

**MEETING OF THE  
BOARD OF DIRECTORS OF THE  
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY**  
Jointly with the  
**ADMINISTRATION & FINANCE COMMITTEE**  
January 13, 2016, 8:30 a.m.  
MWDOC Conference Room 101

**Committee:**

Director Thomas, Chairman  
Director J. Finnegan  
Director Osborne

Staff: R. Hunter, K. Seckel, C. Harris,  
K. Davanaugh, H. Chumpitazi

Ex Officio Member: L. Dick

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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.

**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>.

**PRESENTATION**

1. PRESENTATION BY RAFTELIS REGARDING RATE STUDY KICKOFF (Approximate presentation time: 20-30 minutes)

**PROPOSED BOARD CONSENT CALENDAR ITEMS**

2. TREASURER'S REPORT
  - a. Revenue/Cash Receipt Report – December 2015
  - b. Disbursement Approval Report for the month of January 2016
  - c. Disbursement Ratification Report for the month of December 2015
  - d. GM Approved Disbursement Report for the month of December 2015
  - e. Water Use Efficiency Projects Cash Flow – December 31, 2015
  - f. Consolidated Summary of Cash and Investment – November 2015

- g. OPEB Trust Fund monthly statement
- 3. FINANCIAL REPORT - Combined Financial Statements and Budget Comparative for the period ending November 30, 2015

**ACTION ITEM**

- 4. RATIFY LARRY MCKENNEY'S PARTICIPATION ON THE ACWA LOCAL GOVERNMENT COMMITTEE

**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.)**

- 5. FY 2016-17 BUDGET SCHEDULE
- 6. CALPERS ANNUAL VALUATION
- 7. MONTHLY WATER USAGE DATA, TIER 2 PROJECTION & WATER SUPPLY INFO
- 8. DEPARTMENT ACTIVITIES REPORTS
  - a. Administration
  - b. Finance and Information Technology

**OTHER ITEMS**

- 9. 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.



**PRESENTATION**

January 13, 2016

**TO:** Board of Directors

**FROM:** Administration & Finance Committee  
(Directors Thomas, Osborne, Finnegan)

Robert Hunter, General Manager

Staff Contact: Hilary Chumpitazi

**SUBJECT: PRESENTATION BY RAFTELIS FINANCIAL CONSULTANTS ON MWDOC RATE STUDY**

**COMMITTEE RECOMMENDATION**

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The Committee to receive and file this presentation

**REPORT**

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On December 16, the MWDOC Board of Directors approved the selection of Raftelis Financial Consultants, Inc. to assist MWDOC staff in conducting a Rate Study.

At this month's A&F Committee, Raftelis will initiate the Rate Study with a presentation focusing on their proposed schedule, process, and approach. As part of the schedule, there will be a series of meetings with the A&F Committee and the Board over the next five months. In addition, there will be separate member agency managers meetings for review and input.

One of the key components of the process will be seeking input from the Committee on establishing policy principles to help guide the study. Among of the primary principles identified are legal compliance, fairness & equity, and revenue stability.


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



## Agenda

- Objective
- Rate Study Process
- Schedule
- MWDOC Services
- Discussion

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## Objective Today

- For the A&F Committee to review and provide feedback on the proposed rate study process and guiding principles

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## Rate Study Process

1. Guiding Principles / Pricing Objectives
  - What should the rate structure achieve?
2. Cost of Service
  - What is the appropriate way to allocate benefits?
3. Calculate Rates
  - What are the impacts to our member agencies?
4. Rate Workshops
  - Which rate structure (new or existing) should we adopt that achieves our overall objectives?

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## Proposed Schedule

TOPIC	DATES
GUIDING PRINCIPLE DISCUSSIONS WITH A&F COMMITTEE	A&F Committee Meeting – 1/13/2016 Managers Meeting – 1/21/2016 Managers Meeting – 2/2 or 2/4/2016 A&F Committee Meeting – 2/10/2016
WHOLESALE RATE MODEL DEVELOPMENT	February
RATE STRUCTURE WORKSHOP WITH A&F COMMITTEE AND MEMBER AGENCIES	A&F Committee Meeting – 3/9/2016 Managers Meeting – 3/17/2016 A&F Committee Meeting – 4/13/16 A&F Committee Meeting – 5/11/16
REPORT DEVELOPMENT & FINAL PRESENTATION	Board Meeting – 5/18/2016

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## Process - Guiding Principles

- Legal Compliance
- Fairness/Equity – a rate structure that aligns costs with the benefit to each agency
- Maintain revenue stability
- Minimize administrative complexity

Anything else? Order of importance?

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## Process – Cost of Service

### Cost of Service

1. Review and Identify MWDOC Core Services
2. Assess if the benefits of these Core Services are better aligned / in proportion to certain rate structures

# of Meters by Agency	# of Hydraulically Equivalent Meters by Agency	Spread Equally Over 28 Member Agencies
Water Use	Population	

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## Process - Rate Calculation

- Based on guiding principles and cost of service select 3 rate structures to calculate rates
- Determine impacts to member agencies

8



## Process – Rate Workshops

- Present rates and rate impacts in a series of four workshops

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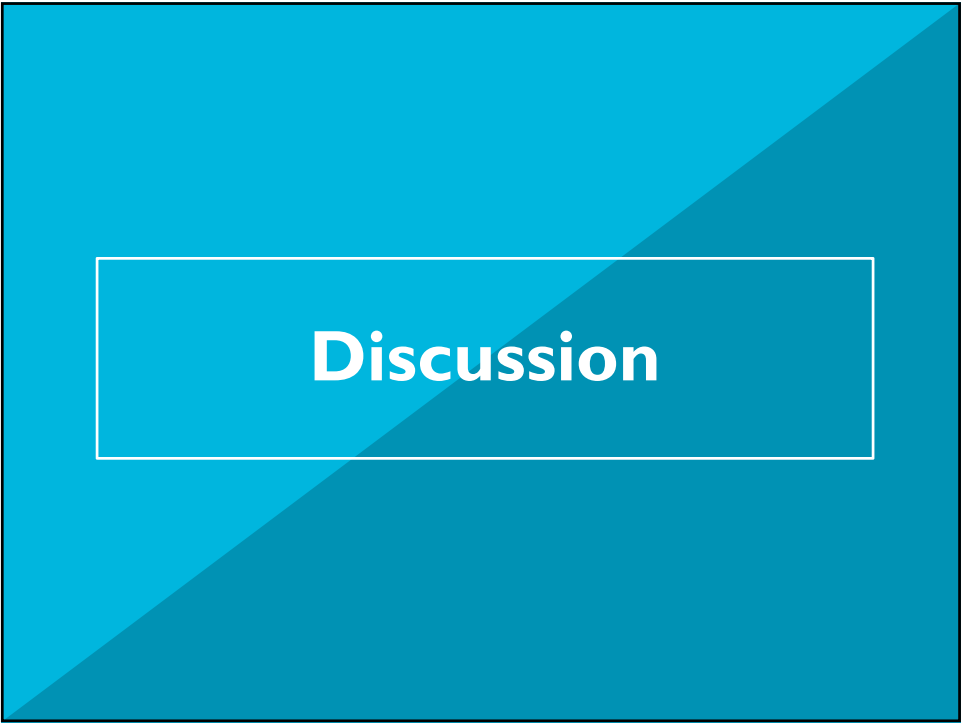


## MWDOC Services / Benefits

1. Accounting and General Admin, including Billing
2. MET Representation
3. Governmental Affairs
4. Public Affairs
5. Water Supply Planning
6. Water Emergency Response Organization of Orange County

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**Municipal Water District of Orange County**  
**REVENUE / CASH RECEIPT REPORT**  
**December 2015**

