options for consideration. Making such an ADP during FY 2023-24 does not require an ADP be made in any future year, nor does it change the remaining amortization period of any portion of unfunded liability. For information on permanent changes to amortization periods, see the "Amortization Schedule and Alternatives" section of the report.

Agencies considering making an ADP should contact CalPERS for additional information.

Minimum Required Employer Contribution for Fiscal Year 2023-24

Estimated Normal Cost	Minimum UAL Payment	ADP	Total UAL Contribution	Estimated Total Contribution
\$347,607	\$231,436	\$0	\$231,436	\$579,043

Alternative Fiscal Year 2023-24 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP ¹	Total UAL Contribution	Estimated Total Contribution
5 years	\$347,607	\$231,436	\$132,438	\$363,874	\$711,481

¹ The ADP amounts are assumed to be made in the middle of the fiscal year. A payment made earlier or later in the fiscal year would have to be less or more than the amount shown to have the same effect on the UAL amortization.

Note that the calculations above are based on the projected Unfunded Accrued Liability as of June 30, 2023 as determined in the June 30, 2021 actuarial valuation. New unfunded liabilities can emerge in future years due to assumption or method changes, changes in plan provisions, and actuarial experience different than assumed. Making an ADP illustrated above for the indicated number of years will not result in a plan that is exactly 100% funded in the indicated number of years. Valuation results will vary from one year to the next and can diverge significantly from projections over a period of several years.

Plan's Funded Status

	June 30, 2020	June 30, 2021
1. Present Value of Projected Benefits (PVB)	\$18,060,126	\$20,657,967
2. Entry Age Accrued Liability (AL)	14,522,790	16,610,967
3. Plan's Market Value of Assets (MVA)	11,309,200	14,899,590
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	3,213,590	1,711,377
5. Funded Ratio [(3) / (2)]	77.9%	89.7%

The UAL and funded ratio are assessments of the need for future employer contributions based on the actuarial cost method used to fund the plan. The UAL is the present value of future employer contributions for service that has already been earned and is in addition to future normal cost contributions for active members. The funded ratio, on the other hand, is a relative measure of funded status that allows for comparison between plans of different sizes. For measures of funded status that are appropriate for assessing the sufficiency of plan assets to cover estimated termination liabilities, please see "Hypothetical Termination Liability" in the "Risk Analysis" section.

Projected Employer Contributions

The table below shows the required and projected employer contributions (before cost sharing) for the next six fiscal years. The projection assumes that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period. In particular, the investment return beginning with FY 2021-22 is assumed to be 6.80% per year, net of investment and administrative expenses. Actual contribution rates during this projection period could be significantly higher or lower than the projection shown below. Future contribution requirements may differ significantly from those shown below. The actual long-term cost of the plan will depend on the actual benefits and expenses paid and the actual investment experience of the fund.

	Required Contribution	Projected Future Employer Contributions (Assumes 6.80% Return for Fiscal Year 2021-22 and Beyond)				
Fiscal Year	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
	Rate Plan 4054 Results					
Normal Cost %	12.47%	12.5%	12.5%	12.5%	12.5%	12.5%
UAL Payment	\$231,436	\$219,000	\$197,000	\$175,000	\$146,000	\$153,000

For some sources of UAL, the change in UAL is amortized using a 5-year ramp up. For more information, please see "Amortization of the Unfunded Actuarial Accrued Liability" under "Actuarial Methods" in Appendix A of the Section 2 Report. This method phases in the impact of the change in UAL over a 5-year period in order to reduce employer cost volatility from year to year. As a result of this methodology, dramatic changes in the required employer contributions in any one year are less likely. However, required contributions can change gradually and significantly over the next five years. In years when there is a large increase in UAL, the relatively small amortization payments during the ramp up period could result in a funded ratio that is projected to decrease initially while the contribution impact of the increase in the UAL is phased in.

For projected contributions under alternate investment return scenarios, please see the "Future Investment Return Scenarios" in the "Risk Analysis" section.

Our online pension plan projection tool, Pension Outlook, is available in the Employers section of the CalPERS website. Pension Outlook can help plan and budget pension costs under various scenarios.

Other Pooled Miscellaneous Risk Pool Rate Plans

All of the results presented in this Section 1 report, except those shown below, correspond to rate plan 4054. In many cases, employers have additional rate plans within the same risk pool. For cost analysis and budgeting it is useful to consider contributions for these rate plans as a whole rather than individually. The estimated contribution amounts and rates for all of the employer's rate plans in the Miscellaneous Risk Pool are shown below and assume that the payroll for each rate plan will grow according to the overall payroll growth assumption of 2.80% per year for three years.

	Fiscal Year 2022-23	Fiscal Year 2023-24
Estimated Combined Employer Contributions for all Pooled Miscellaneous Rate Plans		
Projected Payroll for the Contribution Year	\$4,419,188	\$4,487,133
Estimated Employer Normal Cost	\$428,232	\$478,135
Required Payment on Amortization Bases	\$255,889	\$231,436
Estimated Total Employer Contributions	\$684,121	\$709,571
Estimated Total Employer Contribution Rate (illustrative only)	15.48%	15.81%

Cost

Actuarial Determination of Plan Cost

Contributions to fund the plan are comprised of two components:

- Normal Cost, expressed as a percentage of total active payroll
- Amortization of the Unfunded Accrued Liability (UAL), expressed as a dollar amount

For fiscal years prior to 2016-17, the Amortization of UAL component was expressed as a percentage of total active payroll. Starting with FY 2016-17, the Amortization of UAL component was expressed as a dollar amount and invoiced on a monthly basis. There continues to be an option to prepay this amount during July of each fiscal year.

The Normal Cost component is expressed as a percentage of active payroll with employer and employee contributions payable as part of the regular payroll reporting process.

The determination of both components requires complex actuarial calculations. The calculations are based on a set of actuarial assumptions which can be divided into two categories:

- Demographic assumptions (e.g., mortality rates, retirement rates, employment termination rates, disability rates)
- Economic assumptions (e.g., future investment earnings, inflation, salary growth rates)

These assumptions reflect CalPERS' best estimate of future experience of the plan and are long term in nature. We recognize that all assumptions will not be realized in any given year. For example, the investment earnings at CalPERS have averaged 6.9% over the 20 years ending June 30, 2021, yet individual fiscal year returns have ranged from -23.6% to +21.3%. In addition, CalPERS reviews all actuarial assumptions by conducting in-depth experience studies every four years, with the most recent experience study completed in 2021.

Changes Since the Prior Year's Valuation

Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation following the effective date of the legislation. Voluntary benefit changes by plan amendment are generally included in the first valuation that is prepared after the amendment becomes effective, even if the valuation date is prior to the effective date of the amendment.

This valuation generally reflects plan changes by amendments effective before the date of the report. Please refer to the "Plan's Major Benefit Options" and Appendix B of the Section 2 Report for a summary of the plan provisions used in this valuation.

Actuarial Methods and Assumptions

On November 17, 2021, the board adopted new actuarial assumptions based on the recommendations in the 2021 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases, and inflation assumption for Public Agencies. These new assumptions are incorporated in this actuarial valuation and will impact the required contribution for FY 2023-24. In addition, the board adopted a new asset portfolio as part of its Asset Liability Management process. The new asset mix supports a 6.80% discount rate, which reflects a change in the price inflation assumption to 2.30%.

Subsequent Events

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of June 30, 2021. Changes subsequent to that date are not reflected. Investment returns below the assumed rate of return may increase future required contributions while investment returns above the assumed rate of return may decrease future required contributions.

The projected employer contributions on Page 6 are calculated under the assumption that the discount rate remains at 6.8% going forward and that the realized rate of return on assets for FY 2021-22 is 6.8%.

This actuarial valuation report reflects statutory changes, regulatory changes and board actions through January 2022. Any subsequent changes or actions are not reflected.

Assets and Liabilities

- **Breakdown of Entry Age Accrued Liability**
- **Allocation of Plan's Share of Pool's Experience/Assumption Change**
- **Development of Plan's Share of Pool's Market Value of Assets**
- **Schedule of Plan's Amortization Bases**
- **Amortization Schedule and Alternatives**
- **Employer Contribution History**
- **Funding History**

Breakdown of Entry Age Accrued Liability

Active Members	\$8,193,550
Transferred Members	1,325,188
Terminated Members	778,159
Members and Beneficiaries Receiving Payments	<u>6,314,070</u>
Total	\$16,610,967

Allocation of Plan's Share of Pool's Experience/Assumption Change

It is the policy of CalPERS to ensure equity within the risk pools by allocating the pool's experience gains/losses and assumption changes in a manner that treats each employer equitably and maintains benefit security for the members of the System while minimizing substantial variations in employer contributions. The Pool's experience gains/losses and impact of assumption/method changes is allocated to the plan as follows:

1. Plan's Accrued Liability	\$16,610,967
2. Projected UAL balance at 6/30/2021	3,261,828
3. Pool's Accrued Liability ¹	20,794,529,023
4. Sum of Pool's Individual Plan UAL Balances at 6/30/2021 ¹	4,597,734,264
5. Pool's 2020/21 Investment (Gain)/Loss ¹	(2,338,185,055)
6. Pool's 2020/21 Non-Investment (Gain)/Loss ¹	(84,077,623)
7. Plan's Share of Pool's Investment (Gain)/Loss: $[(1) - (2)] \div [(3) - (4)] \times (5)$	(1,927,095)
8. Plan's Share of Pool's Non-Investment (Gain)/Loss: $(1) \div (3) \times (6)$	(67,162)
9. Plan's New (Gain)/Loss as of 6/30/2021: $(7) + (8)$	(1,994,257)
10. Increase in Pool's Accrued Liability due to Change in Assumptions ¹	60,407,898
11. Plan's Share of Pool's Change in Assumptions: $(1) \div (3) \times (10)$	48,255
12. Increase in Pool's Accrued Liability due to Funding Risk Mitigation ¹	495,172,731
13. Plan's Share of Pool's Change due to Funding Risk Mitigation: $(1) \div (3) \times (12)$	395,551
14. Offset due to Funding Risk Mitigation	(433,136)
15. Plan's Net Investment (Gain): $(7) - (14)$	(1,493,959)

¹ Does not include plans that transferred to Pool on the valuation date.

Development of the Plan's Share of Pool's Market Value of Assets

16. Plan's UAL: $(2) + (9) + (11) + (13)$	\$1,711,377
17. Plan's Share of Pool's MVA: $(1) - (16)$	\$14,899,590

Schedule of Plan's Amortization Bases

Note that there is a two-year lag between the valuation date and the start of the contribution fiscal year.

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2021.
- The required employer contributions determined by the valuation are for the fiscal year beginning two years after the valuation date: FY 2023-24.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and the need to provide public agencies with their required employer contribution well in advance of the start of the fiscal year.

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the expected payment on the UAL for the fiscal year and adjusting for interest. The expected payment for the first fiscal year is determined by the actuarial valuation two years ago and the contribution for the second year is from the actuarial valuation one year ago. Additional discretionary payments are reflected in the Expected Payments column in the fiscal year they were made by the agency.

Reason for Base	Date Est.	Ramp Level	Ramp Shape	Escalation Rate	Amort. Period	Balance 6/30/21	Expected Payment 2021-22	Balance 6/30/22	Expected Payment 2022-23	Balance 6/30/23	Minimum Required Payment 2023-24
Investment (Gain)/Loss	6/30/13	100%	Up/Down	2.80%	22	986,950	68,805	982,957	70,697	976,737	70,894
Non-Investment (Gain)/Loss	6/30/13	100%	Up/Down	2.80%	22	(9,488)	(661)	(9,450)	(680)	(9,390)	(682)
Share of Pre-2013 Pool UAL	6/30/13	No Ramp		2.80%	14	539,413	46,447	528,093	47,724	514,683	48,120
Assumption Change	6/30/14	100%	Up/Down	2.80%	13	474,783	47,742	457,730	49,055	438,160	49,599
Investment (Gain)/Loss	6/30/14	100%	Up/Down	2.80%	23	(816,897)	(55,416)	(815,177)	(56,940)	(811,765)	(57,050)
Non-Investment (Gain)/Loss	6/30/14	100%	Up/Down	2.80%	23	866	59	864	60	861	61
Investment (Gain)/Loss	6/30/15	100%	Up/Down	2.80%	24	514,166	34,000	513,992	34,935	512,840	34,973
Non-Investment (Gain)/Loss	6/30/15	100%	Up/Down	2.80%	24	(40,313)	(2,666)	(40,299)	(2,739)	(40,209)	(2,742)
Assumption Change	6/30/16	100%	Up/Down	2.80%	15	208,759	15,361	207,080	19,729	200,773	19,910
Investment (Gain)/Loss	6/30/16	100%	Up/Down	2.80%	25	687,215	35,944	696,800	46,166	696,473	46,178
Non-Investment (Gain)/Loss	6/30/16	100%	Up/Down	2.80%	25	(81,062)	(4,240)	(82,192)	(5,446)	(82,153)	(5,447)
Assumption Change	6/30/17	100%	Up/Down	2.80%	16	262,942	14,316	266,027	19,613	263,848	24,719
Investment (Gain)/Loss	6/30/17	100%	Up/Down	2.80%	26	(377,457)	(14,834)	(387,794)	(20,322)	(393,162)	(25,390)
Non-Investment (Gain)/Loss	6/30/17	100%	Up/Down	2.80%	26	(18,400)	(723)	(18,904)	(991)	(19,165)	(1,238)
Assumption Change	6/30/18	80%	Up/Down	2.80%	17	428,781	15,636	441,779	24,098	446,916	32,361
Investment (Gain)/Loss	6/30/18	80%	Up/Down	2.80%	27	(122,697)	(3,261)	(127,670)	(5,027)	(131,156)	(6,692)
Method Change	6/30/18	80%	Up/Down	2.80%	17	113,602	4,143	117,045	6,385	118,406	8,574
Non-Investment (Gain)/Loss	6/30/18	80%	Up/Down	2.80%	27	57,357	1,525	59,681	2,350	61,311	3,128
Investment (Gain)/Loss	6/30/19	60%	Up Only	0.00%	18	59,550	1,302	62,254	2,604	63,796	3,836
Non-Investment (Gain)/Loss	6/30/19	No Ramp		0.00%	18	59,304	5,412	57,744	5,412	56,078	5,317

Schedule of Plan's Amortization Bases (Continued)

Reason for Base	Date Est.	Ramp Level	Ramp Shape	Escala- tion Rate	Amort. Period	Balance 6/30/21	Expected Payment 2021-22	Balance 6/30/22	Expected Payment 2022-23	Balance 6/30/23	Minimum Required Payment 2023-24
Investment (Gain)/Loss	6/30/20	40%	Up Only	0.00%	19	285,836	0	305,273	6,687	319,121	13,118
Non-Investment (Gain)/Loss	6/30/20	No Ramp	No Ramp	0.00%	19	48,618	0	51,924	4,747	50,549	4,662
Assumption Change	6/30/21	No Ramp	No Ramp	0.00%	20	48,255	(19,481)	71,669	(20,026)	97,238	8,744
Net Investment (Gain)	6/30/21	20%	Up Only	0.00%	20	(1,493,959)	0	(1,595,548)	0	(1,704,045)	(36,628)
Non-Investment (Gain)/Loss	6/30/21	No Ramp	No Ramp	0.00%	20	(67,162)	0	(71,729)	0	(76,607)	(6,889)
Risk Mitigation	6/30/21	No Ramp	No Ramp	0.00%	1	395,551	(19,791)	442,901	(20,346)	494,045	510,566
Risk Mitigation Offset	6/30/21	No Ramp	No Ramp	0.00%	1	(433,136)	0	(462,589)	0	(494,045)	(510,566)
Total						1,711,377	169,619	1,652,461	207,745	1,550,138	231,436

The (gain)/loss bases are the plan's allocated share of the risk pool's (gain)/loss for the fiscal year as disclosed in "Allocation of Plan's Share of Pool's Experience/Assumption Change" earlier in this section. These (gain)/loss bases will be amortized in accordance with the CalPERS amortization policy in effect at the time the base was established.

Amortization Schedule and Alternatives

The amortization schedule on the previous page(s) shows the minimum contributions required according to the CalPERS amortization policy. Many agencies have expressed a desire for a more stable pattern of payments or have indicated interest in paying off the unfunded accrued liabilities more quickly than required. As such, we have provided alternative amortization schedules to help analyze the current amortization schedule and illustrate the potential savings of accelerating unfunded liability payments.

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternative "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. To initiate a Fresh Start, please contact the plan actuary.

The Current Amortization Schedule typically contains both positive and negative bases. Positive bases result from plan changes, assumption changes, method changes or plan experience that increase unfunded liability. Negative bases result from plan changes, assumption changes, method changes, or plan experience that decrease unfunded liability. The combination of positive and negative bases within an amortization schedule can result in unusual or problematic circumstances in future years, such as:

- When a negative payment would be required on a positive unfunded actuarial liability; or
- When the payment would completely amortize the total unfunded liability in a very short time period, and results in a large change in the employer contribution requirement.

In any year when one of the above scenarios occurs, the actuary will consider corrective action such as replacing the existing unfunded liability bases with a single "fresh start" base and amortizing it over an appropriate period.

The Current Amortization Schedule on the following page may appear to show that, based on the current amortization bases, one of the above scenarios will occur at some point in the future. It is impossible to know today whether such a scenario will in fact arise since there will be additional bases added to the amortization schedule in each future year. Should such a scenario arise in any future year, the actuary will take appropriate action based on guidelines in the CalPERS amortization policy.

Amortization Schedule and Alternatives (continued)

Date	<u>Current Amortization Schedule</u>		<u>Alternate Schedules</u>			
	Balance	Payment	10 Year Amortization		5 Year Amortization	
			Balance	Payment	Balance	Payment
6/30/2023	1,550,138	231,436	1,550,138	211,593	1,550,138	363,874
6/30/2024	1,416,372	218,951	1,436,879	211,593	1,279,505	363,874
6/30/2025	1,286,413	197,318	1,315,918	211,593	990,469	363,873
6/30/2026	1,169,971	174,607	1,186,732	211,593	681,780	363,874
6/30/2027	1,069,083	145,542	1,048,761	211,593	352,099	363,873
6/30/2028	991,370	153,314	901,408	211,593		
6/30/2029	900,344	161,311	744,035	211,593		
6/30/2030	794,863	169,521	575,961	211,594		
6/30/2031	673,723	177,970	396,456	211,593		
6/30/2032	535,615	173,931	204,746	211,593		
6/30/2033	392,288	169,429				
6/30/2034	243,870	159,035				
6/30/2035	96,100	99,314				
6/30/2036						
6/30/2037						
6/30/2038						
6/30/2039						
6/30/2040						
6/30/2041						
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6/30/2047						
6/30/2048						
6/30/2049						
6/30/2050						
6/30/2051						
6/30/2052						
Total		2,231,679		2,115,931		1,819,368
Interest Paid		681,541		565,793		269,230
Estimated Savings				115,748		412,311

Employer Contribution History

The table below provides a recent history of the required employer contributions for the plan. The amounts are based on the actuarial valuation from two years prior and does not account for prepayments or benefit changes made during a fiscal year. Additional discretionary payments before July 1, 2019 or after June 30, 2021 are not included.

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment (\$)	Additional Discretionary Payments
2016 - 17	8.880%	\$64,364	N/A
2017 - 18	8.921%	83,180	N/A
2018 - 19	9.409%	112,790	N/A
2019 - 20	10.221%	144,402	0
2020 - 21	11.031%	170,837	0
2021 - 22	10.88%	208,891	
2022 - 23	10.87%	248,117	
2023 - 24	12.47%	231,436	

Funding History

The table below shows the recent history of the actuarial accrued liability, share of the pool's market value of assets, unfunded accrued liability, funded ratio, and annual covered payroll.

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll
06/30/2012	\$6,273,252	\$4,841,500	\$1,431,752	77.2%	\$2,664,777
06/30/2013	7,189,485	5,842,865	1,346,620	81.3%	2,378,088
06/30/2014	8,295,329	7,150,851	1,144,478	86.2%	2,274,325
06/30/2015	8,587,815	7,077,429	1,510,386	82.4%	2,090,151
06/30/2016	9,638,398	7,445,211	2,193,187	77.2%	2,170,501
06/30/2017	10,883,341	8,720,332	2,163,009	80.1%	2,346,800
06/30/2018	12,474,635	9,849,234	2,625,401	79.0%	2,352,803
06/30/2019	13,422,370	10,589,127	2,833,243	78.9%	2,481,377
06/30/2020	14,522,790	11,309,200	3,213,590	77.9%	2,660,274
06/30/2021	16,610,967	14,899,590	1,711,377	89.7%	2,565,921

Risk Analysis

- **Future Investment Return Scenarios**
- **Discount Rate Sensitivity**
- **Mortality Rate Sensitivity**
- **Maturity Measures**
- **Maturity Measures History**
- **Hypothetical Termination Liability**

Future Investment Return Scenarios

Analysis using the investment return scenarios from the Asset Liability Management process completed in 2021 was performed to determine the effects of various future investment returns on required employer contributions. The projections below reflect the impact of the CalPERS Funding Risk Mitigation policy. The projections also assume that all other actuarial assumptions will be realized and that no further changes in assumptions, contributions, benefits, or funding will occur.

The first table shows projected contribution requirements if the fund were to earn either 3.0% or 10.8% annually. These alternate investment returns were chosen because 90% of long-term average returns are expected to fall between them over the 20-year period ending June 30, 2041.

Assumed Annual Return FY 2021-22 through 2040-41	Projected Employer Contributions				
	2024-25	2025-26	2026-27	2027-28	2028-29
3.0% (5th percentile)					
Normal Cost Rate	12.5%	12.5%	12.5%	12.5%	12.5%
UAL Contribution	\$233,000	\$239,000	\$260,000	\$289,000	\$370,000
10.8% (95th percentile)					
Normal Cost Rate	12.7%	13.0%	13.2%	13.5%	13.7%
UAL Contribution	\$207,000	\$99,000	\$0	\$0	\$0

Required contributions outside of this range are also possible. In particular, whereas it is unlikely that investment returns will average less than 3.0% or greater than 10.8% over a 20-year period, the likelihood of a single investment return less than 3.0% or greater than 10.8% in any given year is much greater. The following analysis illustrates the effect of an extreme, single year investment return.

The portfolio has an expected volatility (or standard deviation) of 12.0% per year. Accordingly, in any given year there is a 16% probability that the annual return will be -5.2% or less and a 2.5% probability that the annual return will be -17.2% or less. These returns represent one and two standard deviations below the expected return of 6.8%.

The following table shows the effect of a one or two standard deviation investment loss in FY 2021-22 on the FY 2024-25 contribution requirements. Note that a single-year investment gain or loss decreases or increases the required UAL contribution amount incrementally for each of the next five years, not just one, due to the 5-year ramp in the amortization policy. However, the contribution requirements beyond the first year are also impacted by investment returns beyond the first year. Historically, significant downturns in the market are often followed by higher than average returns. Such investment gains would offset the impact of these single year negative returns in years beyond FY 2024-25.

Assumed Annual Return for Fiscal Year 2021-22	Required Employer Contributions	Projected Employer Contributions
	2023-24	2024-25
(17.2)% (2 standard deviation loss)		
Normal Cost Rate	12.47%	12.5%
UAL Contribution	\$231,436	\$307,000
(5.2)% (1 standard deviation loss)		
Normal Cost Rate	12.47%	12.5%
UAL Contribution	\$231,436	\$263,000

- Without investment gains (returns higher than 6.8%) in year FY 2022-23 or later, projected contributions rates would continue to rise over the next four years due to the continued phase-in of the impact of the illustrated investment loss in FY 2021-22.
- The Pension Outlook Tool can be used to model projected contributions for these scenarios beyond FY 2024-25 as well as to model other investment return scenarios.

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.5% and 2.3%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2021 assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 6.8% as well as alternate discount rates of 5.8% and 7.8%. The rates of 5.8% and 7.8% were selected since they illustrate the impact of a 1.0% increase or decrease to the 6.8% assumption.