**WATER REVENUES**

<b>Date</b>	<b>From</b>	<b>Description</b>	<b>Amount</b>
12/02/15	City of La Palma	October 2015 Water deliveries	48,963.36
12/04/15	City of Brea	October 2015 Water deliveries	222,929.91
12/07/15	El Toro Water District	October 2015 Water deliveries	615,194.32
12/07/15	City of Newport Beach	October 2015 Water deliveries	412,972.16
12/07/15	City of Garden Grove	October 2015 Water deliveries	461,643.38
12/09/15	Santa Margarita Water District	October 2015 Water deliveries	2,016,132.92
12/09/15	City of Westminster	October 2015 Water deliveries	146,998.03
12/11/15	Laguna Beach County Water District	October 2015 Water deliveries	290,519.94
12/14/15	South Coast Water District	October 2015 Water deliveries	441,809.24
12/14/15	East Orange County Water District	October 2015 Water deliveries	220,680.37
12/14/15	City of Orange	October 2015 Water deliveries	770,404.62
12/15/15	Orange County Water District	October 2015 Water deliveries	320,958.57
12/15/15	Santiago Aqueduct Commission	October 2015 Water deliveries	115,527.00
12/15/15	Irvine Ranch Water District	October 2015 Water deliveries	620,428.05
12/15/15	City of Seal Beach	October 2015 Water deliveries	165,531.43
12/15/15	Yorba Linda Water District	October 2015 Water deliveries	422,644.40
12/15/15	Golden State Water Company	October 2015 Water deliveries	359,336.18
12/15/15	Moulton Niguel Water District	October 2015 Water deliveries	2,021,232.23
12/24/15	City of Brea	November 2015 Water deliveries	179,456.61
12/28/15	Serrano Water District	November 2015 Water deliveries	5,970.14
12/28/15	City of San Juan Capistrano	November 2015 Water deliveries	359,752.75
12/28/15	City of Fountain Valley	November 2015 Water deliveries	163,621.16
12/28/15	City of Buena Park	November 2015 Water deliveries	198,425.35
12/28/15	City of La Habra	November 2015 Water deliveries	21,298.69
12/28/15	City of La Palma	November 2015 Water deliveries	47,671.16
12/31/15	City of Huntington Beach	November 2015 Water deliveries	282,420.40

TOTAL REVENUES \$ 10,932,522.37

**Municipal Water District of Orange County**  
**REVENUE / CASH RECEIPT REPORT**  
**December 2015**

**MISCELLANEOUS REVENUES**

Date	From	Description	Amount
12/07/15	Irvine Company	1/22/16 Water policy dinner	80.00
12/18/15	HDR Inc	1/22/16 Water policy dinner	80.00
12/21/15	2 Checks	1/22/16 Water Policy dinner	1,120.00
12/24/15	Paypal	1/22/16 Water policy dinner	4,111.64
12/09/15	Susan Hinman	Jul-Sep 2015 Director's Insurance contribution	70.38
12/21/15	Stan Sprague	December 2015 Retiree medical insurance	424.00
12/31/15	Darcy Burke	January 2016 COBRA medical premium	1,293.82
12/09/15	Laura Loewen	Movie tickets	8.50
12/18/15	2 Checks	Movie tickets	238.00
12/21/15	Trung Pham	Movie tickets	170.00
12/28/15	Mary Snow	Movie tickets	34.00
12/31/15	3 Checks	Movie tickets	153.00
12/02/15	US Bank	CAL Card rebate check	588.74
12/08/15	Joan Finnegan	Pension reimbursement	20,949.87
12/21/15	County of Orange	Distribution from the County of Orange bankruptcy case - MWDOC	4,139.22
12/21/15	County of Orange	Distribution from the County of Orange bankruptcy case - Coastal successor	688.87
12/04/15	City of Tustin	September 2015 Smart Timer rebate program	75.00
12/07/15	El Toro Water District	September 2015 Rotating Nozzle rebate program	29.00
12/14/15	Irvine Ranch Water District	October 2015 Turf Removal rebate program	5,731.72
12/18/15	2 Checks	October 2015 Turf Removal rebate program	2,747.64
12/21/15	2 Checks	October 2015 Turf Removal rebate program	4,054.02
12/28/15	3 Checks	October 2015 Turf Removal rebate program	2,023.75
12/31/15	2 Checks	October 2015 Turf Removal rebate program	940.21
12/14/15	Yorba Linda Water District	September 2015 Smart Timer & Turf Removal rebate program	651.18
12/18/15	Moulton Niguel Water District	October 2015 Smart Timer, Rotating Nozzle & Turf Removal rebate program	179,144.03
12/14/15	El Toro Water District	October 2015 So Cal Watersmart Residential rebate program	100.00
12/21/15	2 Checks	October 2015 So Cal Watersmart Residential rebate program	55,249.65
12/28/15	Santa Margarita Water District	October 2015 So Cal Watersmart Residential rebate program	2,875.00
12/28/15	Trabuco Canyon Water District	October 2015 So Cal Watersmart Residential rebate program	1,297.98
12/14/15	Irvine Ranch Water District	Jul-Sep 2015 Landscape Performance Certification program	2,400.00
12/15/15	Bureau of Reclamation	September 2015 Water Efficient Site Certification & Smart Timer rebate program	1,913.50
12/21/15	Moulton Niguel Water District	May-Nov 2015 Spray to Drip Residential rebate program	12,588.64
12/28/15	Santa Margarita Water District	May-Nov 2015 Spray to Drip Residential rebate program	80.00
12/07/15	CA Urban Water Conservation Council	DWR and CUWCC sponsorships for Outdoor Water Use Workshop	2,000.00
12/15/15	Bureau of Reclamation	Oct-Dec 2015 Hotel Water Smart program	13,439.17
12/21/15	Golden State Water Company	October 2015 Commercial Industrial Institutional rebate program	4,550.00
12/02/15	City of La Palma	FY 15-16 Choice Programs Billing Invoice	3,785.26
12/04/15	City of Fullerton	FY 15-16 Choice Programs Billing Invoice	697.53
12/07/15	Moulton Niguel Water District	FY 15-16 Choice Programs Billing Invoice	239,887.80
12/07/15	El Toro Water District	FY 15-16 Choice Programs Billing Invoice	33,822.89
12/11/15	City of San Clemente	FY 15-16 Choice Programs Billing Invoice	34,591.94
12/11/15	Mesa Water	FY 15-16 Choice Programs Billing Invoice	27,041.47
12/14/15	City of San Juan Capistrano	FY 15-16 Choice Programs Billing Invoice	26,075.19
12/21/15	City of Seal Beach	FY 15-16 Choice Programs Billing Invoice	12,807.78
12/28/15	City of Anaheim	FY 15-16 Choice Programs Billing Invoice	2,272.64
12/21/15	City of Buena Park	2015 Urban Water Management Plan contract - Arcadis	44,570.00
12/21/15	City of Seal Beach	2015 Urban Water Management Plan contract - Arcadis	25,910.00

TOTAL MISCELLANEOUS REVENUES \$ 777,503.03

TOTAL REVENUES \$ 11,710,025.40



Robert J. Hunter, General Manager



Hilary Chumbitazi, Treasurer

**Municipal Water District of Orange County  
Disbursement Approval Report  
For the month of January 2016**

<i>Invoice#</i>	<i>Vendor / Description</i>	<i>Amount to Pay</i>
<b>Core Expenditures:</b>		
	<b>Richard Ackerman</b>	
1090	December 2015 Legal consulting on water policy issues	2,275.00
	*** Total ***	2,275.00
	<b>Aleshire &amp; Wynder LLP</b>	
35793	11/20/15-12/31/15 Legal services	6,532.72
	*** Total ***	6,532.72
	<b>ALTA FoodCraft</b>	
515111760	11/25/15 Coffee & tea supplies	293.10
	*** Total ***	293.10
	<b>Arcadis US, Inc.</b>	
0754268	October 2015 Services for development of Urban Water Management plan	65,389.30
0758881	November 2015 Services for development of Urban Water Management plan	12,449.53
	*** Total ***	77,838.83
	<b>CDM Smith</b>	
80542132/12	11/1/15-11/28/15 Engineering services for OC Water Reliability Investigation	14,958.00
	*** Total ***	14,958.00
	<b>Deluxe for Business</b>	
75669584	2015 - W-2 & 1099 Forms	71.58
	*** Total ***	71.58
	<b>G &amp; E Engineering Systems</b>	
120.01-4	October-December 2015 Services for Seismic Impacts analysis	9,000.00
	*** Total ***	9,000.00
	<b>GovConnection, Inc.</b>	
53282761	1/5/16-1/5/17 Subscription renewal for e-mail security software	363.00
	*** Total ***	363.00
	<b>Humanscale Corporation</b>	
2082168	1 Black Smart ergonomic chair	796.09
	*** Total ***	796.09
	<b>International Public Management Association for H.R.</b>	
12892-G3R2J4	3/1/2016-2/28/17 Annual membership renewal	107.00
	*** Total ***	107.00
	<b>James C. Barker, P.C.</b>	
105-1215	December 2015 Federal legislative advocacy services	8,000.00
	*** Total ***	8,000.00



**Municipal Water District of Orange County  
Disbursement Approval Report  
For the month of January 2016**

<i>Invoice#</i>	<i>Vendor / Description</i>	<i>Amount to Pay</i>
	<b><i>Karen's Detail Custom Frames</i></b>	
2738	Framed photos for R. Bell's retirement gift	156.60
	*** Total ***	156.60
	<b><i>Lewis Consulting Group, LLC</i></b>	
1446	December 2015 Consulting services	4,187.50
	*** Total ***	4,187.50
	<b><i>Office Solutions</i></b>	
I-00877905	12/15/2015 Office supplies	140.93
I-00879655	12/17/2015 Office supplies	532.73
I-00880169	12/18/15 Office supplies	151.18
I-00886286	1/6/16 Office supplies	23.80
	*** Total ***	848.64
	<b><i>Orange County Water District</i></b>	
15702	November 2015 50% of WACO expenses	230.49
15736	November 2015 Postage, shared office & maintenance expense	8,416.42
	*** Total ***	8,646.91
	<b><i>Norco Delivery Services</i></b>	
696137	Delivery charges for Board and Committee packets on 12/30/15	167.53
	*** Total ***	167.53
	<b><i>Patricia Kennedy Inc.</i></b>	
20658	January 2016 Plant maintenance	214.00
	*** Total ***	214.00
	<b><i>Staples Advantage</i></b>	
8037072637	12/5/2015 Office supplies	272.39
8037338380	12/26/2015 Office supplies	55.57
	*** Total ***	327.96
	<b><i>Top Hat Productions</i></b>	
91173	12/14/15 Food for R. Bell's retirement luncheon	1,585.71
91214	12/17/15 Lunch for Managers' meeting	468.18
	*** Total ***	2,053.89
	<b><i>Townsend Public Affairs, Inc.</i></b>	
11304	December 2015 State legislative advocacy services	8,000.00
	*** Total ***	8,000.00

**Municipal Water District of Orange County  
Disbursement Approval Report  
For the month of January 2016**

<b>Invoice#</b>	<b>Vendor / Description</b>	<b>Amount to Pay</b>
2826181-CA	<b>U. S. HealthWorks Medical Group</b> 12/11/15 Pre-employment exam *** Total ***	180.00 180.00
955407	<b>Union Bank, N.A.</b> September-December 2015 Custodial bank fees *** Total ***	625.00 625.00
5121877	<b>USAFact, Inc.</b> 12/11/15 Pre-employment background check *** Total ***	39.04 39.04
0120088-IN	<b>Vavrinek, Trine, Day &amp; Co., LLP</b> November 2015 Services for FY 14/15 Financial Statement audit *** Total ***	635.00 635.00
121415	<b>Pauline D. Wennerstrom</b> January 2016 Retiree medical premium *** Total ***	846.45 846.45
	<b>Total Core Expenditures</b>	<b>147,163.84</b>
<b>Choice Expenditures:</b>		
30369	<b>Chambers Group Inc.</b> November 2015 Baseline environmental monitoring for Doheny Ocean Desal project *** Total ***	25,733.02 25,733.02
123115MWDOC	<b>Discover Science Center</b> December 2015 School program *** Total ***	7,249.10 7,249.10
MWDOC/ELC 122315	<b>EcoLandscape California</b> 11/21/15-11/30/15 Development of irrigation schedule calculator *** Total ***	13,012.50 13,012.50
91113	<b>Top Hat Productions</b> 12/3/15 Lunch for Water Use Efficiency Workgroup meeting *** Total ***	460.08 460.08
	<b>Total Choice Expenditures</b>	<b>46,454.70</b>

**Municipal Water District of Orange County**  
**Disbursement Approval Report**  
**For the month of January 2016**

<i>Invoice#</i>	<i>Vendor / Description</i>	<i>Amount to Pay</i>
<b>Other Funds Expenditures:</b>		
	<b>ConserVision Consulting, LLC</b>	
LPCP-237	November 2015 Consulting services for Landscape Performance Certification program	6,620.00
	*** Total ***	6,620.00
	<b>Eagle Communications</b>	
714290	November-December 2015 Services for WEROC partner agency radio inspections	805.50
	*** Total ***	805.50
	<b>EcoLandscape California</b>	
MWDOC/ELC 122315	11/21/15-11/30/15 Development of irrigation schedule calculator	13,012.50
	*** Total ***	13,012.50
	<b>Mission RCD</b>	
1887	November 2015 Field verifications for Water Use Efficiency rebate programs	28,966.82
	*** Total ***	28,966.82
	<b>Power Plus!</b>	
S39816-638651	11/17/15 Generator service for WEROC N. EOC equipment	375.46
	*** Total ***	375.46
	<b>Total Other Funds Expenditures</b>	<hr/> 49,780.28
	<b>Total Expenditures</b>	<hr/> <hr/> 243,398.82

**Municipal Water District of Orange County  
Disbursement Ratification Report  
For the month of December 2015**

<b>Check #</b>	<b>Date</b>	<b>Vendor # Invoice/CM #</b>	<b>Name / Description</b>	<b>Net Amount</b>
<b>Core Disbursements:</b>				
<b>130868</b>	<b>12/4/15</b>	<b>BELLRI 112015</b>	<b>Richard Bell</b> October-November 2015 Business expense	59.00
			***Total ***	59.00
<b>130869</b>	<b>12/4/15</b>	<b>TIMEWA 5210-DEC15</b>	<b>Time Warner Cable</b> December 2015 Telephone and internet expense	1,290.42
			***Total ***	1,290.42
<b>130873</b>	<b>12/4/15</b>	<b>VERIZO 9756118754</b>	<b>Verizon Wireless</b> November 2015 4G Mobile broadband unlimited service	76.02
			***Total ***	76.02
<b>130874</b>	<b>12/16/15</b>	<b>ACKEEX 113015</b>	<b>Linda Ackerman</b> November 2015 Business expense	48.30
			***Total ***	48.30
<b>130880</b>	<b>12/16/15</b>	<b>C3OFFI INV45194</b>	<b>C3 Office Solutions LLC</b> December 2015 Canon copier maintenance	262.13
			***Total ***	262.13
<b>130886</b>	<b>12/16/15</b>	<b>DELAGE 47919593</b>	<b>De Lage Landen Public Finance</b> December 2015 Canon copier lease	509.00
			***Total ***	509.00
<b>130892</b>	<b>12/16/15</b>	<b>IRONMO MBK0961</b>	<b>Iron Mountain</b> December 2015 Storage/retrieval of archived documents	535.22
			***Total ***	535.22
<b>130893</b>	<b>12/16/15</b>	<b>HOSTER 112015</b>	<b>Kevin Hostert</b> October-November 2015 Business expense	206.62
			***Total ***	206.62
<b>130924</b>	<b>12/16/15</b>	<b>THOMAST 103115</b>	<b>Trevor Thomas</b> October 2015 Business expense	17.25
			***Total ***	17.25
<b>130925</b>	<b>12/16/15</b>	<b>TIMEWA 3564-DEC15</b>	<b>Time Warner Cable</b> December 2015 Telephone expense for 4 analog fax lines	143.68
			***Total ***	143.68
<b>130933</b>	<b>12/16/15</b>	<b>VOLZKE 110115 121115</b>	<b>Jonathan Volzke</b> October 2015 Business expense November-December 2015 Business expense	339.67 918.28
			***Total ***	1,257.95

**Municipal Water District of Orange County  
Disbursement Ratification Report  
For the month of December 2015**

<b>Check #</b>	<b>Date</b>	<b>Vendor # Invoice/CM #</b>	<b>Name / Description</b>	<b>Net Amount</b>
<b>ACH001780</b>	<b>12/16/15</b>	<b>BAEZHE</b>	<b>Heather Baez</b>	
		112015	October-November 2015 Business expense	157.24
			***Total ***	157.24
<b>ACH001781</b>	<b>12/16/15</b>	<b>BERGJO</b>	<b>Joseph Berg</b>	
		113015	November 2015 Business expense	1,409.76
			***Total ***	1,409.76
<b>ACH001784</b>	<b>12/16/15</b>	<b>DELATO</b>	<b>Harvey De La Torre</b>	
		120415	December 2015 Business expense	661.51
			***Total ***	661.51
<b>ACH001785</b>	<b>12/16/15</b>	<b>DICKEK</b>	<b>Larry Dick</b>	
		113015	November 2015 Business expense	168.51
			***Total ***	168.51
<b>ACH001789</b>	<b>12/16/15</b>	<b>FINNEG</b>	<b>Joan Finnegan</b>	
		113015	November 2015 Business expense	31.05
			***Total ***	31.05
<b>ACH001790</b>	<b>12/16/15</b>	<b>HINMAN</b>	<b>Susan Hinman</b>	
		113015	November 2015 Business expense	467.92
			***Total ***	467.92
<b>ACH001791</b>	<b>12/16/15</b>	<b>HUBBAR</b>	<b>Kelly Hubbard</b>	
		103015	October 2015 Business expense	218.18
			***Total ***	218.18
<b>ACH001796</b>	<b>12/16/15</b>	<b>GUTIER</b>	<b>Marey Gutierrez</b>	
		113015	November 2015 Business expense	27.14
			***Total ***	27.14
<b>ACH001797</b>	<b>12/16/15</b>	<b>MCKEEX</b>	<b>Larry B. McKenney</b>	
		113015	November 2015 Business expense	40.00
			***Total ***	40.00
<b>ACH001807</b>	<b>12/16/15</b>	<b>THOMAS</b>	<b>Jeffery Thomas</b>	
		113015	November 2015 Business expense	174.37
			***Total ***	174.37
<b>131313</b>	<b>12/29/15</b>	<b>GUTIER</b>	<b>Marey Gutierrez</b>	
		123115	December 2015 Business expense	91.35
			***Total ***	91.35
<b>131320</b>	<b>12/31/15</b>	<b>FRANCI</b>	<b>Pari Francisco</b>	
		123115	December 2015 Business expense	77.45
			***Total ***	77.45