Sensitivity to the Real Rate of Return Assumption

As of June 30, 2021	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
Discount Rate	5.8%	6.8%	7.8%
Inflation	2.3%	2.3%	2.3%
Real Rate of Return	3.5%	4.5%	5.5%
a) Total Normal Cost	24.38%	19.39%	15.59%
b) Accrued Liability	\$19,021,322	\$16,610,967	\$14,639,964
c) Market Value of Assets	\$14,899,590	\$14,899,590	\$14,899,590
d) Unfunded Liability/(Surplus) [(b) - (c)]	\$4,121,732	\$1,711,377	(\$259,626)
e) Funded Ratio	78.3%	89.7%	101.8%

Sensitivity to the Price Inflation Assumption

As of June 30, 2021	1% Lower Inflation Rate	Current Assumptions	1% Higher Inflation Rate
Discount Rate	5.8%	6.8%	7.8%
Inflation	1.3%	2.3%	3.3%
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	20.35%	19.39%	17.69%
b) Accrued Liability	\$17,203,514	\$16,610,967	\$15,296,105
c) Market Value of Assets	\$14,899,590	\$14,899,590	\$14,899,590
d) Unfunded Liability/(Surplus) [(b) - (c)]	\$2,303,924	\$1,711,377	\$396,515
e) Funded Ratio	86.6%	89.7%	97.4%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2021 plan costs and funded status under two different longevity scenarios, namely assuming post-retirement rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2021. This type of analysis highlights the impact on the plan of improving or worsening mortality over the long-term.

As of June 30, 2021	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	19.72%	19.39%	19.08%
b) Accrued Liability	\$16,972,011	\$16,610,967	\$16,279,419
c) Market Value of Assets	\$14,899,590	\$14,899,590	\$14,899,590
d) Unfunded Liability/(Surplus) [(b) - (c)]	\$2,072,421	\$1,711,377	\$1,379,829
e) Funded Ratio	87.8%	89.7%	91.5%

Maturity Measures

As pension plans mature they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk is important in understanding how the pension plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions. Since it is the employer that bears the risk, it is appropriate to perform this analysis on a pension plan level considering all rate plans. The following measures are for one rate plan only.

One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio starts increasing. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	June 30, 2020	June 30, 2021
1. Retired Accrued Liability	\$4,178,603	\$6,314,070
2. Total Accrued Liability	14,522,790	16,610,967
3. Ratio of Retiree AL to Total AL [(1) / (2)]	0.29	0.38

Another measure of maturity level of CalPERS and its plans is to look at the ratio of actives to retirees, also called the support ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures and members retire, the ratio declines. A mature plan will often have a ratio near or below one.

To calculate the support ratio for the rate plan, retirees and beneficiaries receiving a continuance are each counted as one, even though they may have only worked a portion of their careers as an active member of this rate plan. For this reason, the support ratio, while intuitive, may be less informative than the ratio of retiree liability to total accrued liability above. For comparison, the support ratio for all CalPERS public agency plans is 0.82 and is calculated consistently with how it is for the individual rate plan. Note that to calculate the support ratio for all public agency plans, a retiree with service from more than one CalPERS agency is counted as a retiree more than once.

Support Ratio	June 30, 2020	June 30, 2021
1. Number of Actives	20	19
2. Number of Retirees	11	15
3. Support Ratio [(1) / (2)]	1.82	1.27

Maturity Measures (Continued)

The actuarial calculations supplied in this communication are based on various assumptions about long-term demographic and economic behavior. Unless these assumptions (e.g., terminations, deaths, disabilities, retirements, salary growth, investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise required employer contributions from one year to the next. Therefore, employer contributions will inevitably fluctuate, especially due to the ups and downs of investment returns.

Asset Volatility Ratio

Shown in the table below is the asset volatility ratio (AVR), which is the ratio of market value of assets to payroll. Plans that have higher AVR experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with an asset-to-payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility than a plan with an asset-to-payroll ratio of 4. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures.

Liability Volatility Ratio

Also shown in the table below is the liability volatility ratio (LVR), which is the ratio of accrued liability to payroll. Plans that have a higher LVR experience more volatile employer contributions (as a percentage of payroll) due to changes in liability. For example, a plan with LVR ratio of 8 is expected to have twice the contribution volatility of a plan with LVR of 4. It should be noted that this ratio indicates a longer-term potential for contribution volatility, since the AVR, described above, will tend to move closer to the LVR as the funded ratio approaches 100%.

Contribution Volatility	June 30, 2020	June 30, 2021
1. Market Value of Assets	\$11,309,200	\$14,899,590
2. Payroll	2,660,274	2,565,921
3. Asset Volatility Ratio (AVR) [(1) / (2)]	4.3	5.8
4. Accrued Liability	\$14,522,790	\$16,610,967
5. Liability Volatility Ratio (LVR) [(4) / (2)]	5.5	6.5

Maturity Measures History

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2017	0.30	2.33	3.7	4.6
06/30/2018	0.31	2.00	4.2	5.3
06/30/2019	0.28	2.00	4.3	5.4
06/30/2020	0.29	1.82	4.3	5.5
06/30/2021	0.38	1.27	5.8	6.5

Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2021. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees.

A more conservative investment policy and asset allocation strategy was adopted by the board for the Terminated Agency Pool. The Terminated Agency Pool has limited funding sources since no future employer contributions will be made. Therefore, expected benefit payments are secured by risk-free assets and benefit security for members is increased while limiting the funding risk. However, this asset allocation has a lower expected rate of return than the PERF and consequently, a lower discount rate is assumed. The lower discount rate for the Terminated Agency Pool results in higher liabilities for terminated plans.

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 19-month period from 12 months before the valuation date to seven months after.

Market Value of Assets (MVA)	Hypothetical Termination Liability^{1,2} at 1.00%	Funded Ratio	Unfunded Termination Liability at 1.00%	Hypothetical Termination Liability^{1,2} at 2.25%	Funded Ratio	Unfunded Termination Liability at 2.25%
\$14,899,590	\$39,545,858	37.7%	\$24,646,268	\$32,107,244	46.4%	\$17,207,654

¹ The hypothetical liabilities calculated above include a 5% contingency load. The contingency load and other actuarial assumptions can be found in Appendix A.

² The discount rate used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.00% on June 30, 2021, the valuation date.

In order to terminate the plan, first contact our Pension Contract Services unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow the plan actuary to provide a preliminary termination valuation with a more up-to-date estimate of the plan liabilities. Before beginning this process, please consult with the plan actuary.

Participant Data

The table below shows a summary of the plan's member data upon which this valuation is based:

	June 30, 2020	June 30, 2021
Active Members		
Counts	20	19
Average Attained Age	52.05	51.72
Average Entry Age to Rate Plan	40.73	40.23
Average Years of Credited Service	11.48	11.65
Average Annual Covered Pay	\$133,014	\$135,048
Annual Covered Payroll	\$2,660,274	\$2,565,921
Present Value of Future Payroll	\$19,093,680	\$20,058,658
Transferred Members	13	11
Separated Members	15	15
Retired Members and Beneficiaries		
Counts*	11	15
Average Annual Benefits*	\$34,705	\$35,983

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

* Values include community property settlements.

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- One Year Final Compensation (FAC 1)

Plan's Major Benefit Options

Shown below is a summary of the major optional benefits for which the agency has contracted. A description of principal standard and optional plan provisions is in Section 2.

Member Category	Benefit Group		
	Misc	Misc	Misc
Demographics			
Actives			
Transfers/Separated			
Receiving	Yes	No	
	Yes	No	
	Yes	Yes	
Benefit Provision			
Benefit Formula	2% @ 55		
Social Security Coverage	No		
Full/Modified	Full		
Employee Contribution Rate	7.00%		
Final Average Compensation Period	One Year		
Sick Leave Credit	Yes		
Non-Industrial Disability	Standard		
Industrial Disability	No		
Pre-Retirement Death Benefits			
Optional Settlement 2	Yes		
1959 Survivor Benefit Level	Level 4		
Special	No		
Alternate (firefighters)	No		
Post-Retirement Death Benefits			
Lump Sum	\$500	\$500	
Survivor Allowance (PRSA)	No	No	
COLA	2%	2%	

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Risk Pool Actuarial Valuation Information

**Section 2 may be found on the CalPERS website
(www.calpers.ca.gov) in the Forms and
Publications section**



California Public Employees' Retirement System

Actuarial Office

400 Q Street, Sacramento, CA 95811 | Phone: (916) 795-3000 | Fax: (916) 795-2744

888 CalPERS (or 888-225-7377) | TTY: (877) 249-7442 | www.calpers.ca.gov

July 2022

**PEPRA Miscellaneous Plan of the Municipal Water District of Orange County (CalPERS ID: 6497938438)
Annual Valuation Report as of June 30, 2021**

Dear Employer,

Attached to this letter, you will find the June 30, 2021 actuarial valuation report for the rate plan noted above. **Provided in this report is the determination of the minimum required employer contributions for fiscal year (FY) 2023-24.** In addition, the report contains important information regarding the current financial status of the plan as well as projections and risk measures to aid in planning for the future.

Because this plan is in a risk pool, the following valuation report has been separated into two sections:

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2021.

Section 2 can be found on the CalPERS website (www.calpers.ca.gov). From the home page, go to "Forms & Publications" and select "View All". In the search box, enter "Risk Pool" and from the results list download the Miscellaneous Risk Pool Actuarial Valuation Report for June 30, 2021.

Your June 30, 2021 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. The plan actuary whose signature is in the Actuarial Certification is available to discuss.

Actuarial valuations are based on assumptions regarding future plan experience including investment return and payroll growth, eligibility for the types of benefits provided, and longevity among retirees. The CalPERS Board of Administration (board) adopts these assumptions after considering the advice of CalPERS actuarial and investment teams and other professionals. Each actuarial valuation reflects all prior differences between actual and assumed experience and adjusts the contribution requirements as needed. This valuation is based on an investment return assumption of 6.8%, which was adopted by the board in November 2021. Other assumptions used in this report are those recommended in the CalPERS Experience Study and Review of Actuarial Assumptions report from November 2021.

Required Contribution

The table below shows the minimum required employer contributions and the Employee PEPRA Rate for FY 2023-24 along with estimates of the required contributions for FY 2024-25. Employee contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The required employer contributions in this report do not reflect any cost sharing arrangement between the agency and the employees.**

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability	PEPRA Member Rate
2023-24	7.68%	\$0	7.75%
<i>Projected Results</i>			
2024-25	7.7%	\$0	TBD

The actual investment return for FY 2021-22 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 6.8%. ***To the extent the actual investment return for FY 2021-22 differs from 6.8%, the actual contribution requirements for FY 2024-25 will differ from those shown above.*** For additional details regarding the assumptions and methods used for these projections, please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This section also contains projected required contributions through FY 2028-29.

Changes from Previous Year's Valuation

On July 12, 2021, CalPERS reported a preliminary 21.3% net return on investments for FY 2020-21. Since the return exceeded the 7.00% discount rate sufficiently, the CalPERS Funding Risk Mitigation policy allows CalPERS to use a portion of the investment gain to offset the cost of reducing the expected volatility of future investment returns. Based on the thresholds specified in the policy, the excess return of 14.3% prescribes a reduction in investment volatility that corresponds to a reduction in the discount rate of 0.20%, from 7.00% to 6.80%.

On November 17, 2021, the board adopted new actuarial assumptions based on the recommendations in the November 2021 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases, and inflation assumption for public agencies. These new assumptions are incorporated in this actuarial valuation and will impact the required contribution for FY 2023-24. In addition, the board adopted a new strategic asset allocation as part of its Asset Liability Management process. The new asset allocation along with the new capital market assumptions and economic assumptions support a discount rate of 6.80%. This includes a reduction in the price inflation assumption from 2.50% to 2.30%.

Besides the above noted changes, there may also be changes specific to the plan such as contract amendments and funding changes.

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A of the Section 2 report, "Actuarial Methods and Assumptions."

Questions

We understand that you might have questions about these results, and the plan actuary whose signature is on the valuation report is available to discuss. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or (888-225-7377).

Sincerely,



SCOTT TERANDO, ASA, EA, MAAA, FCA, CFA
Chief Actuary



**Actuarial Valuation
as of June 30, 2021**

**for the
PEPRA Miscellaneous Plan
of the
Municipal Water District of Orange County
(CalPERS ID: 6497938438)**

**Required Contributions
for Fiscal Year
July 1, 2023 - June 30, 2024**

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Section 2 – Risk Pool Actuarial Valuation Information

Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Plan Specific Information for the PEPRA Miscellaneous Plan of the Municipal Water District of Orange County

**(CalPERS ID: 6497938438)
(Rate Plan ID: 26684)**

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Actuarial Certification

To the best of our knowledge, this report, comprising of Sections 1 and 2, is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the PEPRA Miscellaneous Plan of the Municipal Water District of Orange County and satisfies the actuarial valuation requirements of Government Code section 7504. This valuation is based on the member and financial data as of June 30, 2021 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. Section 1 of this report is based on the member and financial data for Municipal Water District of Orange County, while Section 2 is based on the corresponding information for all agencies participating in the Miscellaneous Risk Pool to which the plan belongs.

As set forth in Section 2 of this report, the pool actuaries have certified that, in their opinion, the valuation of the Miscellaneous Risk Pool has been performed in accordance with generally accepted actuarial principles consistent with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for the risk pool as of the date of this valuation and as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the rate plan, it is my opinion as the plan actuary that the Unfunded Accrued Liability amortization bases as of June 30, 2021 and employer contribution as of July 1, 2023 have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary who satisfies the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States with regard to pensions.

A handwritten signature in black ink, appearing to read "Kerry J. Worgan", with a stylized flourish at the end.

KERRY J. WORGAN, MAAA, FSA, FCIA
Supervising Pension Actuary, CalPERS

Highlights and Executive Summary

- **Introduction**
- **Purpose of Section 1**
- **Required Contributions**
- **Additional Discretionary Employer Contributions**
- **Plan's Funded Status**
- **Projected Employer Contributions**
- **Other Pooled Miscellaneous Risk Pool Rate Plans**
- **Cost**
- **Changes Since the Prior Year's Valuation**
- **Subsequent Events**

Introduction

This report presents the results of the June 30, 2021 actuarial valuation of the PEPRA Miscellaneous Plan of the Municipal Water District of Orange County of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for (FY) 2023-24.

Purpose of Section 1

This Section 1 report for the PEPRA Miscellaneous Plan of the Municipal Water District of Orange County of CalPERS was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2021;
- Determine the minimum required employer contribution for this plan for the FY July 1, 2023 through June 30, 2024; and
- Provide actuarial information as of June 30, 2021 to the CalPERS Board of Administration (board) and other interested parties.

The pension funding information presented in this report should not be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available on the CalPERS website (www.calpers.ca.gov).

The measurements shown in this actuarial valuation may not be applicable for other purposes. The agency should contact the plan actuary before disseminating any portion of this report for any reason that is not explicitly described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in actuarial policies; changes in plan provisions or applicable law; and differences between the required contributions determined by the valuation and the actual contributions made by the agency.

Assessment and Disclosure of Risk

This report includes the following risk disclosures consistent with the recommendations of Actuarial Standards of Practice No. 51 and recommended by the California Actuarial Advisory Panel (CAAP) in the Model Disclosure Elements document:

- A "Scenario Test," projecting future results under different investment income returns.
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 5.8% and 7.8%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current post-retirement mortality assumptions adopted in 2021.
- Plan maturity measures indicating how sensitive a plan may be to the risks noted above.

Required Contributions

Required Employer Contributions		Fiscal Year 2023-24
Employer Normal Cost Rate		7.68%
Plus		
Required Payment on Amortization Bases ¹		\$0
Paid either as		
1) Monthly Payment		\$0.00
Or		
2) Annual Prepayment Option*		\$0
Required PEPRM Member Contribution Rate		7.75%
<i>The total minimum required employer contribution is the sum of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll and paid as payroll is reported) plus the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly (1) or prepaid annually (2) in dollars).</i>		
<i>* Only the UAL portion of the employer contribution can be prepaid (which must be received in full no later than July 31).</i>		
<i>For additional detail regarding the determination of the required PEPRM member contribution rate see section on PEPRM Member Contribution Rates.</i>		

	Fiscal Year 2022-23	Fiscal Year 2023-24
Development of Normal Cost as a Percentage of Payroll		
Base Total Normal Cost for Formula	14.22%	15.43%
Surcharge for Class 1 Benefits ²		
None	0.00%	0.00%
Phase out of Normal Cost Difference ³	0.00%	0.00%
Plan's Total Normal Cost	14.22%	15.43%
Plan's Employee Contribution Rate	6.75%	7.75%
Employer Normal Cost Rate	7.47%	7.68%

¹ The required payment on amortization bases does not take into account any additional discretionary payment made after April 29, 2022.

² Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

³ The normal cost change is phased out over a five-year period in accordance with the CalPERS contribution allocation policy.

Additional Discretionary Employer Contributions

The minimum required employer contribution towards the Unfunded Accrued Liability (UAL) for this rate plan for the 2023-24 FY is \$0. CalPERS allows agencies to make additional discretionary payments (ADPs) at any time and in any amount. These optional payments serve to reduce the UAL and future required contributions and can result in significant long-term savings. Agencies can also use ADPs to stabilize annual contributions as a fixed dollar amount, percent of payroll or percent of revenue.

Provided below are select ADP options for consideration. Making such an ADP during FY 2023-24 does not require an ADP be made in any future year, nor does it change the remaining amortization period of any portion of unfunded liability. For information on permanent changes to amortization periods, see the "Amortization Schedule and Alternatives" section of the report.

Agencies considering making an ADP should contact CalPERS for additional information.

Minimum Required Employer Contribution for Fiscal Year 2023-24

Estimated Normal Cost	Minimum UAL Payment	ADP	Total UAL Contribution	Estimated Total Contribution
\$130,528	\$0	\$0	\$0	\$130,528

Alternative Fiscal Year 2023-24 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP ¹	Total UAL Contribution	Estimated Total Contribution
N/A	N/A	N/A	N/A	N/A	N/A

¹ The ADP amounts are assumed to be made in the middle of the fiscal year. A payment made earlier or later in the fiscal year would have to be less or more than the amount shown to have the same effect on the UAL amortization.

Note that the calculations above are based on the projected Unfunded Accrued Liability as of June 30, 2023 as determined in the June 30, 2021 actuarial valuation. New unfunded liabilities can emerge in future years due to assumption or method changes, changes in plan provisions, and actuarial experience different than assumed. Making an ADP illustrated above for the indicated number of years will not result in a plan that is exactly 100% funded in the indicated number of years. Valuation results will vary from one year to the next and can diverge significantly from projections over a period of several years.

Plan's Funded Status

	June 30, 2020	June 30, 2021
1. Present Value of Projected Benefits (PVB)	\$3,049,437	\$3,876,749
2. Entry Age Accrued Liability (AL)	988,167	1,389,347
3. Plan's Market Value of Assets (MVA)	889,718	1,445,130
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	98,449	(55,783)
5. Funded Ratio [(3) / (2)]	90.0%	104.0%

The UAL and funded ratio are assessments of the need for future employer contributions based on the actuarial cost method used to fund the plan. The UAL is the present value of future employer contributions for service that has already been earned and is in addition to future normal cost contributions for active members. The funded ratio, on the other hand, is a relative measure of funded status that allows for comparison between plans of different sizes. For measures of funded status that are appropriate for assessing the sufficiency of plan assets to cover estimated termination liabilities, please see "Hypothetical Termination Liability" in the "Risk Analysis" section.

Projected Employer Contributions

The table below shows the required and projected employer contributions (before cost sharing) for the next six fiscal years. The projection assumes that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period. In particular, the investment return beginning with FY 2021-22 is assumed to be 6.80% per year, net of investment and administrative expenses. Actual contribution rates during this projection period could be significantly higher or lower than the projection shown below. Future contribution requirements may differ significantly from those shown below. The actual long-term cost of the plan will depend on the actual benefits and expenses paid and the actual investment experience of the fund.

	Required Contribution	Projected Future Employer Contributions (Assumes 6.80% Return for Fiscal Year 2021-22 and Beyond)				
Fiscal Year	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
	Rate Plan 26684 Results					
Normal Cost %	7.68%	7.7%	7.7%	7.7%	7.7%	7.7%
UAL Payment	\$0	\$0	\$0	\$0	\$0	\$0

For some sources of UAL, the change in UAL is amortized using a 5-year ramp up. For more information, please see "Amortization of the Unfunded Actuarial Accrued Liability" under "Actuarial Methods" in Appendix A of the Section 2 Report. This method phases in the impact of the change in UAL over a 5-year period in order to reduce employer cost volatility from year to year. As a result of this methodology, dramatic changes in the required employer contributions in any one year are less likely. However, required contributions can change gradually and significantly over the next five years. In years when there is a large increase in UAL, the relatively small amortization payments during the ramp up period could result in a funded ratio that is projected to decrease initially while the contribution impact of the increase in the UAL is phased in.

For projected contributions under alternate investment return scenarios, please see the "Future Investment Return Scenarios" in the "Risk Analysis" section.

Our online pension plan projection tool, Pension Outlook, is available in the Employers section of the CalPERS website. Pension Outlook can help plan and budget pension costs under various scenarios.

Other Pooled Miscellaneous Risk Pool Rate Plans

All of the results presented in this Section 1 report, except those shown below, correspond to rate plan 26684. In many cases, employers have additional rate plans within the same risk pool. For cost analysis and budgeting it is useful to consider contributions for these rate plans as a whole rather than individually. The estimated contribution amounts and rates for all of the employer's rate plans in the Miscellaneous Risk Pool are shown below and assume that the payroll for each rate plan will grow according to the overall payroll growth assumption of 2.80% per year for three years.

	Fiscal Year 2022-23	Fiscal Year 2023-24
Estimated Combined Employer Contributions for all Pooled Miscellaneous Rate Plans		
Projected Payroll for the Contribution Year	\$4,419,188	\$4,487,133
Estimated Employer Normal Cost	\$428,232	\$478,135
Required Payment on Amortization Bases	\$255,889	\$231,436
Estimated Total Employer Contributions	\$684,121	\$709,571
Estimated Total Employer Contribution Rate (illustrative only)	15.48%	15.81%

Cost

Actuarial Determination of Plan Cost

Contributions to fund the plan are comprised of two components:

- Normal Cost, expressed as a percentage of total active payroll
- Amortization of the Unfunded Accrued Liability (UAL), expressed as a dollar amount

For fiscal years prior to 2016-17, the Amortization of UAL component was expressed as a percentage of total active payroll. Starting with FY 2016-17, the Amortization of UAL component was expressed as a dollar amount and invoiced on a monthly basis. There continues to be an option to prepay this amount during July of each fiscal year.

The Normal Cost component is expressed as a percentage of active payroll with employer and employee contributions payable as part of the regular payroll reporting process.

The determination of both components requires complex actuarial calculations. The calculations are based on a set of actuarial assumptions which can be divided into two categories:

- Demographic assumptions (e.g., mortality rates, retirement rates, employment termination rates, disability rates)
- Economic assumptions (e.g., future investment earnings, inflation, salary growth rates)

These assumptions reflect CalPERS' best estimate of future experience of the plan and are long term in nature. We recognize that all assumptions will not be realized in any given year. For example, the investment earnings at CalPERS have averaged 6.9% over the 20 years ending June 30, 2021, yet individual fiscal year returns have ranged from -23.6% to +21.3%. In addition, CalPERS reviews all actuarial assumptions by conducting in-depth experience studies every four years, with the most recent experience study completed in 2021.

Changes Since the Prior Year's Valuation

Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation following the effective date of the legislation. Voluntary benefit changes by plan amendment are generally included in the first valuation that is prepared after the amendment becomes effective, even if the valuation date is prior to the effective date of the amendment.

This valuation generally reflects plan changes by amendments effective before the date of the report. Please refer to the "Plan's Major Benefit Options" and Appendix B of the Section 2 Report for a summary of the plan provisions used in this valuation.

Actuarial Methods and Assumptions

On November 17, 2021, the board adopted new actuarial assumptions based on the recommendations in the 2021 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases, and inflation assumption for Public Agencies. These new assumptions are incorporated in this actuarial valuation and will impact the required contribution for FY 2023-24. In addition, the board adopted a new asset portfolio as part of its Asset Liability Management process. The new asset mix supports a 6.80% discount rate, which reflects a change in the price inflation assumption to 2.30%.

Subsequent Events

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of June 30, 2021. Changes subsequent to that date are not reflected. Investment returns below the assumed rate of return may increase future required contributions while investment returns above the assumed rate of return may decrease future required contributions.

The projected employer contributions on Page 6 are calculated under the assumption that the discount rate remains at 6.8% going forward and that the realized rate of return on assets for FY 2021-22 is 6.8%.

This actuarial valuation report reflects statutory changes, regulatory changes and board actions through January 2022. Any subsequent changes or actions are not reflected.

Assets and Liabilities

- **Breakdown of Entry Age Accrued Liability**
- **Allocation of Plan's Share of Pool's Experience/Assumption Change**
- **Development of Plan's Share of Pool's Market Value of Assets**
- **Schedule of Plan's Amortization Bases**
- **Amortization Schedule and Alternatives**
- **Employer Contribution History**
- **Funding History**

Breakdown of Entry Age Accrued Liability

Active Members	\$1,296,866
Transferred Members	87,621
Terminated Members	4,860
Members and Beneficiaries Receiving Payments	0
Total	\$1,389,347

Allocation of Plan's Share of Pool's Experience/Assumption Change

It is the policy of CalPERS to ensure equity within the risk pools by allocating the pool's experience gains/losses and assumption changes in a manner that treats each employer equitably and maintains benefit security for the members of the System while minimizing substantial variations in employer contributions. The Pool's experience gains/losses and impact of assumption/method changes is allocated to the plan as follows:

1. Plan's Accrued Liability	\$1,389,347
2. Projected UAL balance at 6/30/2021	98,991
3. Pool's Accrued Liability ¹	20,794,529,023
4. Sum of Pool's Individual Plan UAL Balances at 6/30/2021 ¹	4,597,734,264
5. Pool's 2020/21 Investment (Gain)/Loss ¹	(2,338,185,055)
6. Pool's 2020/21 Non-Investment (Gain)/Loss ¹	(84,077,623)
7. Plan's Share of Pool's Investment (Gain)/Loss: $[(1) - (2)] \div [(3) - (4)] \times (5)$	(186,277)
8. Plan's Share of Pool's Non-Investment (Gain)/Loss: $(1) \div (3) \times (6)$	(5,617)
9. Plan's New (Gain)/Loss as of 6/30/2021: $(7) + (8)$	(191,894)
10. Increase in Pool's Accrued Liability due to Change in Assumptions ¹	60,407,898
11. Plan's Share of Pool's Change in Assumptions: $(1) \div (3) \times (10)$	4,036
12. Increase in Pool's Accrued Liability due to Funding Risk Mitigation ¹	495,172,731
13. Plan's Share of Pool's Change due to Funding Risk Mitigation: $(1) \div (3) \times (12)$	33,084
14. Offset due to Funding Risk Mitigation	(56,000)
15. Plan's Net Investment (Gain): $(7) - (14)$	(130,277)

¹ Does not include plans that transferred to Pool on the valuation date.

Development of the Plan's Share of Pool's Market Value of Assets

16. Plan's UAL: $(2) + (9) + (11) + (13)$	(\$55,783)
17. Plan's Share of Pool's MVA: $(1) - (16)$	\$1,445,130

Schedule of Plan's Amortization Bases

Note that there is a two-year lag between the valuation date and the start of the contribution fiscal year.

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2021.
- The required employer contributions determined by the valuation are for the fiscal year beginning two years after the valuation date: FY 2023-24.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and the need to provide public agencies with their required employer contribution well in advance of the start of the fiscal year.

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the expected payment on the UAL for the fiscal year and adjusting for interest. The expected payment for the first fiscal year is determined by the actuarial valuation two years ago and the contribution for the second year is from the actuarial valuation one year ago. Additional discretionary payments are reflected in the Expected Payments column in the fiscal year they were made by the agency.

Reason for Base	Date Est.	Ramp Level	Ramp Shape	Escalation Rate	Amort. Period	Balance 6/30/21	Expected Payment 2021-22	Balance 6/30/22	Expected Payment 2022-23	Balance 6/30/23	Expected Payment 2023-24	Minimum Required Payment
Fresh Start	6/30/21				N/A	(55,783)	(17,274)	(41,725)	(16,843)	(27,156)	0	0
Total						(55,783)	(17,274)	(41,725)	(16,843)	(27,156)	0	0

The (gain)/loss bases are the plan's allocated share of the risk pool's (gain)/loss for the fiscal year as disclosed in "Allocation of Plan's Share of Pool's Experience/Assumption Change" earlier in this section. These (gain)/loss bases will be amortized in accordance with the CalPERS amortization policy in effect at the time the base was established.

Amortization Schedule and Alternatives

The amortization schedule on the previous page(s) shows the minimum contributions required according to the CalPERS amortization policy. Many agencies have expressed a desire for a more stable pattern of payments or have indicated interest in paying off the unfunded accrued liabilities more quickly than required. As such, we have provided alternative amortization schedules to help analyze the current amortization schedule and illustrate the potential savings of accelerating unfunded liability payments.

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternative “fresh start” amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule. To initiate a Fresh Start, please contact the plan actuary.

The Current Amortization Schedule typically contains both positive and negative bases. Positive bases result from plan changes, assumption changes, method changes or plan experience that increase unfunded liability. Negative bases result from plan changes, assumption changes, method changes, or plan experience that decrease unfunded liability. The combination of positive and negative bases within an amortization schedule can result in unusual or problematic circumstances in future years, such as:

- When a negative payment would be required on a positive unfunded actuarial liability; or
- When the payment would completely amortize the total unfunded liability in a very short time period, and results in a large change in the employer contribution requirement.

In any year when one of the above scenarios occurs, the actuary will consider corrective action such as replacing the existing unfunded liability bases with a single “fresh start” base and amortizing it over an appropriate period.

The Current Amortization Schedule on the following page may appear to show that, based on the current amortization bases, one of the above scenarios will occur at some point in the future. It is impossible to know today whether such a scenario will in fact arise since there will be additional bases added to the amortization schedule in each future year. Should such a scenario arise in any future year, the actuary will take appropriate action based on guidelines in the CalPERS amortization policy.

Amortization Schedule and Alternatives (continued)

Date	<u>Current Amortization Schedule</u>		<u>Alternate Schedules</u>			
	Balance	Payment	N/A Year Amortization		N/A Year Amortization	
			Balance	Payment	Balance	Payment
6/30/2023	N/A	N/A	N/A	N/A	N/A	N/A
6/30/2024						
6/30/2025						
6/30/2026						
6/30/2027						
6/30/2028						
6/30/2029						
6/30/2030						
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6/30/2049						
6/30/2050						
6/30/2051						
6/30/2052						
Total		N/A		N/A		N/A
Interest Paid		N/A		N/A		N/A
Estimated Savings				N/A		N/A

Employer Contribution History

The table below provides a recent history of the required employer contributions for the plan. The amounts are based on the actuarial valuation from two years prior and does not account for prepayments or benefit changes made during a fiscal year. Additional discretionary payments before July 1, 2019 or after June 30, 2021 are not included.

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment (\$)	Additional Discretionary Payments
2016 - 17	6.555%	\$149	N/A
2017 - 18	6.533%	230	N/A
2018 - 19	6.842%	2,172	N/A
2019 - 20	6.985%	2,438	0
2020 - 21	7.732%	6,138	0
2021 - 22	7.59%	6,671	
2022 - 23	7.47%	7,772	
2023 - 24	7.68%	0	

Funding History

The table below shows the recent history of the actuarial accrued liability, share of the pool's market value of assets, unfunded accrued liability, funded ratio, and annual covered payroll.

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Unfunded Accrued Liability (UAL)	Funded Ratio	Annual Covered Payroll
06/30/2014	\$32,950	\$34,415	(\$1,465)	104.5%	\$219,432
06/30/2015	95,833	91,620	4,213	95.6%	447,122
06/30/2016	204,458	183,981	20,477	90.0%	601,671
06/30/2017	345,872	327,242	18,630	94.6%	883,832
06/30/2018	515,011	471,223	43,788	91.5%	940,133
06/30/2019	707,720	642,900	64,820	90.8%	989,019
06/30/2020	988,167	889,718	98,449	90.0%	1,413,501
06/30/2021	1,389,347	1,445,130	(55,783)	104.0%	1,564,455

Risk Analysis

- **Future Investment Return Scenarios**
- **Discount Rate Sensitivity**
- **Mortality Rate Sensitivity**
- **Maturity Measures**
- **Maturity Measures History**
- **Hypothetical Termination Liability**

Future Investment Return Scenarios

Analysis using the investment return scenarios from the Asset Liability Management process completed in 2021 was performed to determine the effects of various future investment returns on required employer contributions. The projections below reflect the impact of the CalPERS Funding Risk Mitigation policy. The projections also assume that all other actuarial assumptions will be realized and that no further changes in assumptions, contributions, benefits, or funding will occur.

The first table shows projected contribution requirements if the fund were to earn either 3.0% or 10.8% annually. These alternate investment returns were chosen because 90% of long-term average returns are expected to fall between them over the 20-year period ending June 30, 2041.

Assumed Annual Return FY 2021-22 through 2040-41	Projected Employer Contributions				
	2024-25	2025-26	2026-27	2027-28	2028-29
3.0% (5th percentile)					
Normal Cost Rate	7.7%	7.7%	7.7%	7.7%	7.7%
UAL Contribution	\$730	\$2,800	\$6,400	\$11,000	\$18,000
10.8% (95th percentile)					
Normal Cost Rate	7.9%	8.1%	8.3%	8.5%	8.7%
UAL Contribution	\$0	\$0	\$0	\$0	\$0

Required contributions outside of this range are also possible. In particular, whereas it is unlikely that investment returns will average less than 3.0% or greater than 10.8% over a 20-year period, the likelihood of a single investment return less than 3.0% or greater than 10.8% in any given year is much greater. The following analysis illustrates the effect of an extreme, single year investment return.

The portfolio has an expected volatility (or standard deviation) of 12.0% per year. Accordingly, in any given year there is a 16% probability that the annual return will be -5.2% or less and a 2.5% probability that the annual return will be -17.2% or less. These returns represent one and two standard deviations below the expected return of 6.8%.

The following table shows the effect of a one or two standard deviation investment loss in FY 2021-22 on the FY 2024-25 contribution requirements. Note that a single-year investment gain or loss decreases or increases the required UAL contribution amount incrementally for each of the next five years, not just one, due to the 5-year ramp in the amortization policy. However, the contribution requirements beyond the first year are also impacted by investment returns beyond the first year. Historically, significant downturns in the market are often followed by higher than average returns. Such investment gains would offset the impact of these single year negative returns in years beyond FY 2024-25.

Assumed Annual Return for Fiscal Year 2021-22	Required Employer Contributions	Projected Employer Contributions
	2023-24	2024-25
(17.2)% (2 standard deviation loss)		
Normal Cost Rate	7.68%	7.7%
UAL Contribution	\$0	\$7,900
(5.2)% (1 standard deviation loss)		
Normal Cost Rate	7.68%	7.7%
UAL Contribution	\$0	\$3,600

- Without investment gains (returns higher than 6.8%) in year FY 2022-23 or later, projected contributions rates would continue to rise over the next four years due to the continued phase-in of the impact of the illustrated investment loss in FY 2021-22.
- The Pension Outlook Tool can be used to model projected contributions for these scenarios beyond FY 2024-25 as well as to model other investment return scenarios.

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.5% and 2.3%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2021 assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 6.8% as well as alternate discount rates of 5.8% and 7.8%. The rates of 5.8% and 7.8% were selected since they illustrate the impact of a 1.0% increase or decrease to the 6.8% assumption.

Sensitivity to the Real Rate of Return Assumption

As of June 30, 2021	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
Discount Rate	5.8%	6.8%	7.8%
Inflation	2.3%	2.3%	2.3%
Real Rate of Return	3.5%	4.5%	5.5%
a) Total Normal Cost	19.32%	15.43%	12.47%
b) Accrued Liability	\$1,690,881	\$1,389,347	\$1,153,395
c) Market Value of Assets	\$1,445,130	\$1,445,130	\$1,445,130
d) Unfunded Liability/(Surplus) [(b) - (c)]	\$245,751	(\$55,783)	(\$291,735)
e) Funded Ratio	85.5%	104.0%	125.3%

Sensitivity to the Price Inflation Assumption

As of June 30, 2021	1% Lower Inflation Rate	Current Assumptions	1% Higher Inflation Rate
Discount Rate	5.8%	6.8%	7.8%
Inflation	1.3%	2.3%	3.3%
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	16.27%	15.43%	14.03%
b) Accrued Liability	\$1,455,421	\$1,389,347	\$1,265,670
c) Market Value of Assets	\$1,445,130	\$1,445,130	\$1,445,130
d) Unfunded Liability/(Surplus) [(b) - (c)]	\$10,291	(\$55,783)	(\$179,460)
e) Funded Ratio	99.3%	104.0%	114.2%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2021 plan costs and funded status under two different longevity scenarios, namely assuming post-retirement rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2021. This type of analysis highlights the impact on the plan of improving or worsening mortality over the long-term.

As of June 30, 2021	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	15.71%	15.43%	15.18%
b) Accrued Liability	\$1,420,267	\$1,389,347	\$1,360,925
c) Market Value of Assets	\$1,445,130	\$1,445,130	\$1,445,130
d) Unfunded Liability/(Surplus) [(b) - (c)]	(\$24,863)	(\$55,783)	(\$84,205)
e) Funded Ratio	101.8%	104.0%	106.2%

Maturity Measures

As pension plans mature they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan sponsor to tolerate risk is important in understanding how the pension plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions. Since it is the employer that bears the risk, it is appropriate to perform this analysis on a pension plan level considering all rate plans. The following measures are for one rate plan only.

One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio starts increasing. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	June 30, 2020	June 30, 2021
1. Retired Accrued Liability	\$0	\$0
2. Total Accrued Liability	988,167	1,389,347
3. Ratio of Retiree AL to Total AL [(1) / (2)]	0.00	0.00

Another measure of maturity level of CalPERS and its plans is to look at the ratio of actives to retirees, also called the support ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures and members retire, the ratio declines. A mature plan will often have a ratio near or below one.

To calculate the support ratio for the rate plan, retirees and beneficiaries receiving a continuance are each counted as one, even though they may have only worked a portion of their careers as an active member of this rate plan. For this reason, the support ratio, while intuitive, may be less informative than the ratio of retiree liability to total accrued liability above. For comparison, the support ratio for all CalPERS public agency plans is 0.82 and is calculated consistently with how it is for the individual rate plan. Note that to calculate the support ratio for all public agency plans, a retiree with service from more than one CalPERS agency is counted as a retiree more than once.

Support Ratio	June 30, 2020	June 30, 2021
1. Number of Actives	19	19
2. Number of Retirees	0	0
3. Support Ratio [(1) / (2)]	N/A	N/A

Maturity Measures (Continued)

The actuarial calculations supplied in this communication are based on various assumptions about long-term demographic and economic behavior. Unless these assumptions (e.g., terminations, deaths, disabilities, retirements, salary growth, investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise required employer contributions from one year to the next. Therefore, employer contributions will inevitably fluctuate, especially due to the ups and downs of investment returns.

Asset Volatility Ratio

Shown in the table below is the asset volatility ratio (AVR), which is the ratio of market value of assets to payroll. Plans that have higher AVR experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with an asset-to-payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility than a plan with an asset-to-payroll ratio of 4. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures.

Liability Volatility Ratio

Also shown in the table below is the liability volatility ratio (LVR), which is the ratio of accrued liability to payroll. Plans that have a higher LVR experience more volatile employer contributions (as a percentage of payroll) due to changes in liability. For example, a plan with LVR ratio of 8 is expected to have twice the contribution volatility of a plan with LVR of 4. It should be noted that this ratio indicates a longer-term potential for contribution volatility, since the AVR, described above, will tend to move closer to the LVR as the funded ratio approaches 100%.

Contribution Volatility	June 30, 2020	June 30, 2021
1. Market Value of Assets	\$889,718	\$1,445,130
2. Payroll	1,413,501	1,564,455
3. Asset Volatility Ratio (AVR) [(1) / (2)]	0.6	0.9
4. Accrued Liability	\$988,167	\$1,389,347
5. Liability Volatility Ratio (LVR) [(4) / (2)]	0.7	0.9

Maturity Measures History

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2017	0.00	N/A	0.4	0.4
06/30/2018	0.00	N/A	0.5	0.5
06/30/2019	0.00	N/A	0.7	0.7
06/30/2020	0.00	N/A	0.6	0.7
06/30/2021	0.00	N/A	0.9	0.9

Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2021. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees.

A more conservative investment policy and asset allocation strategy was adopted by the board for the Terminated Agency Pool. The Terminated Agency Pool has limited funding sources since no future employer contributions will be made. Therefore, expected benefit payments are secured by risk-free assets and benefit security for members is increased while limiting the funding risk. However, this asset allocation has a lower expected rate of return than the PERF and consequently, a lower discount rate is assumed. The lower discount rate for the Terminated Agency Pool results in higher liabilities for terminated plans.

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 19-month period from 12 months before the valuation date to seven months after.

Market Value of Assets (MVA)	Hypothetical Termination Liability^{1,2} at 1.00%	Funded Ratio	Unfunded Termination Liability at 1.00%	Hypothetical Termination Liability^{1,2} at 2.25%	Funded Ratio	Unfunded Termination Liability at 2.25%
\$1,445,130	\$3,413,446	42.3%	\$1,968,316	\$2,522,522	57.3%	\$1,077,392

¹ The hypothetical liabilities calculated above include a 5% contingency load. The contingency load and other actuarial assumptions can be found in Appendix A.

² The discount rate used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.00% on June 30, 2021, the valuation date.

In order to terminate the plan, first contact our Pension Contract Services unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow the plan actuary to provide a preliminary termination valuation with a more up-to-date estimate of the plan liabilities. Before beginning this process, please consult with the plan actuary.

Participant Data

The table below shows a summary of the plan's member data upon which this valuation is based:

	June 30, 2020	June 30, 2021
Active Members		
Counts	19	19
Average Attained Age	38.75	39.87
Average Entry Age to Rate Plan	35.63	36.02
Average Years of Credited Service	2.96	3.72
Average Annual Covered Pay	\$74,395	\$82,340
Annual Covered Payroll	\$1,413,501	\$1,564,455
Present Value of Future Payroll	\$15,074,267	\$17,120,851
Transferred Members	6	6
Separated Members	2	3
Retired Members and Beneficiaries		
Counts*	0	0
Average Annual Benefits*	\$0	\$0

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

* Values include community property settlements.

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- None

Plan's Major Benefit Options

Shown below is a summary of the major optional benefits for which the agency has contracted. A description of principal standard and optional plan provisions is in Section 2.

Benefit Group	
Member Category	Misc
Demographics Actives Transfers/Separated Receiving	Yes Yes No
Benefit Provision Benefit Formula Social Security Coverage Full/Modified	2% @ 62 No Full
Employee Contribution Rate	6.75%
Final Average Compensation Period	Three Year
Sick Leave Credit	Yes
Non-Industrial Disability	Standard
Industrial Disability	No
Pre-Retirement Death Benefits Optional Settlement 2	Yes Level 4
1959 Survivor Benefit Level Special Alternate (firefighters)	No No
Post-Retirement Death Benefits Lump Sum Survivor Allowance (PRSA)	\$500 No
COLA	2%

PEPRA Member Contribution Rates

The California Public Employees' Pension Reform Act of 2013 (PEPRA) established new benefit formulas, final compensation period, and contribution requirements for "new" employees (generally those first hired into a CalPERS-covered position on or after January 1, 2013). In accordance with Government Code Section 7522.30(b), "new members ... shall have an initial contribution rate of at least 50% of the normal cost rate." The normal cost rate is dependent on the plan of retirement benefits, actuarial assumptions, and demographics of the risk pool, particularly members' entry age. Should the total normal cost rate change by more than 1% from the base total normal cost rate, the new member rate shall be 50% of the new normal cost rate rounded to the nearest quarter percent.

The table below shows the determination of the PEPRA member contribution rates effective July 1, 2023, based on 50% of the total normal cost rate as of the June 30, 2021 valuation.

Rate Plan Identifier	Benefit Group Name	Basis for Current Rate		Rates Effective July 1, 2023			
		Total Normal Cost	Member Rate	Total Normal Cost	Change	Change Needed	Member Rate
26684	Miscellaneous PEPRA Level	13.735%	6.75%	15.43%	1.695%	Yes	7.75%

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Risk Pool Actuarial Valuation Information

**Section 2 may be found on the CalPERS website
(www.calpers.ca.gov) in the Forms and
Publications section**



INFORMATION ITEM

October 12, 2022

TO: Administration & Finance Committee
(Directors Seckel, Thomas, Dick)

FROM: Robert Hunter, General Manager

Staff Contact: Hilary Chumpitazi

SUBJECT: Other Post Employee Benefits (OPEB) Actuarial as of July 01, 2022

STAFF RECOMMENDATION

Staff recommends the Administration & Finance Committee receive and file the Other Post Employee Benefits (OPEB) Actuarial Report

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

DETAILED REPORT

Attached for your information is the GASB 75 actuarial valuation of the District's retiree health insurance program as of July 1, 2022 (June 30, 2022).

The report includes the following information:

- The District's total OPEB liability is \$2,304,315 as of June 30, 2022. A decrease of \$387,589 compared to June 30, 2021.
 - This covers the 13 retirees and 9 active employees (who may become eligible to receive benefits in the future).
 - The significant change from the last actuarial is a decrease of \$625,000 due to changes in healthcare premiums different than expected.
- All schedules assume the Expected Return on Assets remains at 6% and the GASB 75 Discount Rate is at 6.0%.

Budgeted (Y/N):	Budgeted amount:	Core ____	Choice ____
Action item amount:		Line item:	
Fiscal Impact (explain if unbudgeted):			

- The District's OPEB Section 115 Trust has a balance of \$2,408,599 as of June 30, 2022. This means MWDOC has a Net OPEB Asset of (\$104,284) and is fully funded at 104.5%.
- The District's OPEB Reserve fund (as shown on the Balance Sheet) has a balance of \$297,147, which brings our funding status to 117.4%.
- The District's actual health insurance coverage for retiree expense for FY 2021-22 was \$85,275. We budgeted \$94,544 for FY 2022-23 for this same expense.

The next actuarial evaluation will be a roll-forward to be completed as of July 1, 2023.



GASB Statement No. 75

**Actuarial Valuation Report – Retiree Health Insurance Program
Municipal Water District of Orange County**

Valuation Date: July 1, 2022

Measurement Date: July 1, 2022

September 30, 2022



September 30, 2022

Hilary Chumpitazi
Accounting Manager
Municipal Water District of Orange County
P.O. Box 20895
Fountain Valley, CA 92728

Re: Municipal Water District of Orange County ("District") GASB 75 Valuation

Dear Hilary:

This report sets forth the results of our GASB 75 actuarial valuation of the District's retiree health insurance program as of July 1, 2022.

In June 2004, the Governmental Accounting Standards Board (GASB) issued its accrual accounting standards for retiree healthcare benefits, GASB 43 and GASB 45. GASB 43/45 require public employers such as the District to perform periodic actuarial valuations to measure and disclose their retiree healthcare liabilities for the financial statements of both the employer and the trust, if any, set aside to pre-fund these liabilities. In June 2015, GASB released new accounting standards for postretirement benefit programs, GASB 74 and GASB 75, which replace GASB 43 and GASB 45, respectively.

The District selected DFA, LLC (DFA) to perform an actuarial valuation of the retiree health insurance program as of July 1, 2022. This report may be compared with the valuation performed by DFA as of July 1, 2020, to see how the liabilities have changed since the last valuation.

Basis for Actuarial Valuation

To perform the valuation, we relied on the following information provided by the District:

- Census data for active employees and retirees
- Claims, premium, expense, and enrollment data
- Copies of relevant sections of healthcare documents, and
- (If applicable) trust statements prepared by the trustee

We also made certain assumptions regarding rates of employee turnover, retirement, and mortality, as well as economic assumptions regarding healthcare inflation and interest rates. Our assumptions are based on a standard set of assumptions used for similar valuations, modified as appropriate for the District. A complete description of the actuarial assumptions used in the valuation is set forth in the Actuarial Assumptions section.