**Municipal Water District of Orange County  
Disbursement Ratification Report  
For the month of December 2015**

<b>Check #</b>	<b>Date</b>	<b>Vendor # Invoice/CM #</b>	<b>Name / Description</b>	<b>Net Amount</b>
<b>131322</b>	<b>12/31/15</b>	<b>USBANK</b>	<b>U.S. Bank</b>	
		5783/6533-NOV15	10/22/15-11/23/15 Cal Card charges	12,036.71
			***Total ***	12,036.71
			(See attached sheet for details)	
	<b>12/31/15</b>	<b>BACATI</b>	<b>Tiffany Baca</b>	
<b>ACH001810</b>		121715	November-December 2015 Business expense	116.34
<b>ACH001811</b>		121715A	November-December 2015 Business expense	8.00
			***Total ***	124.34
<b>ACH001815</b>	<b>12/31/15</b>	<b>ROBERT</b>	<b>Bryce Roberto</b>	
		121415	November-December 2015 Business expense	93.96
			***Total ***	93.96
<b>Total Core Disbursements</b>				<b>20,185.08</b>

**Choice Disbursements:**

<b>131321</b>	<b>12/31/15</b>	<b>SDGE</b>	<b>San Diego Gas and Electric</b>	
		7768-DEC15	11/18/15-12/20/15 Electrical service Doheny Ocean Desal project	210.98
			***Total ***	210.98
<b>131322</b>	<b>12/31/15</b>	<b>USBANK</b>	<b>U.S. Bank</b>	
		5783-NOV15	10/22/15-11/22/15 Cal Card charges	50.55
			***Total ***	50.55
			(See attached sheet for details)	
<b>Total Choice Disbursements</b>				<b>261.53</b>

**Other Funds Disbursements:**

<b>130867</b>	<b>12/4/15</b>	<b>ATTEOC</b>	<b>AT&amp;T</b>	
		4492-NOV15	November 2015 WEROC S. EOC telephone expense	244.84
		8200-NOV15	November 2015 WEROC N. EOC telephone expense	179.46
		0532-NOV15	November 2015 WEROC N. EOC dedicated phone line	64.19
			***Total ***	488.49
<b>130878</b>	<b>12/16/15</b>	<b>ATTUVEOC</b>	<b>AT&amp;T</b>	
		8599-DEC15	December 2015 WEROC N. EOC U-verse internet service	45.00
			***Total ***	45.00
<b>130894</b>	<b>12/16/15</b>	<b>MESAWA</b>	<b>Mesa Water</b>	
		8689	October 2015 Credit for Local Resources program	5,964.50
			***Total ***	5,964.50

**Municipal Water District of Orange County**  
**Disbursement Ratification Report**  
**For the month of December 2015**

<b>Check #</b>	<b>Date</b>	<b>Vendor # Invoice/CM #</b>	<b>Name / Description</b>	<b>Net Amount</b>
	<b>12/16/15</b>	<b>TURFRP</b>	<b>Turf Removal Program</b>	
131214		TR6-ETWD-10174-	R. Woolman	2,366.00
131215		TR6-SM-6212-23622	E. Medina	744.00
131216		TR5-IRWD-339	D. Cardona	1,946.00
131217		TR5W-HB-5063	A. Franz	1,150.00
131218		TR6-YLWD-6822-4711	P. Benker	2,296.00
			***Total ***	8,502.00
<b>ACH001781</b>	<b>12/16/15</b>	<b>BERGJO</b>	<b>Joseph Berg</b>	
		113015	November 2015 Business expense	18.27
			***Total ***	18.27
	<b>12/16/15</b>	<b>HUBBAR</b>	<b>Kelly Hubbard</b>	
ACH001791		103015	October 2015 Business expense	76.87
ACH001792		113015	November 2015 Business expense	89.42
ACH001793		111915	November 2015 Business expense-IAEM conference	191.17
			***Total ***	357.46
<b>ACH001806</b>	<b>12/16/15</b>	<b>STOCKB</b>	<b>Brandon Stock</b>	
		113015	November 2015 Business expense	143.98
			***Total ***	143.98
	<b>12/23/15</b>	<b>TURFRP</b>	<b>Turf Removal Program</b>	
131227		TR5W-BP-3879	K. Roberts	1,070.00
131228		TR5W-BP-4275	D. Crisostomo	1,980.00
131229		TR6-BP-7918-7536	G. Wallace	906.00
131230		TR5-FV-030	P. Truong	840.00
131231		TR6-FV-7345-16714	M. Trapp	1,115.00
131232		TR5W-GG-4109	S. Jones	1,694.00
131233		TR6-GG-7205-11101	P. Lam	2,530.00
131234		TR5W-HB-5015	J. Tomista	2,650.00
131235		TR6-HB-6543-6162	J. Luna	1,910.00
131236		TR5W-LH-4685	P. Yee	3,282.00
131237		TR6-LH-6950-1520	M. Phillips	1,098.00
131238		TR5W-NWPT-5535	Rogers Gardens (Corona del Mar)	5,690.00
131239		TR5W-O-4048	E. Cajayon-Purvis	3,506.00
131240		TR6-O-9175-1348	C. Metz	4,472.00
131241		TR5-SC-110	K. Raes	516.00
131242		TR6-SC-10385-122	L. Herbert	700.00
131243		TR6-SC-10426-2052	J. Signo	1,262.00
131244		TR6-SC-8142-3813	M. Brady	2,174.00
131245		TR5W-SJC-5231	L. Deto	3,042.00
131246		TR6-SJC-6947-27891	G. Campbell	3,914.00
131247		TR6-TUST-9542-14632	D. Crowl	5,022.00
131248		TR6-ETWD-9746-	H. Chehayeb	1,098.00
131249		TR5-GSWC-096	N. Subat	1,062.00
131250		TR5W-GSWC-3876	R. Chaddock	248.00
131251		TR5W-GSWC-4044	H. Asghari	1,096.00
131252		TR5W-GSWC-4185	M. Amaya	3,122.00


**Municipal Water District of Orange County**  
**Disbursement Ratification Report**  
**For the month of December 2015**

<b>Check #</b>	<b>Date</b>	<b>Vendor # Invoice/CM #</b>	<b>Name / Description</b>	<b>Net Amount</b>
131253		TR6-GSWC-6435-8862	N. Myers	1,068.00
131254		TR6-GSWC-6909-	R. Loyd	1,154.00
131255		TR5W-IRWD-4230	S. Wijeyakumar	2,764.00
131256		TR6-IRWD-7270-	N. Trout	1,680.00
131257		TR6-IRWD-9672-3661	M. Moredo	1,698.00
131258		TR5W-LB-5065	M. Alexander	2,568.00
131259		TR5W-LB-5047	M. Alexander	7,770.00
131260		TR6-SM-8790-1	City of Mission Viejo	2,822.00
131261		TR5W-SOCO-4577	K. Farjo	1,602.00
131262		TR5W-SOCO-5127	G. Everroad	948.00
131263		TR5W-SOCO-5353	W. Hamilton	2,932.00
131264		TR5W-SOCO-5376	D. Sudakoff	1,827.61
131265		TR5W-SOCO-6010	P. Zoeller	1,916.00
131266		TR6-SOCO-6396-1	R. Ramsey	644.00
131267		TR6-SOCO-7065-	K. Wellbrock	1,856.00
131268		TR6-SOCO-7554-43	D. McRae	914.00
131269		TR6-SOCO-7731-	B. O'Connor	1,210.00
131270		TR6-TC-10268-21441	H. Gutcheon	1,090.00
131271		TR6-TC-7991-12	S. Biedryck	1,596.00
131272		TR6-TC-9329-21331	S. Knight	2,726.00
131273		TR6-YLWD-7648-	B. Gordon	2,148.00
131274		TR6-YLWD-9739-718	R. Cuevas	534.00
131275		TR6-SJC-6120-27515	L. Littlejohns	1,234.00
131276		TR6-YLWD-6106-5435	D. Blew	5,616.00
131283		TR6-FV-9079-8574	R. De Fusco	4,500.00
131284		TR5W-GG-4676	P. Braendle	1,448.00
131285		TR5W-HB-5857	S. Sullivan	2,594.00
131286		TR6-HB-8020-5411	J. Connors	1,754.00
131287		TR5W-LH-5324	D. Fasheh	1,348.00
131288		TR5-O-089	J. Boylan	1,578.00
131289		TR5W-O-4669	M. Dolan	1,076.00
131290		TR5W-O-5062	M. Clements	1,204.00
131291		TR6-TUST-6573-1332	A. Felix	2,736.00
131292		TR6-TUST-6607-13772	S. Smith	1,989.00
131293		TR6-TUST-7294-11602	Y. Arnett	9,000.00
131294		TR5W-GSWC-3091	R. Nitta	1,116.00
131295		TR5W-GSWC-4567	D. Sueme	1,250.00
131296		TR5W-GSWC-5081	S. Hayman	2,530.00
131297		TR5W-GSWC-5877	J. Bowler	2,320.00
131298		TR6-IRWD-8613-	A. Berthe	1,346.00
131299		TR6-IRWD-9312-39	E. Scott	1,118.00
131300		TR5W-MESA-3746	J. Bouchey	4,282.00
131301		TR5W-MNT-1730	R. or S. Perry	14,080.00
131302		TR5W-MNT-4110	T. Faber	4,785.00
131303		TR5W-MNT-4167	K. Harris	3,184.00
131304		TR6-MNT-7463-26822	R. Lerman	2,074.50
131305		TR6-SM-10122-19	R. Sladek	2,252.00
131306		TR6-SM-9650-16	J. Coleman	1,742.00
131307		TR5W-SOCO-4566	D. McLane	1,644.00