Certification

The actuarial certification, including a caveat regarding limitations of scope, if any, is contained in the Actuarial Certification section.

We have enjoyed working with the District on this project and are available to answer any questions you may have concerning any information contained herein.

Disclosure of Risk

Considering recent events, it is important to call attention to the external risk factors associated with actuarial projections. An event like the COVID-19 pandemic has the potential to affect future measurements that would deviate from current long-term expectations. The following is a list of specific factors that impact OPEB liabilities:

- Census – retirement, turnover, and mortality experience different than expected.
- Medical coverage – premiums, participation, and level of coverage different than expected.
- Municipal bond rates – changes in applicable rates (rates are currently declining and may result in increased liabilities). Under GASB 75, the municipal rate may affect the discount rate. The quantitative effect of changes in the discount rate can be seen in the sensitivity results.
- Investment performance – (for funded plans) investment performance different than the long-term expected return. Investment performance may also affect the discount rate.

The current environment's impact on these factors will continue to unfold. We are available to discuss both short-term and long-term impact upon request.

Sincerely,
DFA, LLC

A handwritten signature in blue ink, appearing to read 'Carlos Diaz', with a stylized flourish at the end.

Carlos Diaz, ASA, EA, MAAA
Actuary

Financial Results

In this section, we present financial results based on a long-term expected return on plan investments of 6.00%. This rate is based on our best estimate of expected long-term plan experience for funded plans such as the District's. The results are intended to help (1) in comparing financial results from the previous valuation and (2) in long-term budget and strategic planning (without regard to short-term volatility in municipal bond indices). Results specific to GASB 75 reporting are presented in the next section.

We have determined that the present value of all benefits expected to be paid by the District for its current and future retirees is \$2,422,686 as of July 1, 2022. If the District were to place this amount in a fund earning interest at the rate of 6.00% per year, and all other actuarial assumptions were exactly met, the fund would have exactly enough to pay all expected benefits.



When we apportion the \$2,422,686 into past service and future service components under the Entry Age, Level Percent of Pay Cost Method, the Total OPEB Liability is \$2,304,315 as of July 1, 2022. This represents the present value of all benefits accrued through the valuation date if each employee's liability is expensed from hire date until retirement date as a level percentage of pay. The \$2,304,315 is comprised of liabilities of \$1,065,203 for active employees and \$1,239,112 for retirees.

The District has adopted an irrevocable trust for the pre-funding of retiree healthcare benefits. As of July 1, 2022, the trust balance, or Plan Fiduciary's Net Position (GASB 75) is \$2,408,599.

The Net OPEB Liability (Asset), equal to the Total OPEB Liability over the Plan Fiduciary's Net Position, is \$(104,284).

This valuation includes benefits for 13 retirees and nine active employees who may become eligible to retire and receive benefits in the future. It excludes employees hired after the valuation date.

Financial Results (continued)

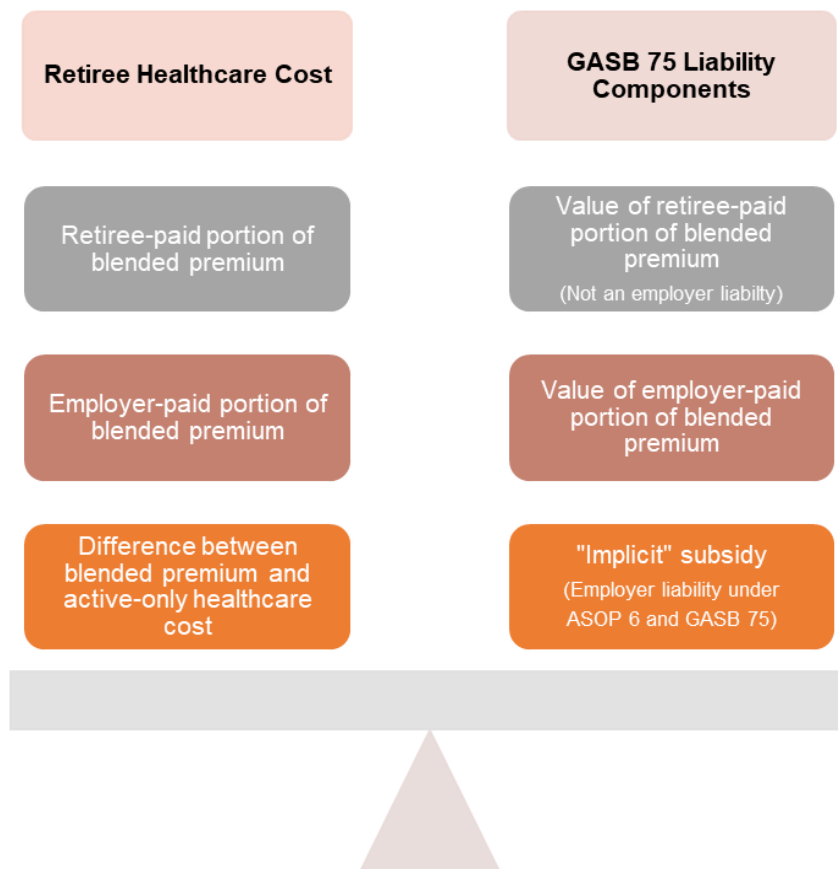
ASOP 6 – Age-Specific Costs and Implicit Subsidy

The valuation reflects the value of an implicit subsidy equal to \$246,542.

The implicit subsidy represents the value of age-specific claims over average premiums. To determine age-specific claims, we used an age-specific claim cost matrix fitted to the average premium charged by the District.

Actuarial Standard of Practice No. 6 (ASOP 6) provides guidance in measuring OPEB obligations and determining periodic costs or actuarially determined contributions. The standard specifies that in (almost all instances), the actuary should use age-specific costs in the development of the initial per capita costs and in the projection of future benefit plan costs.

When claims experience of both active employees and retirees are pooled in determining healthcare premiums, a retiree may pay an amount based on a blended pool of members that, on average, is younger and healthier. In a pooled environment, retiree claims are covered by premiums charged to the retiree plus an added cost included in active premiums. Blended premium charged represents an “explicit” cost, while the added cost represents an “implicit” cost.



Financial Results (continued)

Differences from Prior Valuation

The most recent prior valuation was completed as of July 1, 2020 by DFA. The Total OPEB Liability as of that date was \$2,602,083, compared to \$2,304,315 as of July 1, 2022 (determined using a discount rate of 6.00%).

Several factors have caused the Total OPEB Liability to change since 2020:

- An increase as employees accrue more service and get closer to receiving benefits.
- A decrease from a release of benefits.
- Changes in the plan census from new employees and differences between actual and expected retirement, terminations, and deaths.
- Changes in healthcare costs from differences between actual and expected healthcare trend; and
- Changes in actuarial assumptions and methodology for the current valuation.

To summarize, the most important changes were as follows:

1. An increase of \$174,985 from the passage of time (service and interest costs less benefits paid).
2. A decrease of \$2,693 resulting from population experience (terminations, retirements, and mortality) different than expected.
3. A decrease of \$625,161 from changes in healthcare premiums different than expected.
4. An increase of \$72,258 from changes in the healthcare trend rate.
5. An increase of \$82,843 from an update in the mortality assumption.

These changes from July 1, 2020 to July 1, 2022 are combined as follows:

Total OPEB Liability as of July 1, 2020	\$2,602,083
Passage of time	174,985
Difference between expected/actual experience	(627,854)
Changes in assumptions or other inputs	155,101
Changes in plan provisions	0
Total OPEB Liability as of July 1, 2022	\$2,304,315

Financial Results (continued)

Funded Status

The District's irrevocable trust (as of July 1, 2022) holds \$2,408,599, against liabilities of \$2,304,315, for a funded status of 104.5%. We understand that the District has established an internal reserve (called the OPEB Reserve) in the amount of \$297,147.00. Considering trust and reserve the funded status is 117.4%.

	Irrevocable Trust	Irrevocable Trust Plus, Internal Reserve
1. Total OPEB Liability	\$2,304,315	\$2,304,315
2. Allocated Assets	2,408,599	2,705,746
3. Funded Status: (2) ÷ (3)	104.5%	117.4%
4. Amount to Attain/(Exceeding) 100% Status: (1) – (2)	(\$104,284)	(\$401,431)

GASB 75 Results

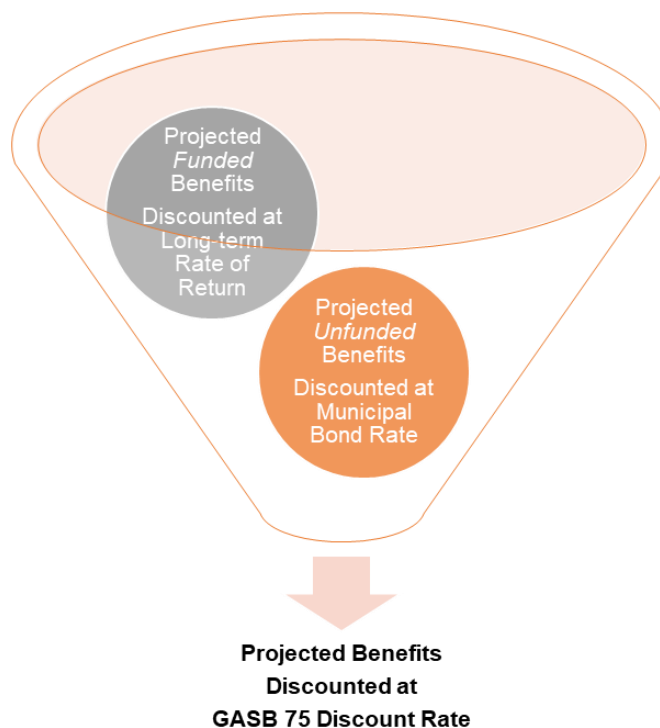
For financial reporting purposes, GASB 75 requires a discount rate that reflects the following:

- a. The long-term expected rate of return on OPEB plan investments – to the extent that the OPEB plan's fiduciary net position is projected to be enough to make projected benefit payments and assets are expected to be invested using a strategy to achieve that return.
- b. A yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher – to the extent that the conditions in (a) are not met.

The amount of the plan's projected fiduciary net position and the amount of projected benefit payments should be compared in each period of projected benefit payments.

Based on these requirements and the following information, we have determined a discount rate of 6.00% for GASB 75 reporting purposes:

Long-Term Expected Return on Assets	6.00%
Fidelity General Obligations AA - 20 Years Index on June 30, 2022	3.69%
GASB 75 Discount Rate	6.00%



GASB 75 Results (continued)

Municipal Water District of Orange County Net OPEB Liabilities and Expense Under GASB 75 Accrual Accounting Standard

	July 1, 2022 ¹		
	Long-Term Return	Municipal Bond Index	GASB 75 Rate
Discount Rate	6.00%	3.69%	6.00%
Present Value of Future Benefits			
Active	\$1,183,574	\$1,765,688	\$1,183,574
Retired	1,239,112	1,550,287	1,239,112
Total	\$2,422,686	\$3,315,975	\$2,422,686
Total OPEB Liability (Actuarial Liability)			
Active	\$1,065,203	\$1,523,720	\$1,065,203
Retired	1,239,112	1,550,287	1,239,112
Total	\$2,304,315	\$3,074,007	\$2,304,315
Plan Fiduciary Net Position (Plan Assets)	\$2,408,599	\$2,408,599	\$2,408,599
Net OPEB Liability (Asset)	\$(104,284)	\$665,408	\$(104,284)
Sensitivity Analysis			
1% Decrease in Discount Rate	5.00%	2.69%	5.00%
Total OPEB Liability	\$2,594,622	\$3,540,518	\$2,594,622
Net OPEB Liability (Asset)	\$186,023	\$1,131,919	\$186,023
1% Increase in Discount Rate	7.00%	4.69%	7.00%
Total OPEB Liability	\$2,063,746	\$2,696,781	\$2,063,746
Net OPEB Liability (Asset)	\$(344,853)	\$288,182	\$(344,853)
1% Decrease in Trend Rate ²			
Total OPEB Liability	\$2,086,706	\$2,728,102	\$2,086,706
Net OPEB Liability (Asset)	\$(321,893)	\$319,503	\$(321,893)
1% Increase in Trend Rate ³			
Total OPEB Liability	\$2,567,888	\$3,503,775	\$2,567,888
Net OPEB Liability (Asset)	\$159,289	\$1,095,176	\$159,289

¹ For the District's financial statements, DFA will provide separate schedules with supplemental GASB 75 information.

² Trend rate for each future year reduced by 1.00%.

³ Trend rate for each future year increased by 1.00%.

GASB 75 Results (continued)

Net OPEB Expense

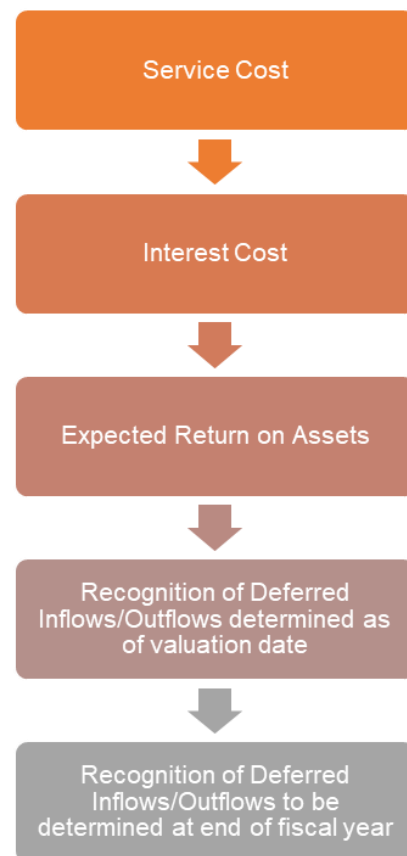
We have determined the following components of the District's Net OPEB Expense for the measurement year ending June 30, 2023: Service Cost, Interest Cost, Expected Return on Assets, and Deferred Outflows and Inflows (determined as of the valuation date).

- Service Cost represents the present value of benefits accruing in the current year.
- Interest Cost represents the interest on the Total OPEB Obligation and interest on the Service Cost.
- Expected Return on Assets is the expected return based on a 6.00% investment rate of return.
- Deferred Outflows and Inflows of Resources (determined as of the valuation date) are changes in the Net OPEB Liability resulting from differences between projected and actual plan experience, from differences between projected and actual OPEB plan investments, and from changes in assumptions.

The Net OPEB Expense will reflect additional Deferred Outflows and Inflows that will be determined based on the Net OPEB Obligation as of June 30, 2023.

We summarize results in the table on the next page. For comparative purposes, we provide service cost and interest cost at three discount rates (the expected return on assets, the municipal bond index, and the GASB 75 rate, discussed above). We determine Deferred Outflows and Inflows solely on the applicable GASB 75 rate. All amounts are net of expected future retiree contributions, if any.

DFA will be available to assist the District and its auditors in preparing the footnotes and required supplemental information for compliance with GASB 75 (and GASB 74, if applicable). In the meantime, we are available to answer any questions the District may have concerning the report.



GASB 75 Results (continued)

Actuarially Determined Contribution and Pay-As-You-Go with Implied Subsidy

We have calculated an actuarially determined contribution representing the Service Cost and a 30-year amortization (as a level percent of pay) of the Net OPEB Liability. We include the results in the table on the next page. We provide results at three discount rates (the expected long-term expected return on assets, the municipal bond index, and the GASB 75 rate).

An actuarially determined contribution is a potential payment to the plan determined using a contribution allocation procedure. It is not a required contribution, but a measurement commonly used to prefund OPEB benefits. We provide the amounts for illustrative purposes.

The actuarially determined contribution may be compared to the pay-as-you-go payment. The table shows the pay-as-you-go payment along with the projected implied subsidy payment.

The Funding Schedules section provides additional prefunding alternatives.

GASB 75 Results (continued)

Municipal Water District of Orange County Net OPEB Liabilities and Expense Under GASB 75 Accrual Accounting Standard

	July 1, 2022		
	Long-Term Return	Municipal Bond Index	GASB 75 Rate
Discount Rate	6.00%	3.69%	6.00%
Components of Net OPEB Expense for 2022-23			
Service Cost (beginning of year)	\$17,857	\$32,442	\$17,857
Interest Cost	135,876	112,492	135,876
Expected Return on Assets	(144,516)	(144,516)	(144,516)
Total ⁴	\$9,217	\$418	\$9,217
Actuarially Determined Contribution for 2022-23			
Service Cost (mid-year)	\$18,385	\$33,035	\$18,385
Amortization of Net OPEB Liability (Asset) ⁵	(5,263)	24,840	(5,263)
Total ^{6,7}	\$13,122	\$57,875	\$13,122
Pay-As-You-Go Payment with Implied Subsidy for 2022-23			
Projected Pay-As-You-Go	\$104,340	\$104,340	\$104,340
Projected Implied Subsidy	12,500	12,500	12,500
Total	\$116,840	\$116,840	\$116,840

⁴ Additional components are shown on the following pages. Deferred Outflows/Inflows of Resources will also include changes determined based on the Total OPEB Obligation and Plan Fiduciary Net Position as June 30, 2023.

⁵ 30-year amortization (as a level percent of pay).

⁶ Estimated Actuarially Determined Contribution for subsequent year:

	Long-Term Return	Municipal Bond Index	GASB 75 Rate
Actuarially Determined Contribution for 2023-24 ⁷	\$13,516	\$59,611	\$13,516

⁷ Total includes any adjustment for implicit subsidy. Adjustment for implicit subsidy would equal District-paid premiums on behalf of retirees (from trust and non-trust) multiplied by a factor of 0.1198.

GASB 75 Results (continued)

Schedule of Changes in Net OPEB Liability (July 1, 2021 to June 30, 2022)

1. Total OPEB Liability	
a. Total OPEB Liability on July 1, 2021 ⁸	\$2,781,100
b. Service Cost ⁹	15,920
c. Interest Cost	159,271
d. Benefit Payments ¹⁰	(108,197)
e. Changes in plan provisions ¹¹	0
f. Difference between expected and actual experience ¹²	(609,684)
g. Changes in assumptions and other inputs ¹²	155,101
h. Total OPEB Liability on July 1, 2022	\$2,304,315
2. Plan Fiduciary Net Position	
a. Plan Fiduciary Net Position on July 1, 2021 ⁸	\$2,781,100
b. Contributions ¹⁰	108,197
c. Expected Investment Income	166,866
d. Benefit Payments ¹⁰	(108,197)
e. Net Transfers	0
f. Difference between actual and expected return on assets ¹²	(539,367)
g. Plan Fiduciary Net Position on July 1, 2022	\$2,408,599
3. Net OPEB Liability (Asset): (1h) - (2f)	(\$104,284)
4. Discount Rate	
a. July 1, 2021	6.00%
b. July 1, 2022	6.00%

⁸ From June 30, 2021 disclosure report, based on the July 1, 2020 actuarial valuation.

⁹ Discounted from July 1, 2022 valuation.

¹⁰ Includes credit toward implicit subsidy (if applicable).

¹¹ Included in OPEB Expense.

¹² Deferred (Outflow)/Inflow of Resources established as of June 30, 2022.

GASB 75 Results (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

Type	Initial Amount	Date Established	Period (Years)	Annual Recognition ¹³
Difference between expected/actual experience	0	06/30/2018	0.0	0
Difference between expected/actual return on assets	269	06/30/2018	5.0	53
Changes in assumptions or other inputs	0	06/30/2018	0.0	0
Difference between expected/actual experience	0	06/30/2019	0.0	0
Difference between expected/actual return on assets	(9,854)	06/30/2019	5.0	(1,971)
Changes in assumptions or other inputs	0	06/30/2019	0.0	0
Difference between expected/actual experience	(86,201)	06/30/2020	2.9	(26,753)
Difference between expected/actual return on assets	58,888	06/30/2020	5.0	11,778
Changes in assumptions or other inputs	102,437	06/30/2020	2.9	31,791
Difference between expected/actual experience	0	06/30/2021	0.0	0
Difference between expected/actual return on assets	(357,852)	06/30/2021	5.0	(71,570)
Changes in assumptions or other inputs	0	06/30/2021	0.0	0
Difference between expected/actual experience	(609,684)	06/30/2022	2.7	(225,809)
Difference between expected/actual return on assets	539,367	06/30/2022	5.0	107,873
Changes in assumptions or other inputs	155,101	06/30/2022	2.7	57,445
			<i>Total</i>	<i>(117,163)</i>

¹³ Charge/(Credit) included in OPEB Expense.

Funding Schedules

There are many ways to approach the pre-funding of retiree healthcare benefits. In the sections above, we determined the annual expense for all District-paid benefits. The expense is an orderly methodology, developed by the GASB, to account for retiree healthcare benefits. However, the GASB 75 expense has no direct relation to amounts the District may set aside to pre-fund healthcare benefits.

The table on the next page provides the District with three alternative schedules for funding (as contrasted with expensing) retiree healthcare benefits. The schedules all assume that the retiree fund earns, or is otherwise credited with, 6.00% per annum on its investments, a starting Trust value of \$2,408,599 as of July 1, 2022, and that contributions and benefits are paid mid-year.

The schedules are:

1. A level contribution amount for the next 20 years.
2. A level percent of the Unfunded Accrued Liability.
3. A constant percentage (3.00%) increase for the next 20 years.

We provide these funding schedules to give the District a sense of the various alternatives available to it to pre-fund its retiree healthcare obligation. The three funding schedules are simply three different examples of how the District may choose to spread its costs.

By comparing the schedules, you can see the effect that early pre-funding has on the total amount the District will eventually have to pay. Because of investment earnings on fund assets, the earlier contributions are made, the less the District will have to pay in the long run. Of course, the advantages of pre-funding will have to be weighed against other uses of the money.

The table on the following page shows the required annual outlay under the pay-as-you-go method and each of the above schedules. **The three funding schedules include the "pay-as-you-go" costs; therefore, the amount of pre-funding is the excess over the "pay-as-you-go" amount.**

The current fund value is sufficient to meet all future estimated "pay-as-you-go" amounts for current members (closed group).

Treatment of Implicit Subsidy

We exclude any implicit subsidy from these funding schedules because we do not recommend that the District pre-fund for the full age-adjusted costs reflected in the liabilities shown in the first section of this report. If the District's premium structure changes in the future to explicitly charge under-age 65 retirees for the full actuarial cost of their benefits, this change will be offset by a lowering of the active employee rates (all else remaining equal), resulting in a direct reduction in District operating expenses on behalf of active employees from that point forward. For this reason, among others, we believe that pre-funding of the full GASB liability would be redundant.

Funding Schedules (continued)

Sample Funding Schedules (Closed Group) Starting Trust Value of \$2,408,599 as of July 1, 2022

Year Beginning	Pay-as-you-go	Level Contribution for 20 years	Level % of Unfunded Liability	Constant Percentage Increase for 20 years
2022	\$104,340	\$0	\$0	\$0
2023	111,329	0	0	0
2024	123,179	0	0	0
2025	135,343	0	0	0
2026	131,272	0	0	0
2027	140,821	0	0	0
2028	150,847	0	0	0
2029	149,819	0	0	0
2030	151,678	0	0	0
2031	153,061	0	0	0
2032	149,455	0	0	0
2033	152,378	0	0	0
2034	155,404	0	0	0
2035	163,597	0	0	0
2036	172,194	0	0	0
2037	166,719	0	0	0
2038	172,683	0	0	0
2039	154,751	0	0	0
2040	157,523	0	0	0
2041	159,825	0	0	0
2042	144,538	0	0	0
2043	144,414	0	0	0
2044	143,802	0	0	0
2045	134,827	0	0	0
2046	132,526	0	0	0
2047	129,791	0	0	0
2048	126,653	0	0	0
2049	123,180	0	0	0
2050	119,422	0	0	0
2055	97,609	0	0	0
2060	72,099	0	0	0
2065	47,058	0	0	0
2070	26,528	0	0	0
2075	11,782	0	0	0
2080	3,368	0	0	0
2085	493	0	0	0
2090	9	0	0	0

Note to auditor: when calculating the employer OPEB contribution for the year ending on the statement date, we recommend multiplying the actual District-paid premiums on behalf of retirees by a factor of 1.1198 to adjust for the implicit subsidy.