**Municipal Water District of Orange County  
Disbursement Ratification Report  
For the month of December 2015**

<b>Check #</b>	<b>Date</b>	<b>Vendor # Invoice/CM #</b>	<b>Name / Description</b>	<b>Net Amount</b>
<b>131308</b>		TR5W-SOCO-5359	W. Hamilton	2,538.00
<b>131309</b>		TR5W-TC-4048	J. Truong	1,920.00
			***Total ***	183,725.11
<b>WIRE-151230</b>	<b>12/30/15</b>	<b>METWAT</b>	<b>Metropolitan Water District</b>	
		8512	October 2015 Water Deliveries	10,627,069.94
			***Total ***	10,627,069.94
	<b>12/31/15</b>	<b>CATALI</b>	<b>Catalina Island Conservancy</b>	
<b>131317</b>		0012169	December 2015 WEROC radio repeater site lease	1,558.54
			***Total ***	1,558.54
	<b>12/31/15</b>	<b>USBANK</b>	<b>U.S. Bank</b>	
<b>131322</b>		5783-NOV15	10/22/15-11/22/15 Cal Card charges	57.48
			***Total ***	57.48
			(See attached sheet for details)	
	<b>12/31/15</b>	<b>SANTAM</b>	<b>Santa Margarita Water District</b>	
<b>ACH001816</b>		OCT2015	October 2015 SCP Operation surcharge	23,031.32
			***Total ***	23,031.32
<b>Total Other Funds Disbursements</b>				<b>10,850,962.09</b>
<b>Total Disbursements</b>				<b>10,871,408.70</b>

  
Robert J. Hunter, General Manager

  
Hilary Chumpitazi, Treasurer

**Cal Card Statement Detail**  
**Statement Date: November 23, 2015**  
**Payment Date: December 31, 2015**

Date	Description	Amount
<b><u>K. Seckel Card</u></b>		
10/22/15	FedEx delivery charges for MET on 10/20/15	\$ 30.73
10/21/15	CRWUA Annual conference in Las Vegas, NV from Dec. 16-18, 2015 - Accommodations for Director Barbre	598.72 [1]
10/23/15	National Water Research Institute Clark Prize and Award ceremony in Huntington Beach, CA on Oct. 30, 2015 - Registration for R. Bell	151.78
10/22/15	CRWUA Annual conference in Las Vegas, NV from Dec. 16-18, 2015 - Airfare for Director Barbre	555.96 [2]
10/26/15	7 Toner cartridges	394.85
10/26/15	Orange County Business Council Economic Forecast conference in Irvine, CA on Oct. 29, 2015 - Registration for Director Thomas	160.00
10/27/15	Association of Metropolitan Water Agencies International Water & Climate forum in Coronado, CA from Dec. 7-9, 2015 - Registration for R. Hunter	695.00
10/27/15	UPS delivery charges for Board & Committee packets on 10/16/15	57.40
10/27/15	Association of Metropolitan Water Agencies International Water & Climate Forum in Coronado, CA from Dec. 7-9, 2015 - Accommodations for R. Hunter	199.00
10/28/15	Lunch for legislative advocacy interviews	154.00
10/28/15	Lunch for legislative coordinators	224.00
10/29/15	Lunch for MWDOC staff on OCWD tour	138.75
10/29/15	CRWUA Annual conference in Las Vegas, NV from Dec. 16-18, 2015 - Airfare for R. Hunter	187.97
10/29/15	Legislative activities in Washington, DC from Jan. 14-15, 2016 - Airfare for Director Barbre	663.19 [3]
10/29/15	Legislative activities in Washington, DC from Feb. 11-12, 2016 - Airfare for Director Barbre	717.19 [4]
10/29/15	Legislative activities in Washington, DC from Feb. 24-25, 2016 - Airfare for Director Barbre	663.19 [5]
11/02/15	Lunch for Orange County MET Managers' meeting	224.00
11/03/15	UPS delivery charges for Board & Committee packets on 10/28/15	49.46
11/04/15	Google AdWords campaign to promote water conservation and rebates	0.55
11/09/15	Computer components	620.00
11/09/15	Lunch for Santa Margarita Water District Cadiz meeting	174.00
11/10/15	UPS delivery charges for Board & Committee packets on 10/30/15	53.55
11/12/15	11/12/15-11/12/16 Prezi presentation software subscription	236.00
11/17/15	FedEx delivery charges for James Barker on 11/12/15	28.36
11/17/15	California Society of Municipal Finance Officers meeting in Aliso Viejo, CA on Dec. 17, 2015 - Registration for H. Chumpitazi	30.00
11/17/15	Computer components	309.30
11/17/15	UPS delivery charges for Board & Committee packets on 10/16/15, 11/6/15, 11/10/15 and California Ts on 11/10/15	132.46

**Cal Card Statement Detail**  
**Statement Date: November 23, 2015**  
**Payment Date: December 31, 2015**

Date	Description	Amount
11/17/15	Office supplies from Costco	500.38
11/17/15	Christmas tree for MWDOC office	117.95
11/17/15	CRWUA Annual conference in Las Vegas, NV from Dec. 16-18, 2015 - Registration for H. De La Torre refund	(425.00)
11/17/15	CRWUA Annual membership renewal for H. De La Torre refund	(20.00)
11/17/15	12/15/15 Partial payment for Staff holiday luncheon	1,020.00
11/18/15	5 Toner cartridges	255.10
11/18/15	CRWUA Annual conference in Las Vegas, NV from Dec. 16-18, 2015 - Accommodations for H. De La Torre refund	(331.52)
11/19/15	3 Year protection plan for Fujitsu color scanner	78.63
11/19/15	International Association of Emergency Managers USA Annual conference in Las Vegas, NV from Nov. 14-19, 2015 - Balance of meals and internet for K. Hubbard	57.48
11/19/15	2016 California Chamber of Commerce membership renewal	449.00
11/19/15	Annual subscription for Adobe PDF to Word converter	23.88
11/20/15	Legislative activities in Washington, DC from Nov. 18-20, 2015 - Accommodations for Director Barbre	840.82 <sup>5</sup>
11/20/15	Legislative activities in Washington, DC from Nov. 18-20, 2015 - Accommodations for H. Baez	400.02
11/20/15	1 Fujitsu color scanner	871.51
11/20/15	Google AdWords campaign to promote water conservation and rebates	50.00
<b>Total</b>		<b><u>\$ 11,337.66</u></b>

- <sup>1</sup> R. Barbre to reimburse MWDOC \$76.52 and Caesars Palace credited \$123.48 on 12/18/15
- <sup>2</sup> R. Barbre to reimburse MWDOC \$184.00 and Southwest credited \$277.98 on 12/18/15
- <sup>3</sup> R. Barbre to reimburse MWDOC \$259.00
- <sup>4</sup> R. Barbre to reimburse MWDOC \$259.00
- <sup>5</sup> R. Barbre to reimburse MWDOC \$259.00
- <sup>6</sup> R. Barbre reimbursed MWDOC \$332.32

**R. Hunter Card**

10/23/15-11/23/15	Meals for R. Hunter's meetings on various dates	\$ 154.74
11/05/15	Food for Elected Officials' forum	652.34
<b>Total</b>		<b><u>\$ 807.08</u></b>

**Municipal Water District of Orange County**  
**GM Approved Disbursement Report <sup>(1)</sup>**  
**For the month of December 2015**

<i>Check #</i>	<i>Date</i>	<i>Vendor # Invoice/CM #</i>	<i>Name / Description</i>	<i>Net Amount</i>
<b>Core Disbursements:</b>				
131312	12/23/15	USPOST 2016-BOX20895	U.S. Postal Service 2016 P.O. Box annual fee	1,224.00
			***Total ***	1,224.00
			<b>Total Core Disbursements</b>	<u>1,224.00</u>
<b>Choice Disbursements:</b>				
			<b>Total Choice Disbursements</b>	<u>0.00</u>
<b>Other Funds Disbursements:</b>				
131225	12/17/15	OCWD 121715	Orange County Water District 6/30/15 MET Groundwater Storage program (CUP) funding balance	2,237,830.00
			***Total ***	2,237,830.00
			<b>Total Other Funds Disbursements</b>	<u>2,237,830.00</u>
			<b>Total Disbursements</b>	<u><u>2,239,054.00</u></u>



Robert J. Hunter, General Manager



Hilary Chumpitazi, 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  
WATER USE EFFICIENCY PROJECTS  
Cash Flow as of 11/30/15

	Jul 2015	Aug 2015	Sep 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	Jun 2016	TOTALS
Cash - Beginning Balance	\$ (4,366,336.14)	\$ (4,150,715.21)	\$ (866,085.23)	\$ (2,898,017.49)	\$ (3,394,231.09)	\$ (3,796,564.33)	\$ (4,010,296.92)	\$ (4,010,296.92)	\$ (4,010,296.92)	\$ (4,010,296.92)	\$ (4,010,296.92)	\$ (4,010,296.92)	\$ (4,010,296.92)
<b>REVENUES:</b>													
BUREC													\$ 511,876.75
City of Brea	6,999.33	1,934.35	389.42	247.74	496,524.08	15,352.67							10,924.72
City of Buena Park	1,212.97	1,886.23	846.00	2,716.00	2,271.97	248.13							9,569.30
City of Fountain Valley		150.00			150.00	636.13							300.00
City of Fullerton		225.00		150.00	67.75								442.75
City of Garden Grove	1,995.00	1,650.00	2,914.00	4,224.00	2,770.81								13,553.81
City of Huntington Beach		325.66	294.00	211.54									831.20
City of La Habra	1,050.00	599.53	2,451.89	582.00	1,067.00	735.00							6,485.42
City of San Clemente	4,925.18		9,588.07	5,141.99	3,911.00	2,499.51							26,065.75
City of San Juan Capistrano	3,344.86	2,142.95		11,481.16	2,063.23	1,680.00							20,712.20
City of Santa Ana		75.00	150.00	75.00									300.00
City of Tustin		246.86		300.00		75.00							621.86
City of Newport Beach		840.00	3,264.97	4,096.04									8,201.01
City of Orange	4,297.93		14,879.13	5,622.50	6,713.19	3,417.89							34,930.64
City of Westminster			75.00										75.00
County of Orange													-
Department of Water Resources		649,130.64	1,824.70		1,568.28								652,523.62
East Orange County Water District													-
El Toro Water District	2,633.00	5,676.22	2,016.61	1,328.86		129.00							12,333.69
East Orange County Water District													-
Golden State Water Company	6,555.20	6,985.72	12,246.61	9,373.88	7,563.09	4,890.00							47,614.50
Irvine Ranch Water District	116,113.61	30,550.23	43,139.41	45,081.83	4,525.99	8,131.72							247,542.79
Laguna Beach County Water District	1,840.00	16,506.86	1,259.00	2,257.00	713.99	210.00							22,766.85
Mesa Water District		75.00	150.00										225.00
Metropolitan Water District	194,847.61	4,001,136.01	434,924.75	1,369,139.07	1,308,972.63	936,576.61							8,245,596.68
Moulton Niguel Water District	359,285.60	244,320.71	3,654.58	152,561.75	122,311.65	246,642.32							1,127,776.61
MWD OC													-
Santa Margarita Water District		1,035.00	458.43	1,482.03	525.00	2,955.00							6,455.46
Serrano Water District		75.00		75.00									150.00
South Coast Water District				225.00									225.00
Trabuco Canyon Water District	800.00	1,072.37	300.00	1,175.00	406.25	1,431.73							5,185.35
Yorba Linda Water District	80.66		517.75	437.46		856.39							1,892.26
<b>Miscellaneous Revenues</b>													-
Miscellaneous													-
Interest Revenue													-
<b>Total Revenues</b>	<b>704,980.95</b>	<b>4,986,639.34</b>	<b>535,344.32</b>	<b>1,617,984.85</b>	<b>1,963,761.66</b>	<b>1,228,487.10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 11,015,198.22</b>
<b>EXPENDITURES:</b>													
Aqueduct	1,500.00	1,500.00	1,500.00	1,800.00	1,800.00	1,800.00							\$ 9,900.00
Autumn Print Group				207.36									207.36
Awards & Trophies					28.74								28.74
Conservation Consulting, LLC	7,645.50	7,899.75	7,452.00	7,508.25	7,501.50	7,173.00							45,180.00
City of Newport Beach													-
El Toro WD	28,501.27												28,501.27
Enterprise Information Systems			2,160.00										2,160.00
Eco Landscape													18,989.30
Golden State Water Company	31,300.00				11,141.80	7,827.50							31,300.00
Hotel Program					150,160.05	11,539.17							11,539.17
Industrial Program													150,160.05
Irvine Ranch Water District													-
Karen's Detail Custom Frames		48.60											48.60
Laguna Beach CWD	26,036.00												26,036.00
Metropolitan Water District													-
MESA		32,650.22	47,850.46	41,311.01	37,048.67	36,017.86							225,356.53
Mission RCD	30,478.31												30,478.31
Public Spaces program			251,945.00	55,939.00	168,760.00								476,544.00
Santa Margarita Water District	10,813.50												10,813.50
South Coast Water District	90,048.00												90,048.00
Spray to Drip program	1,557.61		27,688.12	15,622.66	5,552.86	12,246.77							62,668.02
Survey Gizmo				675.00									675.00
Turf Removal	253,213.58	1,639,959.39	2,212,359.63	1,988,139.02	1,984,121.28	1,363,595.39							9,441,388.29
US Bank													-
UPS													-
Waterwise Consulting													-
<b>Miscellaneous Expenses</b>													-
Interest Expense	3,817.57			2,996.15									6,813.72
Salary & Benefit	4,448.68		16,372.77										20,821.45
<b>Total Expenditures</b>	<b>489,380.02</b>	<b>1,682,009.36</b>	<b>2,567,276.58</b>	<b>2,114,193.45</b>	<b>2,386,114.80</b>	<b>1,440,199.69</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 10,659,159.00</b>
<b>Cash - Ending Balance</b>	<b>\$ (4,150,715.21)</b>	<b>\$ (866,085.23)</b>	<b>\$ (2,898,017.49)</b>	<b>\$ (3,394,231.09)</b>	<b>\$ (3,796,564.33)</b>	<b>\$ (4,010,296.92)</b>	<b>\$ (4,010,296.92)</b>	<b>\$ (4,010,296.92)</b>	<b>\$ (4,010,296.92)</b>	<b>\$ (4,010,296.92)</b>	<b>\$ (4,010,296.92)</b>	<b>\$ (4,010,296.92)</b>	<b>\$ 10,659,159.00</b>





**Municipal Water District of Orange County**  
**Consolidated Summary of Cash and Investment**  
November 30, 2015

*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](http://www.mwdoc.com)

Larry D. Dick  
*President*

Wayne S. Osborne  
*Vice President*

Brett R. Barbre  
*Director*

Joan C. Finnegan  
*Director*

Susan Hinman  
*Director*

Sat Tamaribuchi  
*Director*

Jeffery 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

City of San Juan Capistrano

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
<b>Designated Reserves</b>		
General Operations	\$2,494,603	19.73%
Grant & Project Cash Flow	1,480,000	11.71%
Election Expense	215,463	1.70%
Building Repair	<u>500,407</u>	<u>3.96%</u>
<b>Total Designated Reserves</b>	<b>4,690,473</b>	<b>37.10%</b>
General Fund	6,381,700	50.48%
Water Fund	5,116,891	40.47%
Conservation Fund	(3,796,564)	(30.03%)
Desalination Feasibility Study Fund	222,385	1.76%
WEROC Fund	18,986	0.15%
Trustee Activities	8,620	0.07%
<b>Total</b>	<b>\$12,642,491</b>	<b>100.00%</b>

The funds are invested as follows:

Term of Investment	% of Portfolio	Book Value	Market Value
Cash	1.07%	\$135,829	\$135,829
Short-term investment			
• LAIF	1.24%	\$157,237	\$157,237
• OCIP	73.17%	9,249,363	9,249,363
Long-term investment			
• Misc. Securities	7.91%	1,000,062	999,640
• Certificates of Deposit	16.61%	2,100,000	2,106,224
<b>Total</b>	<b>100.00%</b>	<b>\$12,642,491</b>	<b>\$12,648,293</b>

The average number of days to maturity/call as of November 30, 2015 equaled 226 and the average yield to maturity is 0.859%. During the month, the District's average daily balance was \$18,434,505.08. Funds were invested in Federal Agency Issues, Certificates of Deposit, Negotiable CD's, Miscellaneous Securities, the Local Agency Investment Funds (LAIF) and the Orange County Investment Pool (OCIP) during the month of November 2015.