Plan Provisions

The District provides health benefits for employees, retirees and their dependents with a choice of medical plans through the Association of California Water Agencies (ACWA) Joint Powers Insurance Authority. Employees and retirees select from the same plans. Retired employees (hired prior to July 1, 2012) who are at least 55 years of age are eligible for these health and welfare benefits based on their years of fulltime accrued service. There are two benefit tiers for the years of accrued service:

Tier 1: Employees retiring with a minimum of 10 consecutive years of full-time service with the District earn medical coverage on the following terms: The District will pay for retiree only coverage or couples coverage on the same basis as active employees. Retiree and spouse/domestic partner have the option to continue dental and vision benefits at their own cost and COBRA coverage is offered. Upon becoming Medicare eligible, the retiree must enroll and transition to Medicare coverage. The District will reimburse retiree only up to the annual cap of \$3,080.82 for a Medicare Advantage Plan, supplemental Medigap insurance policy, Medicare Prescription Drug Insurance or Medicare Part B coverage. If a spouse or domestic partner survives a retiree their coverage will continue until remarriage, enrollment in another plan or becoming Medicare eligible.

Tier 2: Employees retiring after a minimum of 25 consecutive years of full-time service with the District earn medical, dental and vision benefits on the following terms: The District pays Medical premiums for retiree or couples on the same basis as active employees. The District pays the following for dental and vision coverage: Dental for retiree only 90%; couples coverage 80%. Vision coverage for retiree only 100%; couples coverage 80%. Retirees and their spouses are required to enroll in Medicare Parts A and B upon eligibility. The District will reimburse both retiree and spouse or domestic partner for Medicare Part B premium. If a spouse or domestic partner survives a retiree, their coverage will continue until remarriage or enrollment in another plan.

The following guidelines apply to both tiers:

1. The District does not make contributions to Health Savings Accounts on behalf of retirees.
2. Reenrollment is not permitted if a retiree discontinues medical coverage.
3. Annual open enrollment is not permitted for retirees.
4. Reimbursement requires proper verification and is made on a quarterly to yearly basis.

Employees hired on or after July 1, 2012 are ineligible for District-paid retiree health and welfare benefits.

Plan Provisions (continued)

The following tables summarize the total monthly premiums for selected healthcare coverages for the 2022 calendar year:

Employees and Early Retirees	Blue Cross HMO	Blue Cross Classic PPO	Kaiser HMO	Delta Dental PPO	Vision
Employee/Retiree	\$925.25	\$815.94	\$681.82	\$53.05	\$23.66
Emp./Ret. + 1	1,850.50	1,631.87	1,346.64	89.30	23.66
Emp./Ret. + 2+	2,451.92	2,162.23	1,898.45	135.86	23.66

Medicare-eligible Retirees	UHC Medicare Advantage	Kaiser Senior Advantage	Delta Dental PPO	Vision
Retiree	\$392.49	\$180.98	\$53.05	\$14.76
Retiree + 1	784.98	344.96	89.30	23.46

Valuation Data

Retiree Census - Age distribution of retirees included in the valuation

Age	Total
Under 55	0
55-59	0
60-64	3
65-69	2
70-74	3
75-79	2
80-84	2
85+	1
All Ages	13
Average Age	72.6

Active Census - Age/service distribution of active employees included in the valuation

Age	Years of Service								Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
<25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	1	0	0	0	0	0	1
45-49	0	0	2	0	0	0	0	0	2
50-54	0	0	1	1	0	0	0	0	2
55-59	0	0	0	0	0	0	1	1	2
60-64	0	0	0	1	0	1	0	0	2
65+	0	0	0	0	0	0	0	0	0
All Ages	0	0	4	2	0	1	1	1	9

Average Age: 53.4
Average Service: 20.6

Actuarial Assumptions

The liabilities set forth in this report are based on the actuarial assumptions described in this section.

Valuation Date: July 1, 2022

Actuarial Cost Method: Entry Age, Level Percent of Pay

Discount Rate:

Long-term Expected Return	6.00%
Municipal Bond Index	3.69%
GASB 75	6.00%

Salary Increases: 3.00%

Withdrawal: Crocker-Sarason Table T5 less mortality, increased by 100% at all ages.
Sample Rates:

Age	Rate
25	15.4%
35	12.6
45	8.0
55	1.9

Pre-retirement Mortality: Preretirement Mortality Rates for Public Agency Miscellaneous from CalPERS Experience Study (2000-2019).

Postretirement Mortality: Post-retirement Mortality Rates for Public Agency Miscellaneous from CalPERS Experience Study (2000-2019).

Retirement:

Age	Rate
55	7.0%
56	8.0%
57	9.0%
58	10.0%
59	15.0%
60	20.0%
61	25.0%
62	30.0%
63	35.0%
64	40.0%
65	50.0%
66	60.0%
67	70.0%
68	80.0%
69	90.0%
70	100.0%

Actuarial Assumptions (continued)

Medical Claim Cost: Annual Per Retiree or Spouse

Age	Medical	Dental and Vision
50	\$10,198	\$814
55	11,938	814
60	13,974	814
64	15,850	814
65	4,108	814
70	4,426	814
75	4,768	814

Percent Electing Coverage: 100%

Spouse Coverage: Future retirees: 60%
 Current retirees: Actual dependent data used.
 Female spouses are assumed to be three years younger than male spouses.

Medical Trend:

Year	Pre-Medicare	Medicare	Dental/Vision
2022	6.50%	4.50%	3.50%/ 2.50%
2023	6.00%	4.50%	3.50%/ 2.50%
2024	5.50%	4.50%	3.50%/ 2.50%
2025-2030	5.30%	4.50%	3.50%/ 2.50%
2031-2040	5.50%	4.50%	3.50%/ 2.50%
2041-2050	5.20%	4.50%	3.50%/ 2.50%
2051-2060	5.10%	4.50%	3.50%/ 2.50%
2061-2069	5.00%	4.50%	3.50%/ 2.50%
2070+	4.50%	4.50%	3.50%/ 2.50%

Actuarial Certification

The results set forth in this report are based on our actuarial valuation of the health and welfare benefit plans of the Municipal Water District of Orange County ("District") as of July 1, 2022.

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the District. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the District, and (when applicable) trust statements prepared by the trustee and provided to us by the District.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 74 and GASB 75, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits.

Throughout the report, we have used unrounded numbers, because rounding and the reconciliation of the rounded results would add an additional, and in our opinion unnecessary, layer of complexity to the valuation process. By our publishing of unrounded results, no implication is made as to the degree of precision inherent in those results. Clients and their auditors should use their own judgment as to the desirability of rounding when transferring the results of this valuation report to the clients' financial statements.

Each undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:

A handwritten signature in blue ink, appearing to read 'Carlos Diaz', with a stylized flourish at the end.

Carlos Diaz, ASA, EA, MAAA
Actuary



GASB Statement No. 75

Supplemental Schedules for Municipal Water District of Orange County

<i>Reporting Period:</i>	<i>July 1, 2021 to June 30, 2022</i>
<i>Measurement Period:</i>	<i>July 1, 2021 to June 30, 2022</i>
<i>Valuation Date:</i>	<i>July 1, 2022 (June 30, 2022)</i>

September 28, 2022

**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Note to Auditors

DFA, LLC (DFA) has prepared the following supplemental schedules to accompany the District's actuarial valuation as of July 1, 2022 (June 30, 2022) to (1) facilitate preparation of GASB 75 reporting and (2) to provide information that (if applicable) was not determinable as of the valuation date. We have prepared this supplement based on the results of our actuarial valuation and (if applicable) subsequent projections. We are available to discuss and reconcile any differences between your records and our calculations.

Our actuarial valuation report is intended to comply with GASB 75's valuation requirements (at least one every two years); the following schedules are intended to provide the reporting information specific to the applicable reporting period (July 1, 2021 to June 30, 2022), with updates to the measurement date (June 30, 2022).

Notes to the Financial Statements for the Year Ended June 30, 2022

Plan Description

Plan administration. The District provides health insurance for its retired employees and their spouses (if married and covered on the District's plan at time of retirement), or domestic partner in accordance with Board policy. The following parties are responsible for administration of the Health Plan:

- Public Agency Retirement Services (PARS) serves as Trust Administrator and Consultant
- US Bank serves as Trustee, and
- HighMark Capital Management (HighMark) serves as Investment Manager..

Benefits provided. The District provides health benefits for employees, retirees and their dependents with a choice of medical plans through the Association of California Water Agencies (ACWA) Joint Powers Insurance Authority. Employees and retirees select from the same plans. Retired employees (hired prior to July 1, 2012) who are at least 55 years of age are eligible for these health and welfare benefits based on their years of full-time accrued service. There are two benefit tiers for the years of accrued service:

Tier 1: Employees retiring with a minimum of 10 consecutive years of full-time service with the District, earn medical coverage on the following terms: The District will pay for Retiree only or couples coverage on the same basis as active employees. Retiree and spouse/domestic partner have the option to continue dental and vision benefits at their own cost and COBRA coverage is offered. Upon becoming Medicare eligible, the retiree must enroll and transition to Medicare coverage. The District will reimburse retiree only up to the annual cap of \$3,080.82 for a Medicare Advantage Plan, a supplemental Medigap insurance policy, Medicare Prescription Drug Insurance or Medicare Part B coverage. If a spouse or domestic partner survives a retiree, their coverage will continue until remarriage, enrollment in another plan or becoming Medicare eligible.

Tier 2: Employees retiring with a minimum of 25 consecutive years of full-time service with the District, earn medical, dental and vision benefits on the following terms: The District will pay for retiree only or couples coverage on the same basis as active employees. The District pays the following for dental and vision coverage: Dental for retiree only 90%; couples coverage 80%. Vision coverage for retiree only 100%; couples coverage 80%. Retirees and their spouses/domestic partner are required to enroll in Medicare Parts A and B upon eligibility. The District will reimburse for Medicare Part B for both retiree and their eligible spouse/domestic partner. If a spouse or domestic partner survives a retiree, their coverage will continue until remarriage or enrollment in another plan.



**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

The following guidelines apply to both tiers:

1. The District does not make contributions to Health Savings Accounts on behalf of retirees.
2. Reenrollment is not permitted if a retiree discontinues medical coverage.
3. Annual open enrollment is not permitted for retirees.
4. Reimbursement requires proper verification and is made on a quarterly to yearly basis.

Employees hired on or after July 1, 2012 are ineligible for District-paid retiree health and welfare benefits.

Plan membership. On July 1, 2022, the most recent valuation date, membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments	13
Active plan members	9

Contributions. The contribution requirements of Health Plan members and the District are established, and may be amended, by the District's Board of Directors. The District has fully funded the OPEB obligation with the addition of an OPEB Designated Reserve account.



**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Net OPEB Liability

The District's Net OPEB Liability was measured as of June 30, 2022 and the Total OPEB Liability used to calculate the Net OPEB Liability was determined by an actuarial valuation as of July 1, 2022 (June 30, 2022). Standard actuarial update procedures were used to project/discount from valuation to measurement dates.

Actuarial assumptions. The total OPEB liability was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Actuarial cost method	Entry Age, Level Percent of Pay
Valuation of fiduciary net position	Fair value of assets.
Recognition of deferred inflows and outflows of resources	Closed period equal to the average of the expected remaining service lives of all employees provided with OPEB
Salary increases	3.00 percent
Inflation rate	3.00 percent
Investment rate of return	6.00 percent, net of OPEB plan investment expense
Healthcare cost trend rate	6.50 percent for 2022 decreasing to 5.30 percent for 2025-2030, 5.50 percent for 2031-2040, 5.20 percent for 2041-2050, 5.10 for 2051-2060, 5.00 percent for 2061-2069, and 4.50 percent for 2070 and later years; Medicare ages: 4.50 percent for all years.
Preretirement Mortality	Preretirement Mortality Rates from CalPERS Experience Study (2000-2019).
Postretirement Mortality	Post-retirement Mortality Rates for Healthy Recipients from CalPERS Experience Study (2000-2019).

Actuarial assumptions used in the July 1, 2022 valuation were based on a review of plan experience during the period July 1, 2020 to June 30, 2022.

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. The calculated investment rate of return was set equal to the expected ten-year compound (geometric) real return plus inflation (rounded to the nearest 25 basis points, where appropriate). The table below provides the long-term expected real rates of return by asset class (based on published capital market assumptions).

Asset Class	Assumed Asset Allocation	Real Rate of Return
Broad U.S. Equity	50%	4.4%
U.S. Fixed	50%	1.1%

**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Discount rate. GASB 75 requires a discount rate that reflects the following:

- a) The long-term expected rate of return on OPEB plan investments – to the extent that the OPEB plan's fiduciary net position (if any) is projected to be enough to make projected benefit payments and assets are expected to be invested using a strategy to achieve that return.
- b) A yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher – to the extent that the conditions in (a) are not met.

To determine a resulting single (blended) rate, the amount of the plan's projected fiduciary net position (if any) and the amount of projected benefit payments is compared in each period of projected benefit payments. The discount rate used to measure the District's Total OPEB liability is based on these requirements and the following information:

Reporting Date	Measurement Date	Long-Term Expected Return of Plan Investments	Fidelity GO AA 20 Years Municipal Index	Discount Rate
June 30, 2021	June 30, 2021	6.00%	1.92%	6.00%
June 30, 2022	June 30, 2022	6.00%	3.69%	6.00%



**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

The components of the net OPEB liability were as follows:

Total OPEB liability	2,304,315
Plan fiduciary net position	2,408,599
Net OPEB liability (asset)	\$(104,284)
Measurement date	June 30, 2022
Reporting date	June 30, 2022
Covered employee payroll	\$1,351,622
Net OPEB liability (asset) as a percentage of covered payroll	-7.72%
Plan fiduciary net position as a percentage of the total OPEB liability	104.53%

Schedule of Changes in Net OPEB Liability (June 30, 2021 to June 30, 2022)

Total OPEB Liability	
Service Cost	15,920
Interest	159,271
Changes of benefit terms	0
Difference between expected and actual experience	(609,684)
Changes in assumptions or other inputs	155,101
Benefit payments ¹	(108,197)
Net change in total OPEB liability	(387,589)
Total OPEB liability – June 30, 2021 (a)	\$2,691,904
Total OPEB liability – June 30, 2022 (b)	\$2,304,315
Plan fiduciary net position	
Contributions – employer ¹	108,197
Other income – adjustment	0
Net investment income	(356,249)
Benefit payments ¹	(108,197)
Trustee fees	0
Administrative expenses	(16,252)
Other disbursements – reimbursement to employer	0
Net change in plan fiduciary net position	(372,501)
Plan fiduciary net position – June 30, 2021 (c)	\$2,781,100
Plan fiduciary net position – June 30, 2022 (d)	\$2,408,599
Net OPEB liability (asset) – June 30, 2021 (c) – (a)	\$(89,196)
Net OPEB liability (asset) – June 30, 2022 (d) – (b)	\$(104,284)

¹ Amount includes any implicit subsidy associated with benefits paid (see Footnote 4).

**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Sensitivity of the net OPEB liability to changes in the discount rate. The following presents the net OPEB liability, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage-point higher than the current discount rate:

	1% Decrease (5.00%)	Discount Rate (6.00%)	1% Increase (7.00%)
Net OPEB liability (asset)	186,023	(104,284)	(344,853)

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The following presents the net OPEB liability, as well as what the net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

	1% Decrease ²	Trend Rate	1% Increase ³
Net OPEB liability (asset)	(321,893)	(104,284)	159,289

² Trend rate for each future year reduced by 1.00 percent.

³ Trend rate for each future year increased by 1.00 percent.



**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Statement of Fiduciary Net Position

Assets	
Cash, deposits, and cash equivalents	0
Receivables:	
Accrued Income	0
Total receivables	0
Investments:	
Managed account	2,408,599
Total Investments	2,408,599
Total Assets	2,408,599
Liabilities	
Payables	0
Total Liabilities	0
Net position restricted for postemployment benefits other than pensions	\$2,408,599
Measurement date	June 30, 2022
Reporting date	June 30, 2022

Statement of Changes in Fiduciary Net Position

Additions	
Employer contributions ⁴	108,197
Other income – adjustment	0
Net increase (decrease) in fair value of investments	(356,249)
Total additions	(248,052)
Deductions	
Trustee fees	0
Administrative expenses	16,252
Benefit payments ⁴	108,197
Other disbursements – reimbursement to employer	0
Total deductions	124,449
Net increase (decrease) in net position	(372,501)
Net position restricted for postemployment benefits other than pensions	
Beginning of year – June 30, 2021	\$2,781,100
End of year – June 30, 2022	\$2,408,599

⁴ Includes an implicit subsidy credit as follows:

	Trust	Non-Trust	Total
Employer contribution	\$0	\$85,275	\$85,275
Implicit subsidy credit	0	22,922	22,922
Total employer contributions	\$0	\$108,197	\$108,197
Benefit payments	\$0	\$85,275	\$85,275
Implicit subsidy credit	0	22,922	22,922
Total benefit payments	\$0	\$108,197	\$108,197



**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Investments

Investment policy. The District's policy regarding the allocation of the plan's invested assets is established and may be amended by District management. The current investment selection is the Moderate HighMark PLUS. The dual goals of the Moderate Strategy are growth of principal and income. It is expected that dividend and interest income will comprise a significant portion of total return, although growth through capital appreciation is equally important. The portfolio will be allocated between equity and fixed income investments.

<i>Strategic Asset Allocation Ranges</i>			
	Cash	Fixed Income	Equity
Stated Range	0-20%	40%-60%	40%-60%

Rate of return. For the year ended on the measurement date, the annual money-weighted rate of return on investments, net of investment expense, was -12.87 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts invested.

Annual money-weighted rate of return, net of investment expense	-12.87%
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**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

On June 30, 2022, the District's deferred outflows of resources and deferred inflows of resources to OPEB from the following sources are:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience ^{5,6}	0	383,875
Changes in assumptions or other inputs ^{5,6}	97,656	0
Differences between projected and actual return investments ^{5,6}	455,048	216,682
Total	\$552,704	\$600,557

⁵ Measured on June 30, 2022.

⁶ See Schedule of Deferred Outflows and Inflows of Resources for additional information.

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Fiscal Year ending June 30:	Deferred Outflows of Resources	Deferred Inflows of Resources
2023	177,096	(299,349)
2024	159,860	(229,636)
2025	107,873	(71,572)
2026	107,875	0
2027	0	0
2028	0	0
2029	0	0
2030	0	0

**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan
GASB 75 Disclosure Information**

Schedule of Deferred Outflows of Resources

Year	Type	Category	Initial Base	Amortization Period	Current Recognition	Current Balance
2017	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2017	Deferred Outflow	Changes in assumptions or other inputs	0	0.0	0	0
2017	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2018	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2018	Deferred Outflow	Changes in assumptions or other inputs	0	0.0	0	0
2018	Deferred Outflow	Net difference between projected and actual earnings on plan investments	269	5.0	53	0
2019	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2019	Deferred Outflow	Changes in assumptions or other inputs	0	0.0	0	0
2019	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2020	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2020	Deferred Outflow	Changes in assumptions or other inputs	102,437	2.9	31,791	0
2020	Deferred Outflow	Net difference between projected and actual earnings on plan investments	58,888	5.0	11,778	23,554
2021	Deferred Outflow	Difference between expected and actual experience	0	0.0	0	0
2021	Deferred Outflow	Changes in assumptions or other inputs	0	0.0	0	0
2021	Deferred Outflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2022	Deferred Outflow	Difference between expected and actual experience	0	2.7	0	0
2022	Deferred Outflow	Changes in assumptions or other inputs	155,101	2.7	57,445	97,656
2022	Deferred Outflow	Net difference between projected and actual earnings on plan investments	539,367	5.0	107,873	431,494
			Total		208,940	552,704



**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan
GASB 75 Disclosure Information**

Schedule of Deferred Inflows of Resources

Year	Type	Category	Initial Base	Amortization Period	Current Recognition	Current Balance
2017	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2017	Deferred Inflow	Changes in assumptions or other inputs	0	0.0	0	0
2017	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2018	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2018	Deferred Inflow	Changes in assumptions or other inputs	0	0.0	0	0
2018	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2019	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2019	Deferred Inflow	Changes in assumptions or other inputs	0	0.0	0	0
2019	Deferred Inflow	Net difference between projected and actual earnings on plan investments	9,854	5.0	1,971	1,970
2020	Deferred Inflow	Difference between expected and actual experience	86,201	2.9	26,753	0
2020	Deferred Inflow	Changes in assumptions or other inputs	0	0.0	0	0
2020	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	0.0	0	0
2021	Deferred Inflow	Difference between expected and actual experience	0	0.0	0	0
2021	Deferred Inflow	Changes in assumptions or other inputs	0	0.0	0	0
2021	Deferred Inflow	Net difference between projected and actual earnings on plan investments	357,852	5.0	71,570	214,712
2022	Deferred Inflow	Difference between expected and actual experience	609,684	2.7	225,809	383,875
2022	Deferred Inflow	Changes in assumptions or other inputs	0	2.7	0	0
2022	Deferred Inflow	Net difference between projected and actual earnings on plan investments	0	5.0	0	0
				Total	326,103	600,557



**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

OPEB Expense

The District's OPEB expense was \$(108,838).

Net OPEB Liability (Asset) – beginning (a)	\$(89,196)
Net OPEB Liability (Asset) – ending (b)	\$(104,284)
Change in Net OPEB Liability (Asset) [(b)-(a)]	(15,088)
Change in Deferred Outflows	(485,528)
Change in Deferred Inflows	283,581
Employer Contributions	108,197
Adjustment – Transfer In (Employer Reimbursement)	0
Adjustment – OPEB Expense	0
OPEB Expense (Credit) – June 30, 2021 to June 30, 2022	\$(108,838)

Service Cost	15,920
Interest Cost	159,271
Expected Return on Assets	(166,866)
Changes of benefit terms	0
Recognition of Deferred Outflows and Inflows	
Differences between expected and actual experience	(252,562)
Changes of assumptions	89,236
Differences between projected and actual investments	46,163
Total	(117,163)
Adjustment	0
OPEB Expense (Credit) – June 30, 2021 to June 30, 2022	\$(108,838)

Actuarially Determined Contribution

The actuarially determined contributions from the most recent actuarial valuation are:

Actuarially Determined Contribution for year ending June 30, 2023 ⁷	\$13,122
Actuarially Determined Contribution for year ending June 30, 2024 ⁷	13,516

Valuation Date	July 1, 2022
Discount Rate (Expected Long-term Return on Assets)	6.00%
Salary Increases	3.00%

⁷ For purposes of reporting the comparison between actual employer OPEB contributions and the actuarially determined contribution, we recommend adjusting actual employer OPEB contributions for any associated implicit subsidy. Adjustments should equal the amount of actual District-paid premiums on behalf of retirees (from trust and non-trust) multiplied by a factor of 0.1198.

**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Journal Entries⁸

OPEB Expense Journal Entries - June 30, 2022 Reporting Date

		Debit	Credit
Differences between Expected and Actual Experience	Deferred Outflows	\$0	\$0
	Deferred Inflows	0	(357,122)
Change in Assumptions and Other Inputs	Deferred Outflows	65,865	0
	Deferred Inflows	0	0
Differences between Projected and Actual Investment Earnings	Deferred Outflows	238,366	0
	Deferred Inflows	254,838	0
Net OPEB Liability/(Asset)		0	(93,109)
OPEB Expense/(Credit)		0	(108,838)
Total		\$559,069	\$(559,069)

Employer Contribution Journal Entries - June 30, 2022 Reporting Date

	Debit	Credit
Contributions paid July 1, 2021 to June 30, 2022	\$108,197	\$0
		(22,922)
	0	(85,275)
Total	\$108,197	\$(108,197)

⁸ Provided for illustrative purpose. Actual entries may differ. DFA is available to discuss any differences.



**Municipal Water District of Orange County
Post-Employment Medical Benefits Plan**

GASB 75 Disclosure Information

Actuarial Certification

The results set forth in this supplement are based on our actuarial valuation of the health and welfare benefit plans of the Municipal Water District of Orange County as of July 1, 2022 (June 30, 2022).

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the District. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the District, and (when applicable) trust statements prepared by the trustee and provided to us by the District.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 74 and GASB 75, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits.

Each undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:

A handwritten signature in blue ink, appearing to read 'Carlos Diaz', is written over a horizontal line.