The \$5,802 difference between the book value and the market value on November 30, 2015 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 November 30, 2015

11/30/2015	Par Value	Market Value	Book Value	% of Portfolio	Days to Mat/Call	YTM @ Cost
Certificates of Deposit - Bank	2,100,000.00	2,106,224.50	2,100,000.00	16.79	978	1.598
Local Agency Investment Funds	157,236.81	157,236.81	157,236.81	1.26	1	0.374
Miscellaneous Securities - Coupon	1,000,000.00	999,640.00	1,000,062.49	8.00	763	2.628
Orange County Investment Pool	9,249,362.56	9,249,362.56	9,249,362.56	73.96	1	0.508
<b>Total Investments</b>	<b>12,506,599.37</b>	<b>12,512,463.87</b>	<b>12,506,661.86</b>	<b>100.00%</b>	<b>226</b>	<b>0.859</b>

<b>Cash</b>						
Passbook Checking	135,828.77	135,828.77	135,828.77		1	0.00
<b>Total Cash and Investments</b>	<b>12,642,428.14</b>	<b>12,648,292.64</b>	<b>12,642,490.63</b>		<b>226</b>	<b>0.859</b>

<b>Total Earnings</b>	<b>Month Ending November</b>	<b>Fiscal Year to Date</b>
<b>Current Year</b>	<b>7,222.52</b>	<b>51,508.97</b>
<b>Average Daily Balance</b>	<b>18,434,505.08</b>	
<b>Effective Rate of Return</b>	<b>0.859%</b>	

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 Union Bank.

 Robert J. Hunter, General Manager 1-7-16 Date

 Hilary Chumitazi, Treasurer 1/7/16 Date

## Portfolio Management

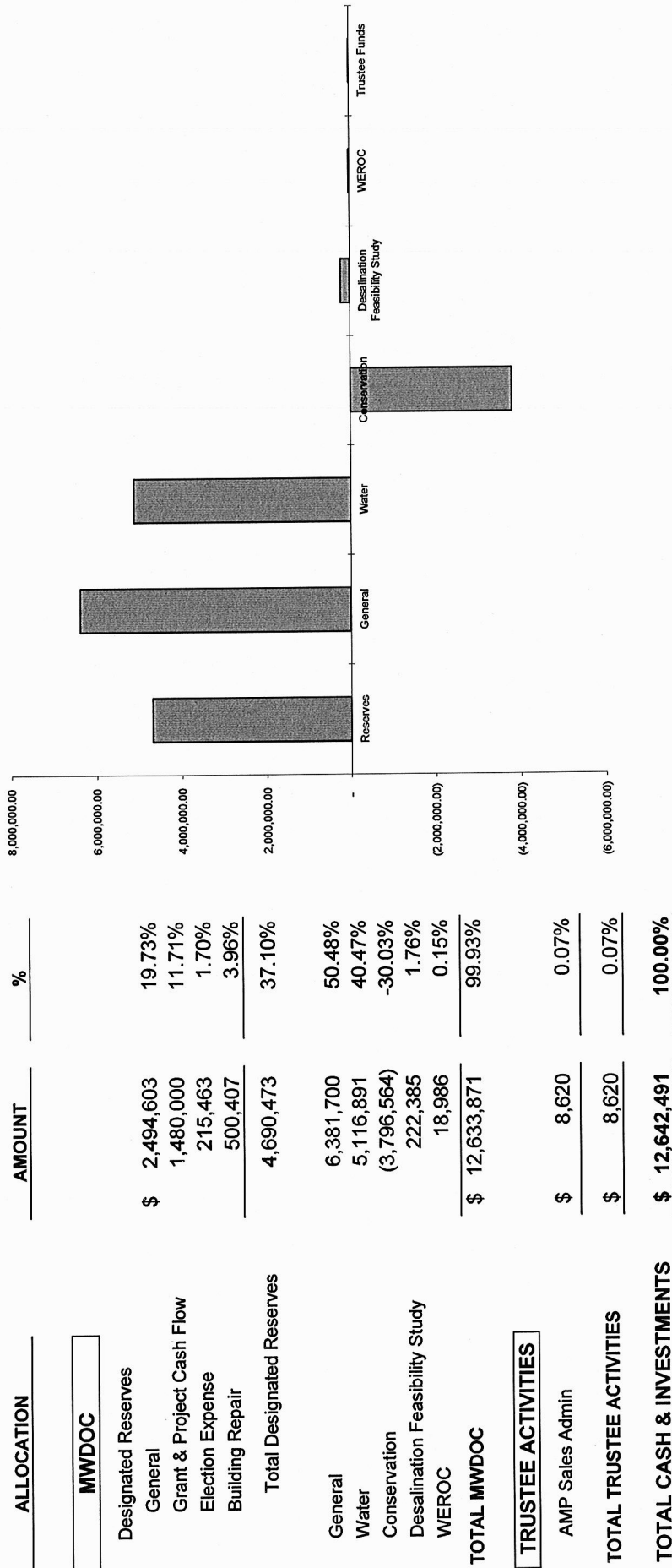
Total Earnings	Month Ending November	Fiscal Year To Date
Current Year	1,802.22	23,318.83



## November 30, 2015

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	157,236.81	157,236.81	157,236.81	0.374	0.374	1	N/A
Sub Total			157,236.81	157,236.81	157,236.81	0.374	0.374	1	
Orange County Investment Pool									
County of Orange LGIP	OCIP	6/29/2005	9,249,362.56	9,249,362.56	9,249,362.56	0.508	0.508	1	N/A
Sub Total			9,249,362.56	9,249,362.56	9,249,362.56	0.508	0.508	1	
Total Investments									
			9,406,599.37	9,406,599.37	9,406,599.37	0.506	0.506		
Passbook Checking									
Bank of America Cash	CASH0547	7/1/2011	135,328.77	135,328.77	135,328.77	0.000	0.000	1	N/A
Petty Cash Cash	CASH	7/1/2011	500.00	500.00	500.00	0.000	0.000	1	N/A
Total Cash			135,828.77	135,828.77	135,828.77	0.000	0.000	1	
Total Cash and Investments									
			9,542,428.14	9,542,428.14	9,542,428.14	0.506	0.506	1	
Total Earnings									
Current Year		Month Ending November	5,420.30	Fiscal Year To Date	28,190.14				

**Municipal Water District of Orange County  
Cash and Investments at November 30, 2015**



**Municipal Water Dist of Orange County  
PARS OPEB Trust Program****Monthly Account Report for the Period  
11/01/2015 to 11/30/2015**

Rob Hunter  
General Manager  
Municipal Water Dist of Orange County  
18700 Ward Street  
Fountain Valley, CA 92708

**Account Summary**

Source	Beginning Balance as of 11/01/2015	Contributions	Earnings	Expenses*	Distributions	Transfers	Ending Balance as of 11/30/2015
Contributions	\$1,278,601.34	\$0.00	\$123.25	\$936.63	\$0.00	\$0.00	\$1,277,787.96
Totals	\$1,278,601.34	\$0.00	\$123.25	\$936.63	\$0.00	\$0.00	\$1,277,787.96

**Investment Selection**

Moderate HighMark PLUS

**Investment Objective**

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**

Annualized Return						Plan's Inception Date
1-Month	3-Month	1-Year	3-Years	5-Years	10-Years	
0.01%	1.92%	1.01%	7.09%	-	-	10/26/2011

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.