Carlos Diaz, ASA, EA, MAAA
Actuary

Hilary Chumpitazi
Accounting Manager
Municipal Water District of Orange County
P.O. Box 20895
Fountain Valley, CA 92728



INFORMATION ITEM

October 12, 2022

TO: Administration & Finance Committee
(Directors Seckel, Thomas, Dick)

FROM: Robert Hunter, General Manager

Staff Contact: Harvey De La Torre, Assistant General Manager

SUBJECT: UPDATE REGARDING MWDOC MEMBER AGENCY FACILITATED DISCUSSIONS

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee receive and file this report.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

Thus far, MWDOC has held four member agency facilitated discussion workgroup meetings (June 30, July 25, September 6, and October 4) as part of Phase II. Mr. Paul Brown, of Paul Redvers Brown Inc. is facilitating the workgroup meeting discussions to encourage a productive dialogue among all the member agencies to ensure all of the issues and concerns are incorporated.

Previous Workgroup Meetings

The first workgroup meeting initiated the Phase II process by seeking to build off the input received from the interviews and discussions with the member agencies from Phase I. In addition, there was a robust discussion on the approach and scope for better defining MWDOC's role and responsibility in Orange County as well as MWDOC's relationship among its member agencies.

Budgeted (Y/N): N/A	Budgeted amount: None	Core __	Choice __
Action item amount: N/A		Line item:	
Fiscal Impact (explain if unbudgeted):			

The workgroup discussed and identified topics and preliminary hierarchy of issues to engage. The consensus was to start with high level issues such as MWDOC's relationship with the member agencies.

The second workgroup meeting included MWDOC Board members Seckel and McVicker in the role of listening and understanding the member agencies' concerns and issues. It was suggested that the workgroup may not want to limit MWDOC's role but rather define a "process" or set of expectations from MWDOC to ensure an open and transparent dialogue with the member agencies occur before any decisions are made.

There was also a healthy discussion regarding how to ensure the member agencies concerns are heard; and that the expectations are clearly understood on how MWDOC deliberates on such decisions.

The third workgroup centered around a discussion on needs and expectations in three reoccurring challenges that arose in Phase I of the facilitated discussions; (1) MWDOC's role in *Water Supply Planning*; (2) MWDOC's role in *Water Supply Development*; and (3) MWDOC's representation at Metropolitan. Dialogue was centered on how MWDOC can improve its deliberation process on key local and Metropolitan decisions, as well as how MWDOC considers, understands, and incorporates member agency priorities.

Workgroup Meeting #4

The fourth workgroup meeting started with a review of comments from Workshop #3 on MWDOC's role in *Water Supply Planning*. The discussion was centered on member agencies' expectations of MWDOC's role in the *Water Supply Planning* process and explored at what point *Water Supply Planning* advances into *Water Supply Development* projects. It was noted that *Water Supply Planning* is a collaborative process between MWDOC and the member agencies. Discussion also highlighted that differences exist between integrated water resources planning and facility development planning.

Under the topic of *Water Supply Development*, there was substantive discussion regarding the member agency expectation that *Water Supply Development* projects follow a beneficiary pays approach. Additionally, there was discussion on inclusion of member agencies within each step of the process, where MWDOC would coordinate and collaborate with the member agencies in relation to MWDOC's role in *Water Supply Development*.

There was acknowledgement that upon the conclusion of the Phase II process, "gaps" between the needs and expectations of the member agencies and MWDOC may remain. Effort will be placed on resolving any identified "gaps" through process, communication, and collaboration improvements.

In workgroup #5 Mr. Brown will present the information collected and summarize the key themes from the previous workshops.

Attachment: *MWDOC Member Agencies Facilitated Discussion #4 Presentation, October 4, 2022*

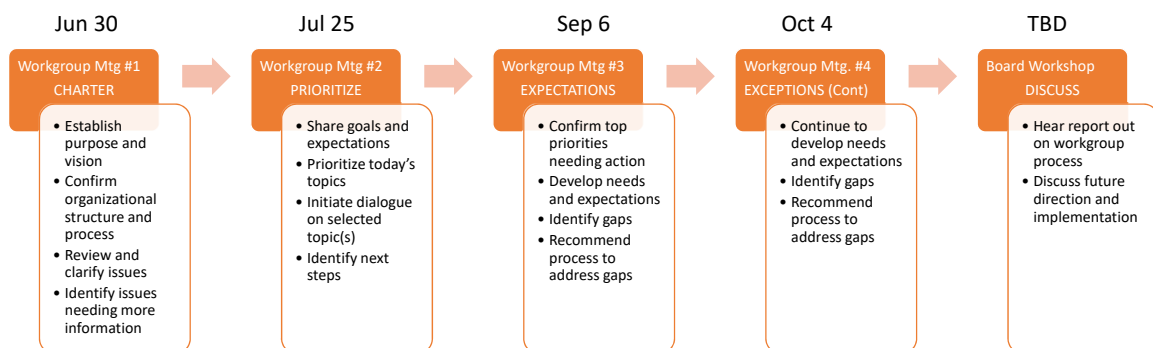
Facilitated Discussions with MWDOC Member Agencies

WORKGROUP MTG #4 Discussing Expectations (Continued)

PAUL R. BROWN, AICP



Phase 2 Proposed Workgroup Meetings



Agenda of Workgroup Meeting #4

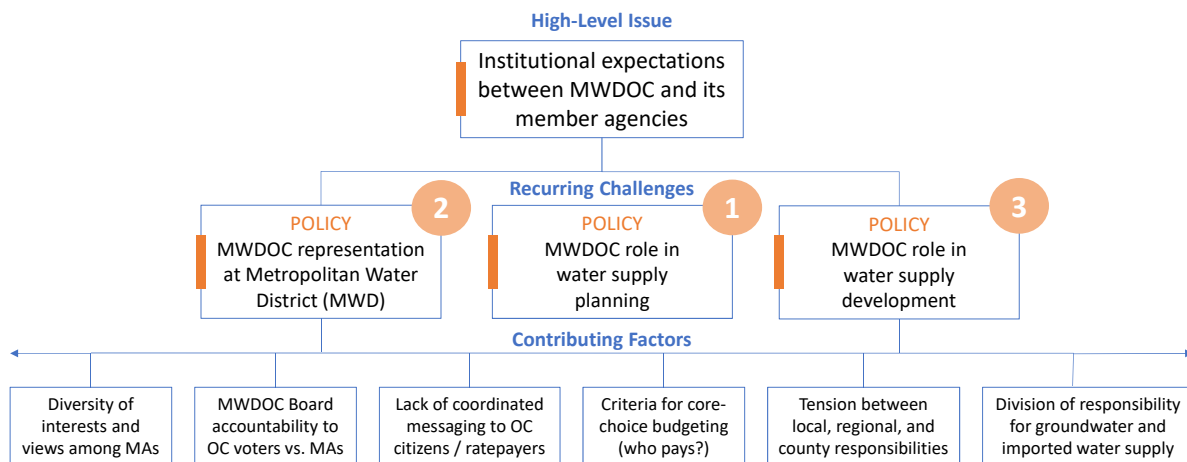
- Review Meeting #3 input
- Continue discussing needs and expectations
- Identify expectation gaps and agreements
- Define next steps

Debate Versus Dialogue

Debate	Dialogue
Assuming that there is a right answer and you have it	Assuming that many people have pieces of the answer and that together they can craft a solution
Combative: participants attempt to prove the other side wrong	Collaborative: participants work together toward common understanding
About winning	About exploring common ground
Listening to find flaws and make counterarguments	Listening to understand, find meaning and agreement
Defending assumptions as truth	Revealing assumptions for reevaluation
Critiquing the other side's position	Reexamining all positions
Defending one's own views against those of others	Admitting that others' thinking can help improve on one's own

Source: Daniel Yankelovich, *The Magic of Dialogue: Transforming Conflict into Cooperation*, 1999

Hierarchy of Issues



Water Supply PLANNING

Mission Statement: To provide reliable, high-quality supplies from the Metropolitan Water District of Southern California (Metropolitan) and other sources to meet present and **future needs**, at an **equitable and economical cost**, and to promote water use efficiency **for all of Orange County**.

	Needs	Expectations
MWDOC Board and Management	<ul style="list-style-type: none"> Need analysis for future reliable supply. 	<ul style="list-style-type: none"> Expect that member agencies provide feedback on issues in a timely manner. Expect more conversation on issues.
Member Agency Managers	<ul style="list-style-type: none"> Need to better understand the relationship between MWDOC and MAs. Need to understand MET supply at a regional level (P&O good example) Need to be treated as customers of MWDOC. 	<ul style="list-style-type: none"> Place for MWDOC to evaluate future supply reliability. Information provided in a timely manner to provide feedback. Expect that MWDOC understands MA priorities and takes those into consideration when making decisions. MWDOC keeping MA's informed of reliability of imported supply MWDOC Board and staff think about issues from the customer perspective

Water Supply PLANNING (cont.)

	Needs	Expectations
MWDOC Board and Management	•	•
Member Agency Managers	•	•

Water Supply DEVELOPMENT

Mission Statement: To **provide reliable, high-quality supplies from** the Metropolitan Water District of Southern California (Metropolitan) **and other sources** to meet present and future needs, at an **equitable and economical cost**, and to promote water use efficiency **for all of Orange County**.

	Needs	Expectations
MWDOC Board and Management	• Ex.	• Ex. Expect MWDOC to assist in developing needed projects benefiting multiple agencies
Member Agency Managers	•	• Ex. Do not expect MWDOC to own and operate infrastructure and facilities

Water Supply DEVELOPMENT (cont.)

	Needs	Expectations
MWDOC Board and Management	•	•
Member Agency Managers	•	•

MWDOC representation at Metropolitan

Mission Statement: To provide reliable, **high-quality supplies from the Metropolitan Water District of Southern California (Metropolitan)** and other sources to meet present and future needs, at an **equitable and economical cost**, and to promote water use efficiency **for all of Orange County**.

	Needs	Expectations
MWDOC Board and Management	<ul style="list-style-type: none"> • Need for a financially healthy and stable MET. 	<ul style="list-style-type: none"> • Expect the MWDOC & OC delegation to vote together on key MET issues. • Expect directors to look at what's best for "MET" while taking into consideration O.C.'s position
Member Agency Managers	<ul style="list-style-type: none"> • Need to understand MET director policy positions with proposed MWDOC positions. • Consider the development of policy positions to be advanced at MET • Need to understand why MWDOC votes a certain way. 	<ul style="list-style-type: none"> • Expect MET Directors to be as transparent as possible about their intentions. • Expect a clear understanding of MET issues, where MWDOC is at, and where MET MA's are at. • Expect detailed questions from MAs on MET issues.



MWDOC representation at Metropolitan (cont.)

	Needs	Expectations
MWDOC Board and Management	•	•
Member Agency Managers	•	•

Next Steps

- Meeting #5 – Update Board on process, input, and gaps
- Discuss process for addressing/closing gaps
- Recommend next steps



INFORMATION ITEM

October 12, 2022

TO: Administration & Finance Committee
(Directors Seckel, Thomas, Dick)

FROM: Robert Hunter, General Manager

Staff Contact: Harvey De La Torre, Assistant General Manager
Hilary Chumpitazi, Accounting Manager

SUBJECT: Update Regarding Reserve Fund Policy Discussions

STAFF RECOMMENDATION

Staff recommends the Administration & Finance Committee

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

On September 19, MWDOC held its 3rd Reserve Policy workgroup discussion with the member agency managers and the Ad Hoc Committee of MWDOC Directors (Seckel and McVicker) and facilitated by Mr. Brian Thomas. Attached for your review is a copy of the workgroup meeting #3 presentation.

The third meeting covered a review of historical reserve data including General Fund revenue and expenses, historical conservation fund balance, total cash reserves, and month-to-month change in cash reserves. From this information and analysis, the workgroup reviewed proposed changes to MWDOC's existing reserve funds.

Below are the discussed proposed changes to the Reserve Policy:

- Combining the General Operations, Grant and Project Cash Flow, and Building Reserve Fund reserves into one General Operations Reserve.
- Setting the target for the General Operations Reserve to 120 days cash-on-hand.

Budgeted (Y/N): NA	Budgeted amount: None	Core ____	Choice ____
Action item amount: NA		Line item:	
Fiscal Impact (explain if unbudgeted):			

- No changes proposed for the Election Reserve Fund, OPEB Reserve, and WEROC Reserves.

The workgroup feedback included consolidating the Building Reserve Fund into the General Operations Reserve, and modifying the target of the reserve fund from 100 days cash on-hand to 120 day cash-on-hand. Additionally, there was the request to conduct additional historical analysis on Water Use Efficiency (WUE) cash-flow during periods of drought. This will allow the workgroup to get a better understanding of the potential cash-flow gap in relation to times with active WUE expenditures. Additionally, a discussion of potential uses of unrestricted reserves was requested as a future meeting item. There appeared to be general support by the member agencies for the proposed changes presented by Mr. Thomas.

The next workgroup meeting will be scheduled for early November. In workgroup meeting #4 staff will provide additional data and analysis on WUE cash-flow in addition to an evaluation and discussion on the potential uses for unrestricted reserve funds.

Attachments: MWDOC Reserve Policy Discussion, Meeting #3 Presentation

RESERVE POLICY DISCUSSION MEETING 3

September 19, 2022

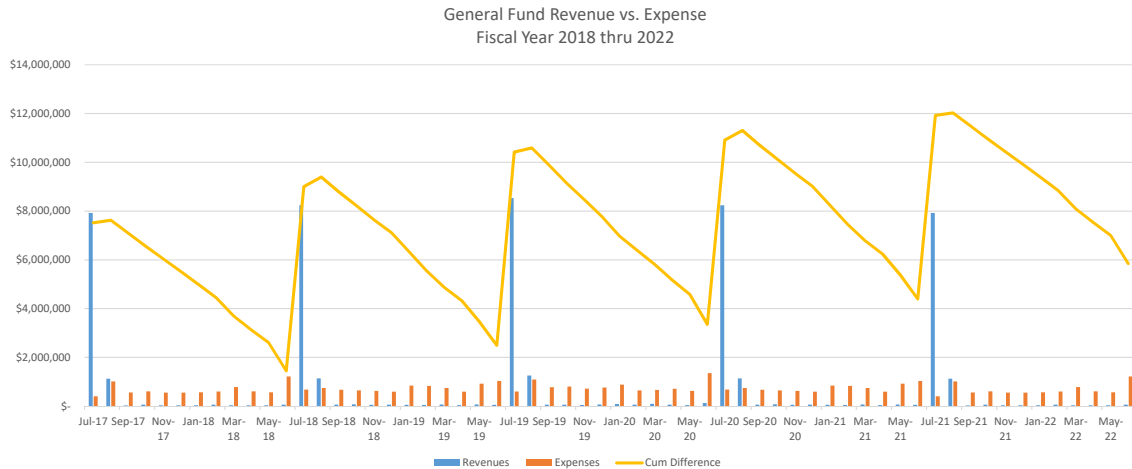


Agenda



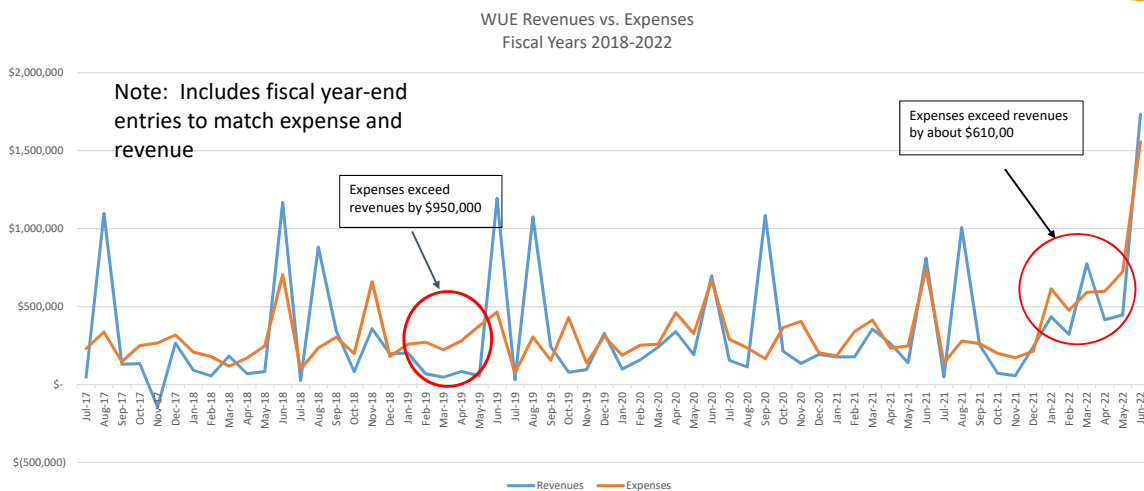
- 💧 Review Historical Data
- 💧 Discuss Changes to Existing Policy
 - 🟡 Designated Reserve Targets
 - 🟡 Use of Undesignated Reserves
- 💧 Next Steps

Five-Year General Fund Revenue vs. Expense



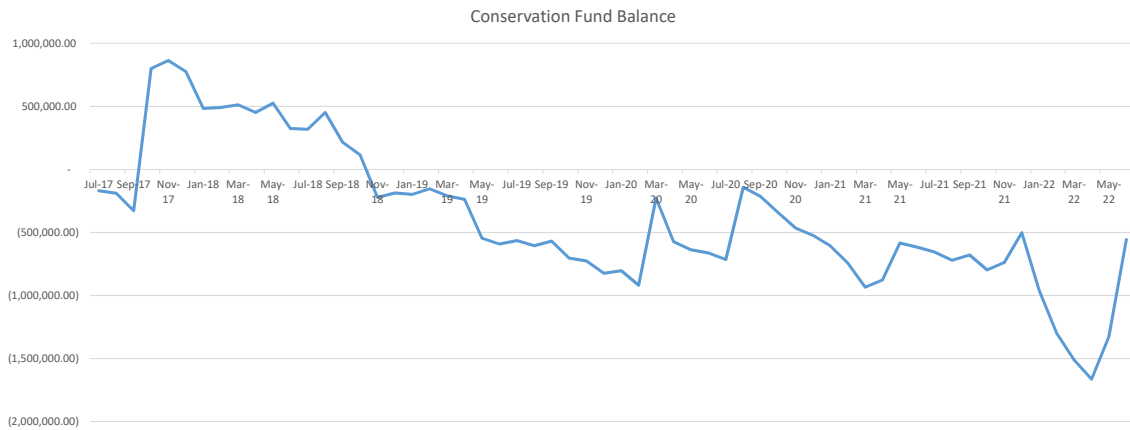
3

WUE Revenues vs. Expenses



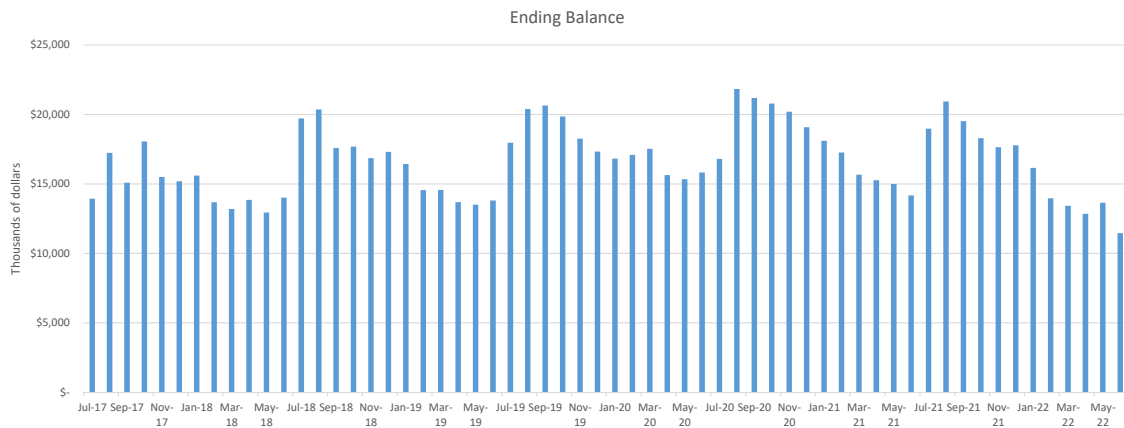
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Conservation Fund Balance



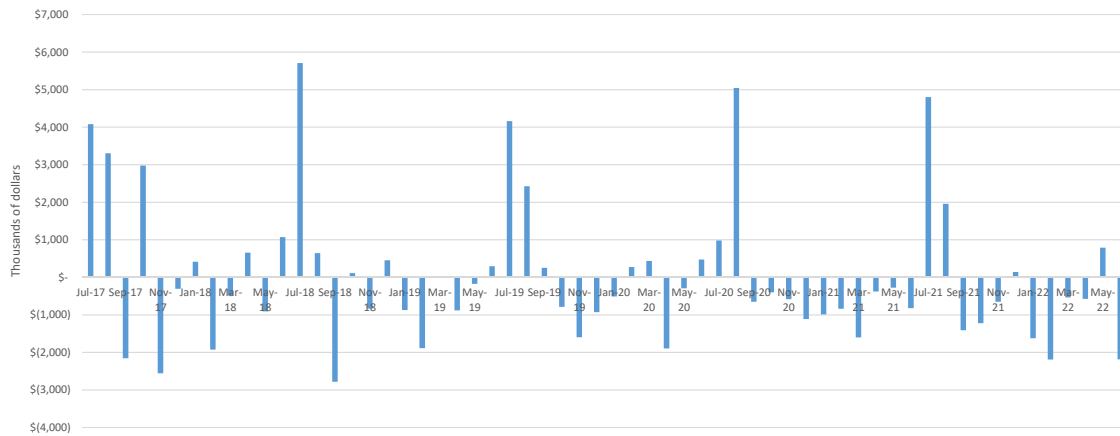
5

Total Cash Reserves



6

Change in Cash Reserves



7

No Change to Three Reserves



- Election Reserve
- OPEB Reserve
- WEROC Reserves
 - Operating
 - Capital

8

Remaining Reserves



- ⦿ **General Operating Reserve** funds are to be used as a source of working capital and to pay for unexpected and unplanned events (“rainy day” fund)
- ⦿ **Grant & Project Cash Flow** reserves ensure expenditures for grant funded projects can be made in anticipation of reimbursement from the granting authority
- ⦿ **Building Repair** reserves are to be used for repairs and maintenance of the building – a minimum balance is provided for unexpected expenses (e.g., earthquake)

9

Current Reserve Fund Targets



- ⦿ **General Operations plus Grant & Project Cash Flow** target is equal to 90-180 days cash on hand
- ⦿ **Building Repair Reserve** target balance is equal to 10-15 days cash on hand
- ⦿ **One Day Cash** is about \$36,000 (based on fiscal year end 2021 operating expenses)

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Potential Changes to Reserve Policy



- **Combine General Operations and Grant and Project Cash Flow reserves into one General Operations Reserve to meet emergency costs, unbudgeted expenditures, working capital and cash flow needs**
 - Target = 100 days cash on hand
- **Retain Building Reserve to provide cash flow and deductible for emergency repairs**
 - Set target to \$200,000

11

Amounts in Excess of Designated Reserves



- **Unrestricted reserves include commitments and carryover amounts from prior years**
- **Unrestricted reserves include the Water Supply Fund**
- **Evaluate unrestricted reserves after carryover and Water Supply Fund and use remaining funds to:**
 - Reduce pension obligation
 - Retain to fund future expenditures
 - Stabilize meter and groundwater charges
 - Other legal purposes

12



Suggestions/Comments

13

Next Steps



- **Unrestricted and Undesignated balances**
 - **General Fund** balance can be used for any lawful purpose – a portion of these funds are “carryover” from unfinished projects from prior fiscal years
 - **General Fund – Capital** funds are amounts carried over from prior capital projects, including the building remodel/retrofit project work and remaining amounts will be transferred to the General Fund
- **Identify available funds after “rebalancing” of reserves**
- **Develop staff report and recommendation**

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Administration Activities Report

September 9, 2022 – October 6, 2022

Activity	Summary
Administration/ Board	<p>Administration team worked on the following:</p> <ul style="list-style-type: none"> • Scheduled meetings for Rob Hunter, Harvey De La Torre and Board members (including Ad Hoc meetings). • Assisted Rob and Harvey with various write-ups and follow-up for the Committees and Board. • Continue to send the Water Supply Reports to the member agencies. • Processed and reviewed agreements for appropriate Board approval and insurance requirements as well as execution following approval; conferred with staff re processes. • Responded to one Public Records Act request. • Assisted legal counsel with GM performance evaluation details. • Coordinated Ethics Training and Harassment Prevention training • Worked with IT regarding Director email issues. • Prepared and distributed various Resolutions. • Prepared amendments to Administrative Code. • Filed the Conflict of Interest Code amendments with the County and completed the Declaration for Non-County Local Agencies. • Completed and filed the Public Agency Roster with the Secretary of State (for MWDOC WFC). • Prepared, processed and submitted support letter for Doheny Desal with Coastal Commission. • Solicited availability, set-up and hosted Zoom meetings for General Manager, Assistant General Manager and Director of Engineering. • Processed agreements for Engineering. • Registered Staff and Directors for various training and conferences, made travel accommodations and handled expenses. • Hosted ISDOC Executive Meeting. • Created and sent out the ISDOC Quarterly Luncheon invite with the Governmental Affairs Manager. • Corresponded with ISDOC presenters for the October Quarterly Luncheon. • Formatted letter for Governmental Affairs. • Planned and hosted events for MWDOC staff in honor of California Water Professionals Appreciation Week.
Records Management	<p>Administration Team worked on the following:</p> <ul style="list-style-type: none"> • Conducted Records Management training for new employees. • Worked on setting up on-site filing for hardcopy district agreements.

Records Management (Cont'd)	<ul style="list-style-type: none"> Continued to review incoming mail and log necessary documents into the Laserfiche system. Staff continues to review documents and update information in Laserfiche.
Health and Welfare Benefits	<ul style="list-style-type: none"> Plan materials for 2023 Health Benefits Open Enrollment are being compiled. Open Enrollment information will be reviewed with eligible participants during the week of October 17th, with open enrollment being conducted October 21-November 4
Recruitment / Departures	<ul style="list-style-type: none"> Recruitment efforts for the Water Loss Control Intern have been extended and interviews are being scheduled. Recruitment efforts to fill a Sr. Engineer/Principal Engineer position have been extended.
Projects/ Activities	<p>Administration Team worked on the following:</p> <ul style="list-style-type: none"> Continue to coordinate with the Director of Emergency Management on COVID-19 protocols, OSHA ETS and State guidelines. Hosting of Board, Committee and Department meetings via zoom. Updates were made to the District Act Database and to the District Contacts in Outlook. HR initiated two surveys with member agencies to review work schedules as well as cell phone reimbursement rates. Provided assistance with WACO on the following items: Meetings via Zoom, PowerPoint presentations and various correspondence. Staff assisted with preparation, distribution and compilation of GM Performance and Goal Setting Forms. Coordinated with legal counsel on GM Performance Evaluation and Employment Contract. Coordinating with Finance Department on work hours, timesheets and overtime to ensure compliance with FLSA guidelines. Coordinating with Finance department on current cell phone and Computer Loan Policies and procedures to ensure consistency and efficiencies. Participated in Building Management Committee. Met with PeopleSpace to receive delivery of items and ensure punch list items were completed. MWD OC All Staff Meeting was held on September 22. In honor of California Water Professionals Appreciation Week a luncheon was held on October 3 for MWD OC employees. Staff is working with Legal Counsel on Mandatory Amendments to the 457 Plan, in addition to updates to Life Cycle Funds.

**INFORMATION ITEM**

October 12, 2022

TO: Administration & Finance Committee
(K. Seckel (Chair), J. Thomas, L. Dick)

FROM: Robert J. Hunter, General Manager

Staff Contact: Steven Hung

SUBJECT: Finance and IT Pending Items Report

SUMMARY

The following list details the status of special projects that are in-progress or to be completed during FY 2022-23.

Finance

Description(Finance)	% of Completion	Estimated Completion date	Status
Further Implementation of WUE Landscape Programs Databases and Web Site.	On-going	On-going	In Progress
2022 W-9 collection for conservation rebates. Currently holding one rebate check awaiting a W-9 form.	On-going	On-going	On-going
2022-Q4 KnowBe4 training	33%	10/31/2022	In Progress
Annual Financial Audit	90%	11/03/2022	In Progress
RFP for Custodial Services	0%	12/31/2022	Not Started

Information Technology

Description(Information Technology)	% of Completion	Estimated Completion date	Status
Network security issues (hackers, viruses and spam emails)	On-going	On-going	Continuous system monitoring

Description(Information Technology)	% of Completion	Estimated Completion date	Status
Replace End-Of-Life Cisco Voice Gateway router (hardware and software)	30%	03-31-2023	In Progress
Upgrade backbone Gigabit network switch (hardware)	100%	03-31-2023	Completed
Windows Operating systems software upgrade for all Servers	0%	6-30-2022	Not Started
Microsoft Office 365 software upgrade	30%	12-31-2022	In Progress
Replace Wireless Access Controller for wireless network	0%	06-30-2022	Not Started
Replace computers/laptops for Staff	40%	3-31-2022	In Progress

FY 2022-23 Completed Special Tasks

Finance

Description(Finance)	% of Completion	Estimated Completion date	Status

Information Technology

Description(Information Technology)	% of Completion	Estimated Completion date	Status
Software and hardware upgrade for Hyper-V Virtual Server	100%	07-31-2022	Completed
Batteries replacement for UPS	100%	09-30-2022	Completed



INFORMATION ITEM

October 12, 2022

TO: **Administration & Finance Committee**
(Directors Seckel, Dick, Thomas)

FROM: **Robert Hunter, General Manager**

Staff Contact: Kevin Hostert

SUBJECT: **Monthly Water Usage Data and Water Supply Info.**

STAFF RECOMMENDATION

Staff recommends the Administration & Finance Committee receive and file this information.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

The attached figures show the recent trend of water consumption in Orange County (OC), an estimate of Imported Water Sales for MWD OC, and selected water supply information.

- OC Water Usage, Monthly by Supply **OCWD Groundwater was the main supply in August.**
- Estimated OC Water Usage, Monthly, Comparison to Previous Years Water usage in August **2022 was below average compared to the last 5 years.** We are projecting a decrease in overall water usage compared to FY 2021-22. On July 8th 2021, state officials have ask California residents to voluntary reduce their water usage by 15% compared to 2020 levels.
- Historical OC Water Consumption Orange County M & I water consumption is **projected to be 535,000 AF in FY 2022-23** (this includes ~11 TAF of agricultural usage and non-retail water agency usage). This is about **11,000 AF less than FY 2021-22** and is about **25,000 AF less than FY 2020-21**. Water usage per person is projected to be slightly lower in **FY 2021-22 for Orange County at 151 gallons per day** (This includes recycled water usage). Although OC population has increased 20% over the past two decades, water usage has not increased, on average. A long-term decrease in per-capita water usage is attributed mostly to Water Use

Budgeted (Y/N): N	Budgeted amount: N/A	Core <u>X</u>	Choice <u> </u>
Action item amount: N/A		Line item:	
Fiscal Impact (explain if unbudgeted):			

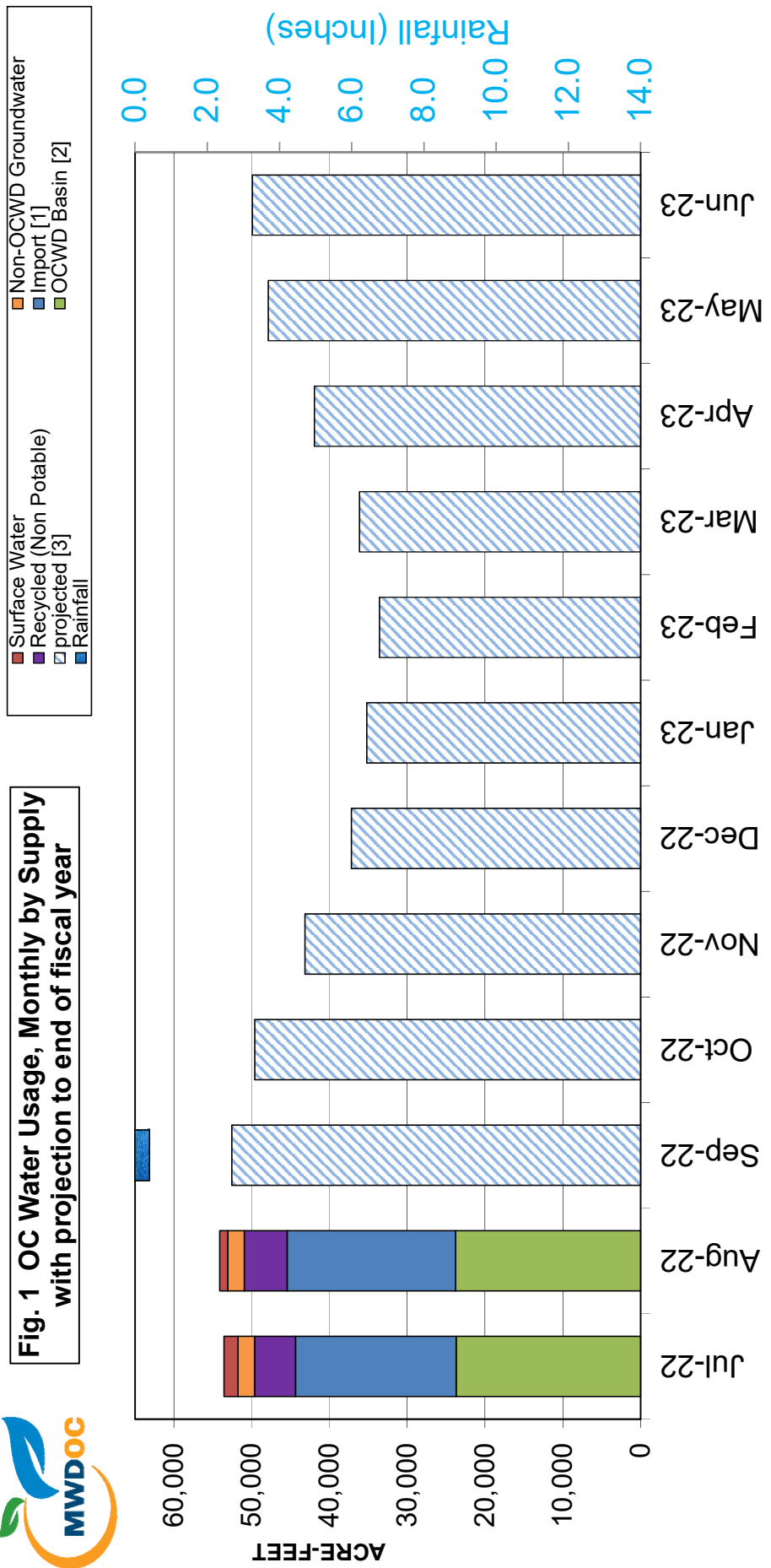
Efficiency (water conservation) efforts. ***O.C. Water Usage has declined significantly since the FY 2013-14. Since FY 2013-14 average O.C. Annual Water usage is 535,000 AF, a decline of 86,500 AF since FY 2013-14.***

Water Supply Information Includes data on Rainfall in OC; the OCWD Basin overdraft; Northern California and Colorado River Basin hydrologic data; the State Water Project (SWP) Allocation, and regional storage volumes. The data have implications for the magnitude of supplies from the three watersheds that are the principal sources of water for OC. Note that a hydrologic year is Oct. 1st through Sept. 30th.

- Orange County's accumulated precipitation through ***late September was below average*** for this period. Water year to date rainfall in Orange County is ***7.43 inches***, which is ***57% of normal***.
- Northern California accumulated precipitation through ***late September was 86% of normal for this period***. Water Year 2021 was 48% of normal while water year 2020 was 63% of normal. The ***Northern California snowpack was 27% as April 1st, 2022. As of late September, 99.76%*** of California is experiencing ***moderate to severe drought conditions***. ***40.91%*** of California is experiencing ***extreme to exceptional drought conditions***. The State Water Project Contractors Table A Allocation was decreased in March to 5% for WY 2022.
- Colorado River Basin accumulated precipitation through ***late September was 100% of normal*** for this period. The ***Upper Colorado Basin snowpack was 86% of normal*** as of April 15th 2022. ***Lake Mead and Lake Powell*** combined have about ***37.0% of their average storage volume*** for this time of year and are at ***26.2% of their total capacity***. For the first time on the Colorado River, Lake Mead's ***levels have fallen below the "trigger" limit of 1,075 ft. at the end of a calendar year***. The US Bureau of Reclamation (USBR) has declared a shortage at Lake Mead, impacting Colorado River water deliveries to the Lower Basin states. Lake Mead as of early September was ***29.79' BELOW the "trigger" limit***. The USBR has declared a ***shortage on the Colorado River starting January 1st 2022. There is a 100% chance of shortage continuing in 2023, 93% in 2024, 100% in 2025 and 93% in 2026***. Lake Mead as of late September was ***0.21' ABOVE the State of California "trigger" limit. There is a 0% chance of shortage for California in 2023, 77% in 2024 (-282 TAF), 71% in 2025 (-302 TAF) and 67% in 2026 (-293 TAF).***



**Fig. 1 OC Water Usage, Monthly by Supply
with projection to end of fiscal year**



[1] Imported water for consumptive use. Includes "In-Lieu" deliveries and CUP water extraction. Excludes "Direct Replenishment" deliveries of spreading water and deliveries into Irvine Lake.

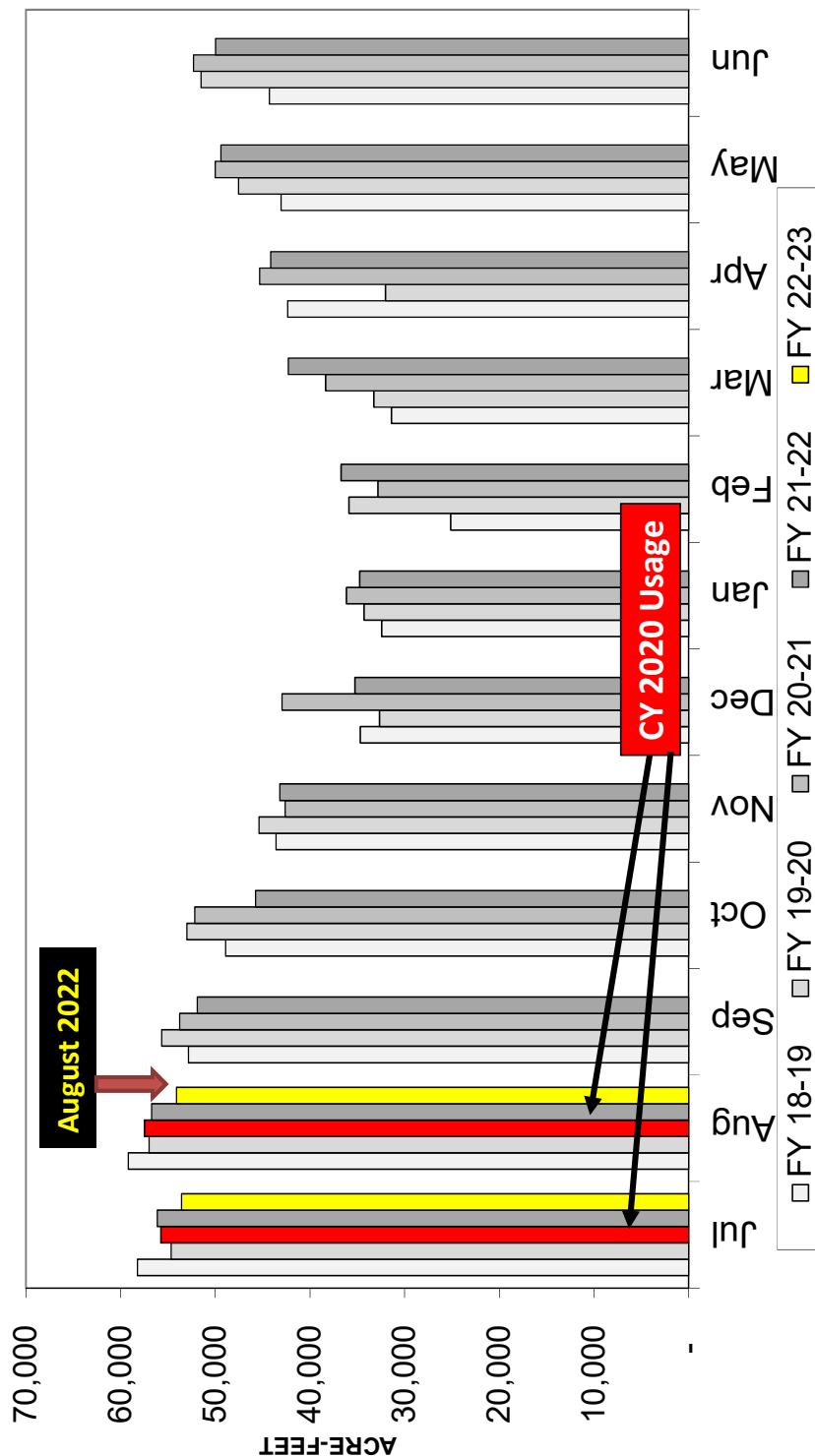
[2] GW for consumptive use only. Excludes In-Lieu water deliveries and CUP water extraction that are counted with Import. BPP in FY '22-23 is 77%.

[3] MWDOC's estimate of monthly demand is based on the projected 5 Year historical retail water demand and historical monthly demand patterns.

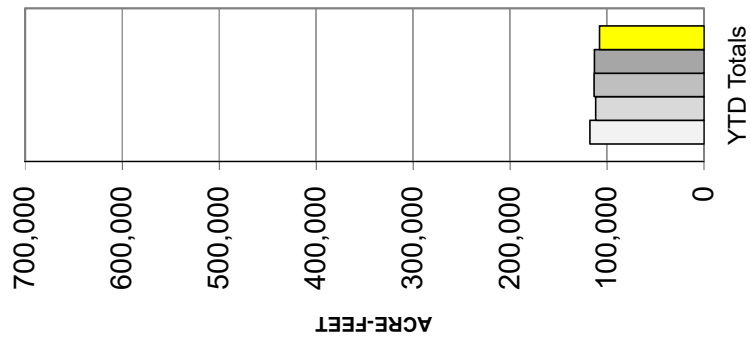
[4] Total water usage includes IRWD groundwater agricultural use and usage by non-retail water agencies.



Fig. 2 OC Monthly Water Usage [1]: Comparison to Last 4 Fiscal Years



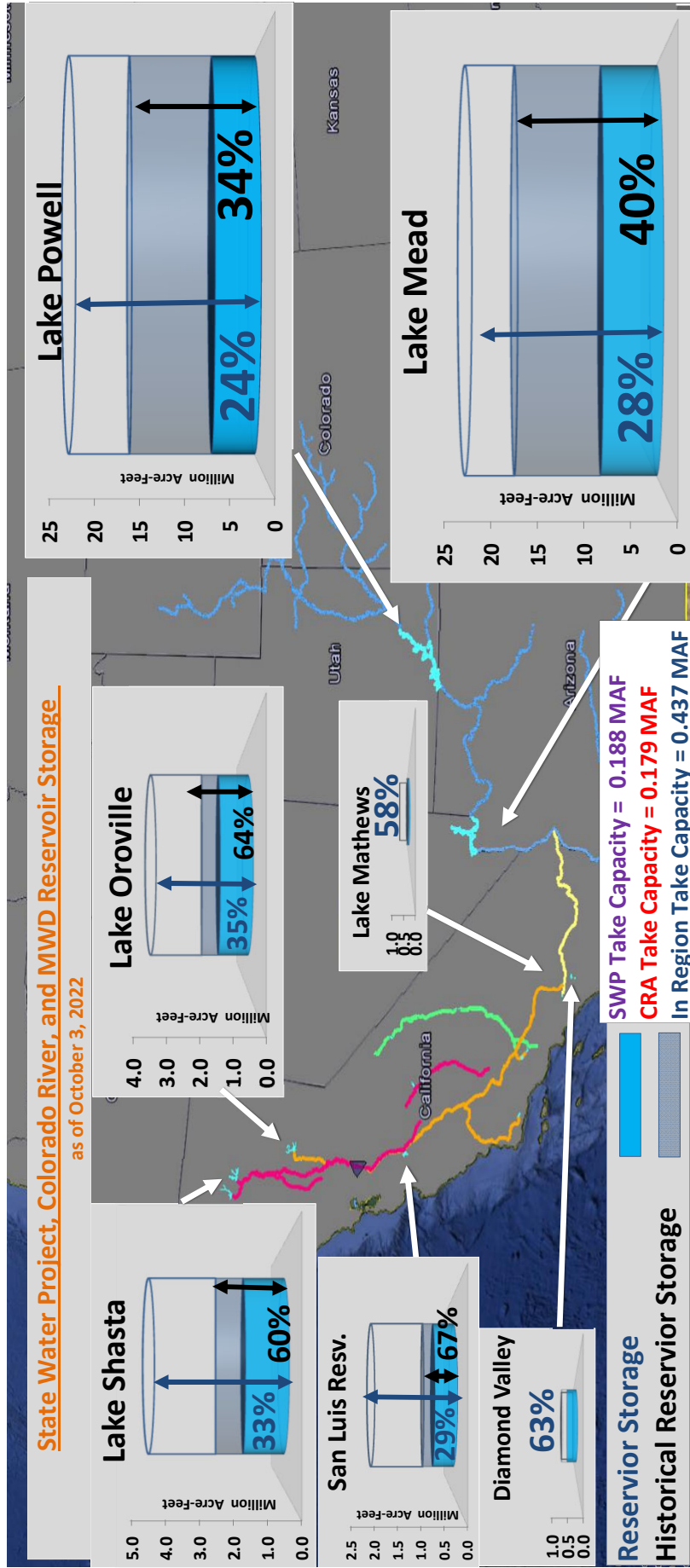
Partial Year Subtotals



[1] Sum of Imported water for consumptive use (includes "In-Lieu" deliveries; excludes "Direct Replenishment" and "Barrier Replenishment") and Local water for consumptive use (includes recycled and non-potable water and excludes GWRS production) Recent months numbers include some estimation.

######

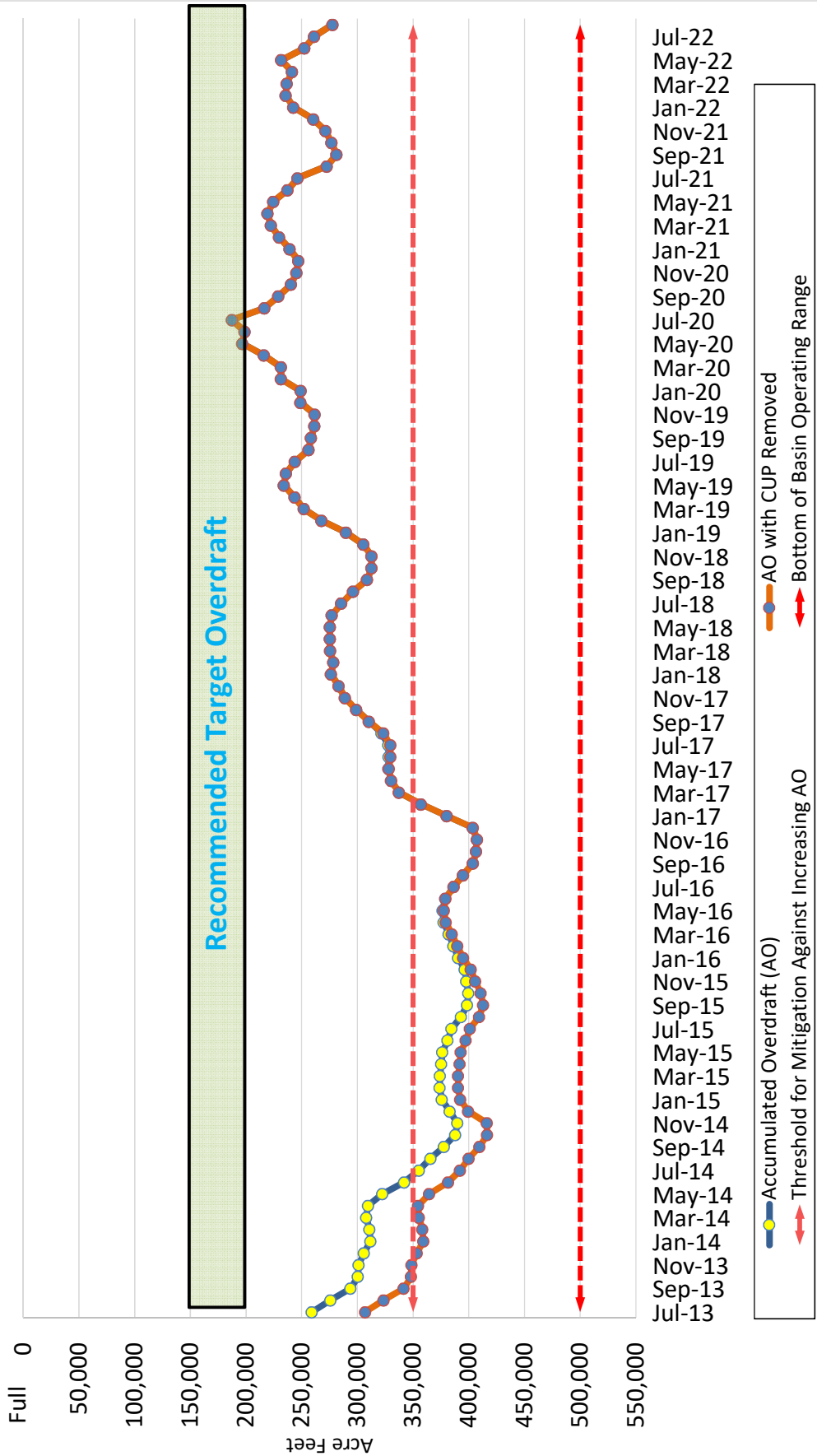
State Water Project, Colorado River, and MWD Reservoir Storage as of October 3, 2022



Prepared by the Municipal Water District of Orange County
*Number are Subject to Change



Accumulated Overdraft of the OCWD Groundwater Basin as of August 2022



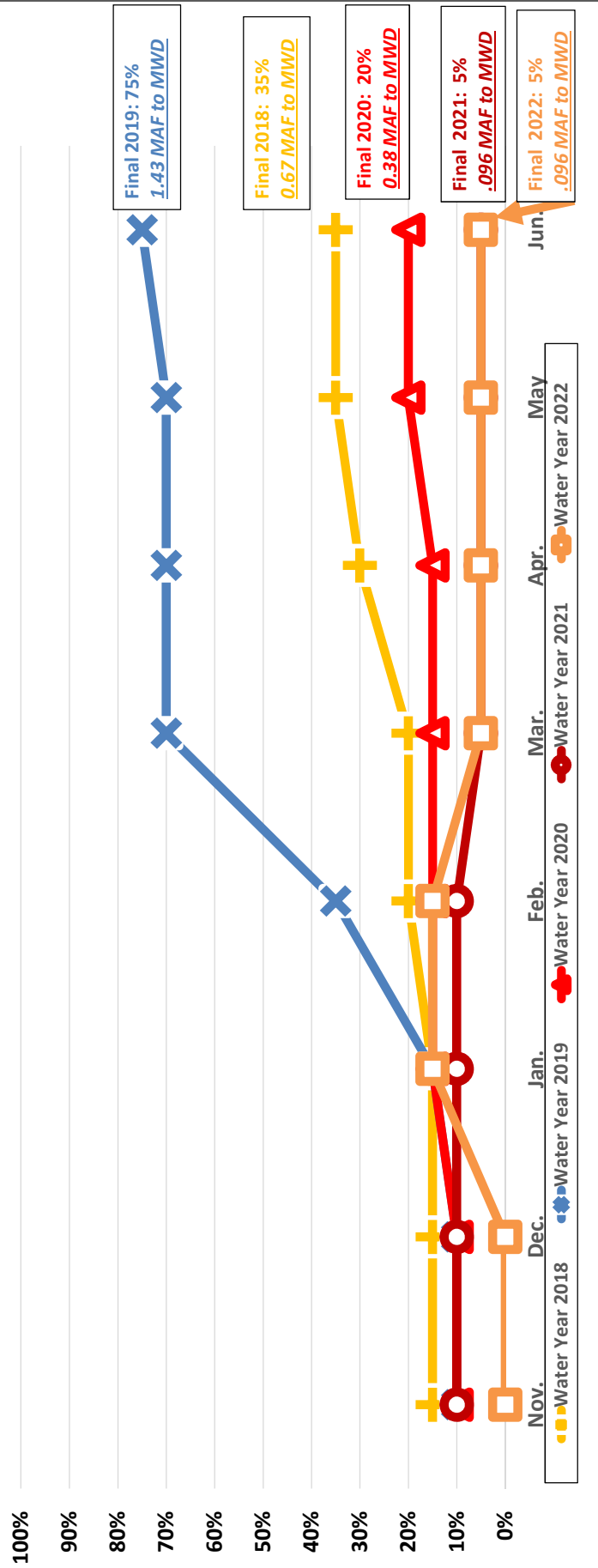
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
AO (AF)	246,350	272,443	281,354	276,909	271,455	260,387	242,511	235,744	236,708	241,450	231,699	252,348
AO w/CUP removed (AF)	246,350	272,442	281,354	276,909	271,455	260,387	242,510	235,744	236,708	241,450	231,699	252,348
	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
AO (AF)	261,145	277,756										
AO w/CUP removed (AF)	261,145	277,756										

* Source ~ OCWD Monthly Board of Directors Packet, Water Resources Summary

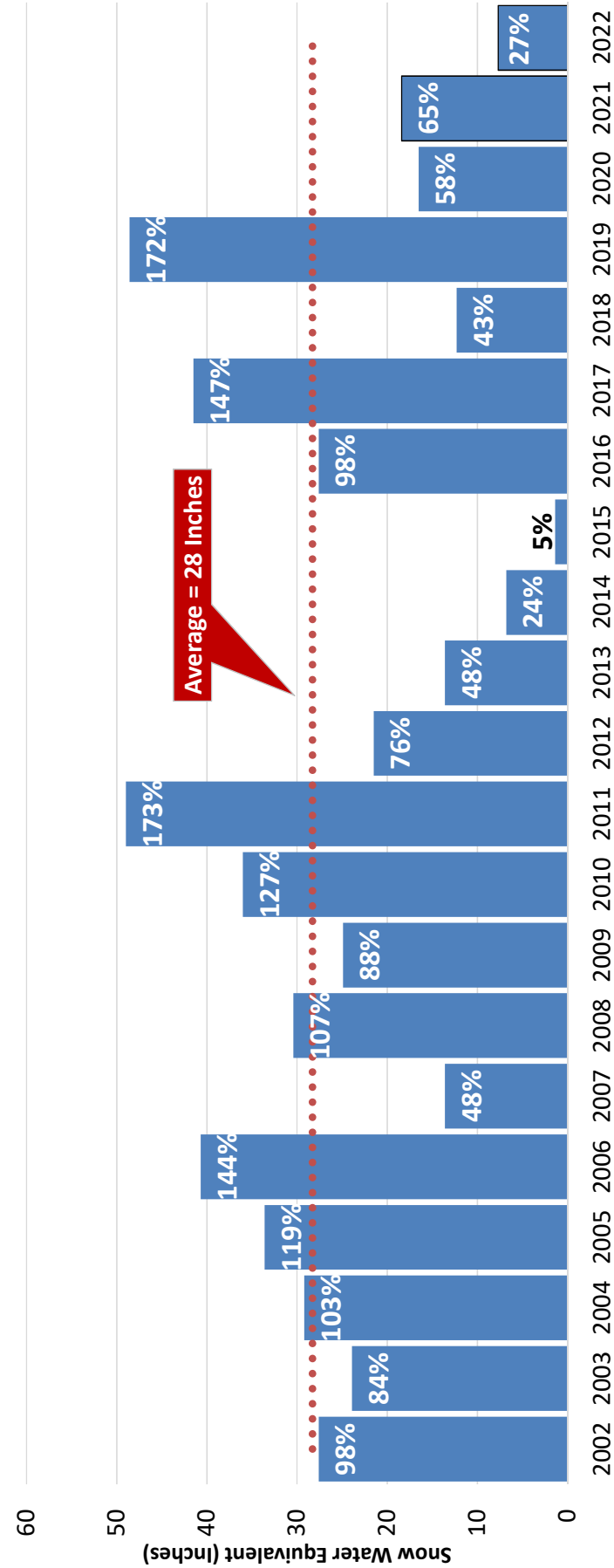


SWP TABLE A ALLOCATION PERCENTAGE

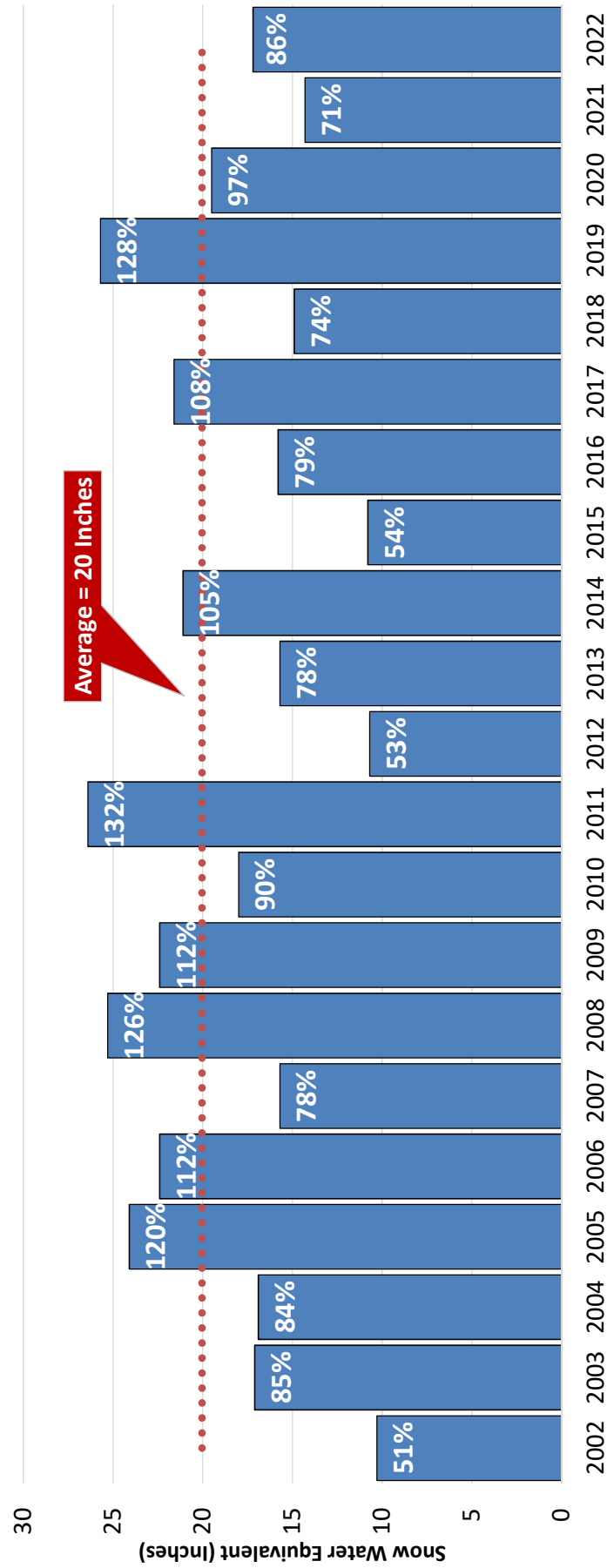
FOR STATE WATER PROJECT CONTRACTORS

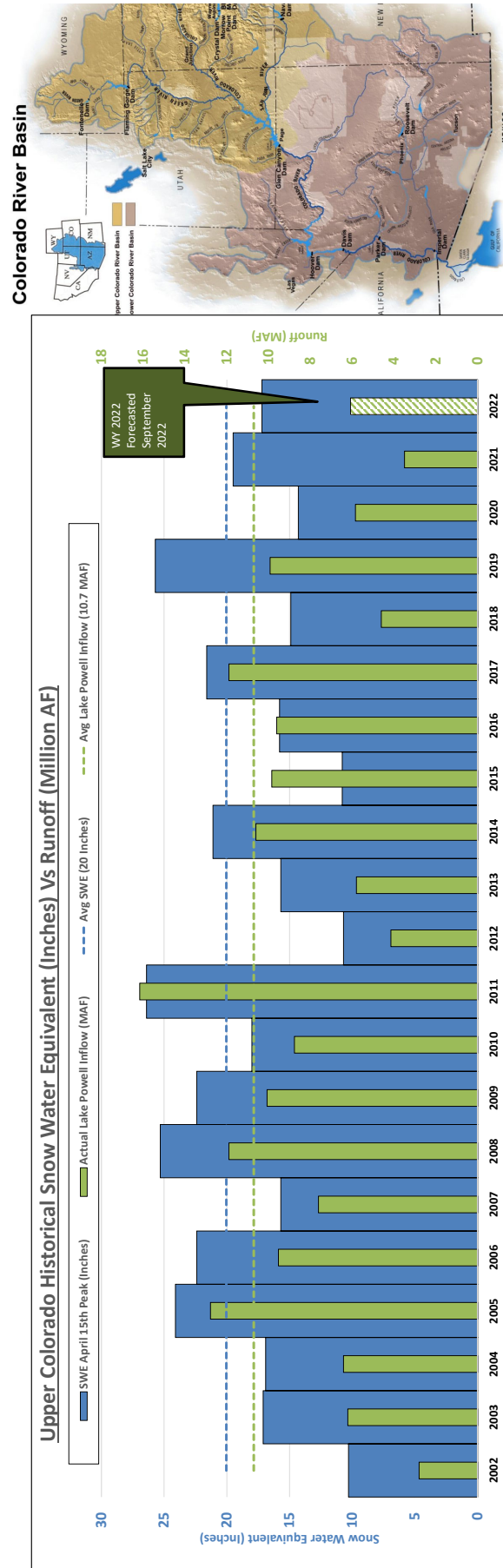
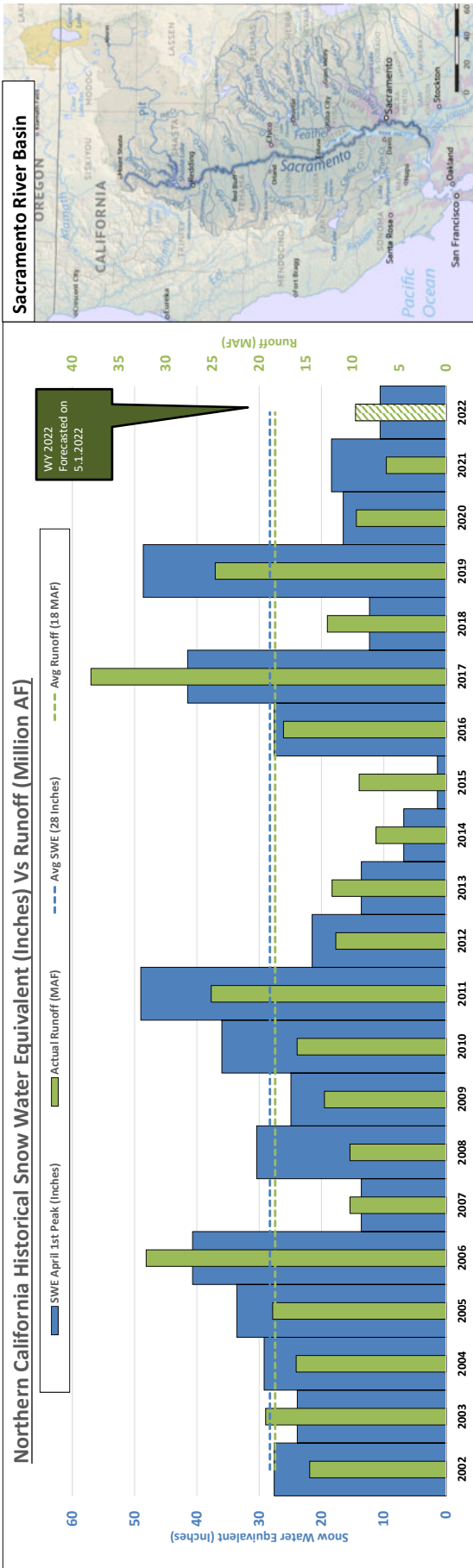


Historical Northern California April 1st Peak Snow Water Equivalent



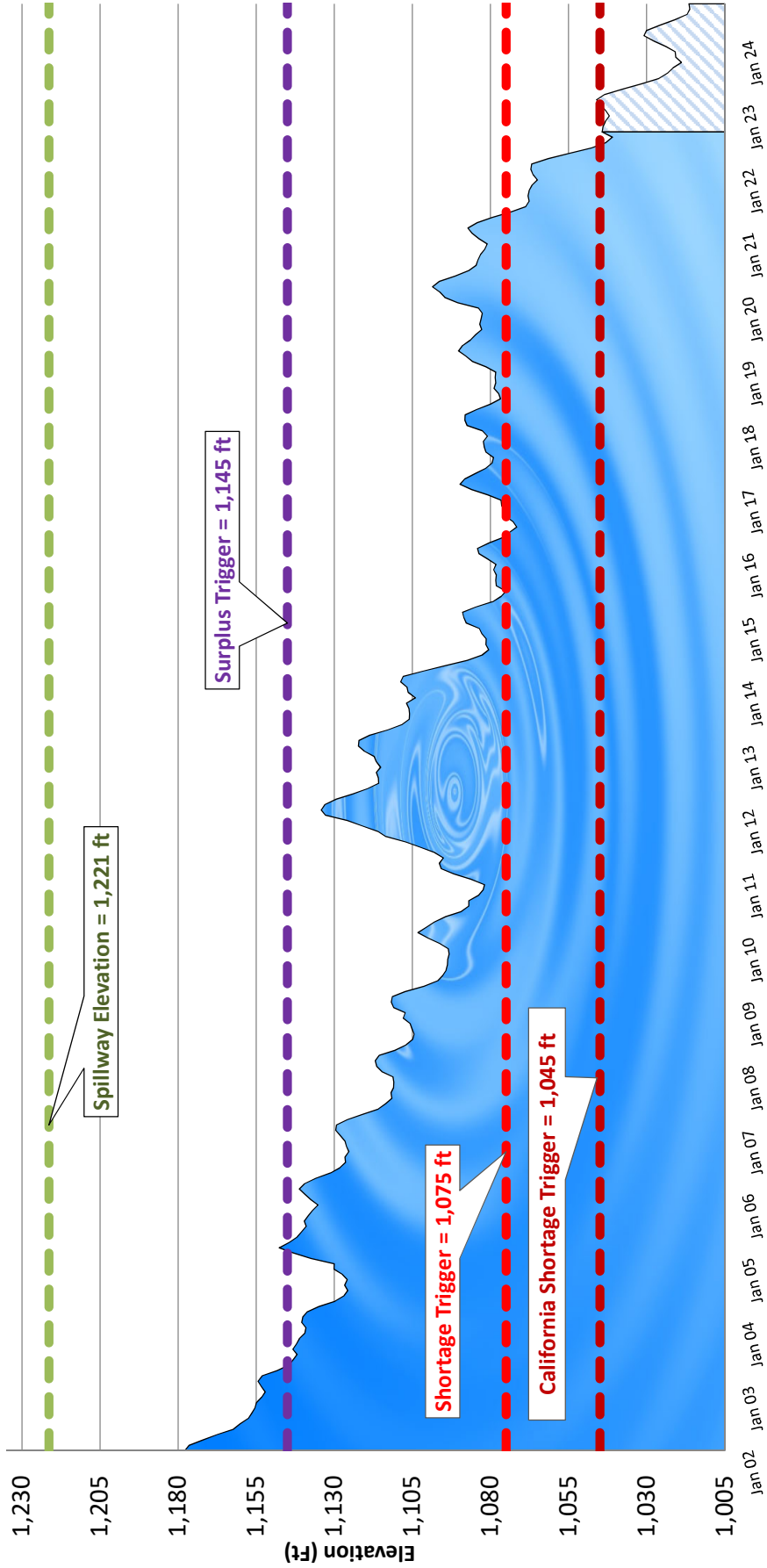
Historical Colorado Basin April 15th Peak Snow Water Equivalent







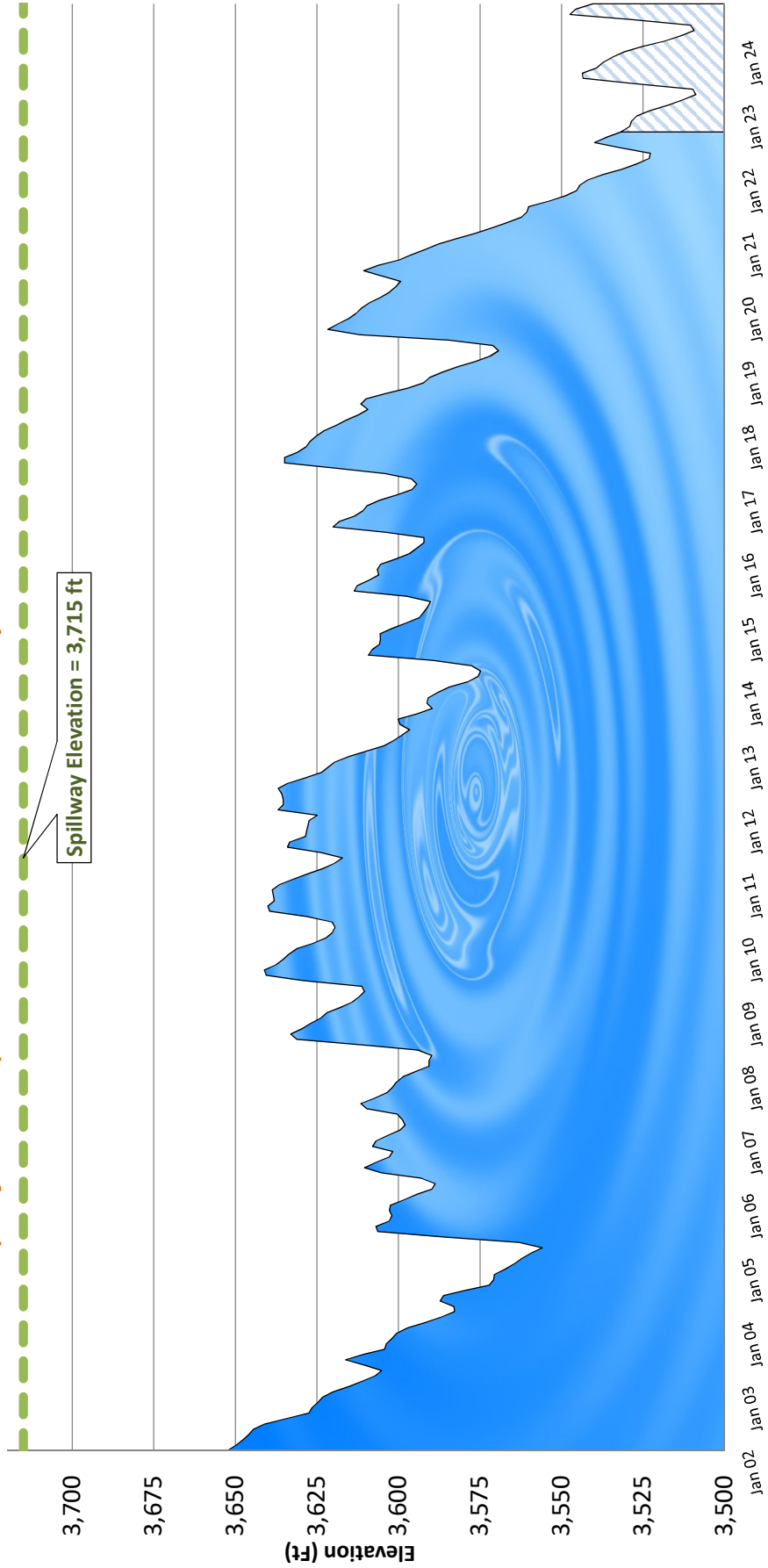
Lake Mead Levels: Historical and Projected projection per USBR 24-Month Study





Lake Powell Levels: Historical and Projected projection per USBR 24-Month Study

■ Historical □ Projected



Lake Mead Historical Water Elevation Level