\*Expenses are inclusive of Trust Administration, Trustee and Investment Management fees

**MUNICIPAL WATER DISTRICT OF ORANGE COUNTY**  
**COMBINED FINANCIAL STATEMENTS**  
**AND**  
**BUDGET COMPARATIVE**  
**JULY 1, 2015 THRU NOVEMBER 30, 2015**

**Municipal Water District of Orange County  
Combined Balance Sheet  
As of November 30, 2015**

<b><u>ASSETS</u></b>	<b>Amount</b>
Cash in Bank	135,828.77
Investments	12,506,661.86
Accounts Receivable	25,714,233.95
Accounts Receivable - Other	1,312,018.93
Accrued Interest Receivable	25,655.46
Prepays/Deposits	558,532.48
Leasehold Improvements	3,026,974.08
Furniture, Fixtures & Equipment	436,910.44
Less: Accum Depreciation	(2,539,643.42)
Net OPEB Asset	92,806.00
	<hr/>
<b>TOTAL ASSETS</b>	<b>\$41,269,978.55</b>
	<hr/>
<b><u>LIABILITIES AND FUND BALANCES</u></b>	
<b>Liabilities</b>	
Accounts Payable	22,500,034.92
Accounts Payable - Other	1,378.37
Accrued Salaries and Benefits Payable	298,170.71
OCWD Cup Balance Payable	2,632,046.00
Other Liabilities	1,498,867.07
Unearned Revenue	2,302,261.15
Total Liabilities	<hr/> 29,232,758.22 <hr/>
<b>Fund Balances</b>	
Restricted Fund Balances	
Water Fund - T2C	958,781.94
Total Restricted Fund Balances	<hr/> 958,781.94 <hr/>
Unrestricted Fund Balances	
Designated Reserves	
General Operations	2,587,408.51
Grant & Project Cash Flow	1,480,000.00
Election Expense	215,463.03
Building Repair	500,407.45
Total Designated Reserves	<hr/> 4,783,278.99 <hr/>
GENERAL FUND	1,307,553.79
WEROC	83,059.22
Total Unrestricted Fund Balances	<hr/> 6,173,892.00 <hr/>
Excess Revenue over Expenditures	
Operating Fund	5,372,881.95
Other Funds	(468,335.56)
Total Fund Balance	<hr/> 12,037,220.33 <hr/>
<b>TOTAL LIABILITIES AND FUND BALANCES</b>	<b>\$41,269,978.55</b>

**Municipal Water District of Orange County**  
**Revenues and Expenditures Budget Comparative Report**  
**General Fund**  
**From July thru November 2015**

	Month to Date	Year to Date	Annual Budget	% Used	Encumbrance	Budget Remaining
<b><u>REVENUES</u></b>						
Retail Connection Charge	<u>0.00</u>	<u>6,686,659.70</u>	<u>6,687,322.00</u>	<u>99.99%</u>	<u>0.00</u>	<u>662.30</u>
Water rate revenues	0.00	6,686,659.70	6,687,322.00	99.99%	0.00	662.30
Interest Revenue	<u>8,272.44</u>	<u>55,500.11</u>	<u>117,675.00</u>	<u>47.16%</u>	<u>0.00</u>	<u>62,174.89</u>
Subtotal	<u>8,272.44</u>	<u>6,742,159.81</u>	<u>6,804,997.00</u>	<u>99.08%</u>	<u>0.00</u>	<u>62,837.19</u>
Choice Programs	0.01	1,340,182.62	1,302,619.00	102.88%	0.00	(37,563.62)
Choice Prior Year Carry Over	0.00	0.00	243,338.00	0.00%	0.00	243,338.00
Miscellaneous Income	0.00	107,946.39	3,000.00	3598.21%	0.00	(104,946.39)
School Contracts	0.00	0.00	70,000.00	0.00%	0.00	70,000.00
Delinquent Payment Penalty	0.00	173.98	0.00	0.00%	0.00	(173.98)
Transfer-Out To Reserve	<u>0.00</u>	<u>0.00</u>	<u>(64,424.00)</u>	<u>0.00%</u>	<u>0.00</u>	<u>(64,424.00)</u>
Subtotal	<u>0.01</u>	<u>1,448,302.99</u>	<u>1,554,533.00</u>	<u>93.17%</u>	<u>0.00</u>	<u>106,230.01</u>
<b>TOTAL REVENUES</b>	<u>8,272.45</u>	<u>8,190,462.80</u>	<u>8,359,530.00</u>	<u>97.98%</u>	<u>0.00</u>	<u>169,067.20</u>

**Municipal Water District of Orange County**  
**Revenues and Expenditures Budget Comparative Report**  
**General Fund**  
**From July thru November 2015**

	Month to Date	Year to Date	Annual Budget	% Used	Encumbrance	Budget Remaining
<b><u>EXPENSES</u></b>						
Salaries & Wages	234,213.95	1,218,414.71	3,309,949.00	36.81%	0.00	2,091,534.29
Salaries & Wages - Grant Recovery	0.00	(16,486.77)	(23,500.00)	70.16%	0.00	(7,013.23)
Directors' Compensation	14,623.35	71,834.00	220,588.00	32.56%	0.00	148,754.00
MWD Representation	9,748.90	48,487.95	126,050.00	38.47%	0.00	77,562.05
Employee Benefits	62,619.02	324,811.55	863,069.00	37.63%	0.00	538,257.45
OPEB Annual Contribution	0.00	0.00	105,188.00	0.00%	0.00	105,188.00
Employee Benefits - Grant Recovery	0.00	(4,334.68)	0.00	0.00%	0.00	4,334.68
Director's Benefits	4,724.30	24,322.89	60,024.00	40.52%	0.00	35,701.11
Health Ins \$'s for Retirees	9,612.98	23,137.12	50,387.00	45.92%	0.00	27,249.88
Training Expense	417.18	1,814.68	18,000.00	10.08%	0.00	16,185.32
Tuition Reimbursement	0.00	0.00	5,000.00	0.00%	0.00	5,000.00
Temporary Help Expense	0.00	1,259.54	0.00	0.00%	0.00	(1,259.54)
Personnel Expenses	335,959.68	1,693,260.99	4,734,755.00	35.76%	0.00	3,041,494.01
Engineering Expense	20,183.60	145,058.23	300,000.00	48.35%	101,954.71	52,987.06
Legal Expense	12,015.08	71,433.76	355,000.00	20.12%	278,566.24	5,000.00
Audit Expense	635.00	20,600.00	23,000.00	89.57%	0.00	2,400.00
Professional Services	101,865.35	468,468.48	1,541,837.00	30.38%	383,406.51	689,962.01
Professional Fees	134,699.03	705,560.47	2,219,837.00	31.78%	763,927.46	750,349.07
Conference-Staff	451.78	6,296.78	19,450.00	32.37%	0.00	13,153.22
Conference-Directors	160.00	4,510.00	9,800.00	46.02%	0.00	5,290.00
Travel & Accom.-Staff	2,051.88	12,587.82	56,510.00	22.28%	0.00	43,922.18
Travel & Accom.-Directors	2,726.24	5,937.75	27,600.00	21.51%	0.00	21,662.25
Travel & Conference	5,389.90	29,332.35	113,360.00	25.88%	0.00	84,027.65
Membership/Sponsorship	35,972.94	84,725.20	103,961.00	81.50%	0.00	19,235.80
CDR Support	0.00	19,869.76	39,740.00	50.00%	19,869.74	0.50
Dues & Memberships	35,972.94	104,594.96	143,701.00	72.79%	19,869.74	19,236.30
Business Expense	424.74	2,179.05	6,800.00	32.04%	0.00	4,620.95
Maintenance Office	8,091.79	37,639.18	126,670.00	29.71%	72,088.45	16,942.37
Building Repair & Maintenance	221.46	4,434.36	11,000.00	40.31%	6,565.64	0.00
Storage Rental & Equipment Lease	1,041.66	4,978.64	19,000.00	26.20%	13,021.36	1,000.00
Office Supplies	3,422.54	14,749.06	29,400.00	50.17%	2,653.42	11,997.52
Postage/Mail Delivery	796.56	3,758.64	11,285.00	33.31%	346.19	7,180.17
Subscriptions & Books	0.00	185.82	2,060.00	9.02%	0.00	1,874.18
Reproduction Expense	134.70	1,429.47	70,010.00	2.04%	37.30	68,543.23
Maintenance-Computers	669.60	4,160.27	7,100.00	58.60%	2,137.16	802.57
Software Purchase	599.00	5,477.51	18,500.00	29.61%	0.00	13,022.49
Software Support	1,300.78	19,076.04	34,000.00	56.11%	0.00	14,923.96
Computers and Equipment	309.30	15,630.65	21,150.00	73.90%	0.00	5,519.35
Automotive Expense	1,303.15	6,207.64	13,500.00	45.98%	0.00	7,292.36
Toll Road Charges	81.32	230.17	1,275.00	18.05%	0.00	1,044.83
Insurance Expense	8,373.30	40,389.55	96,000.00	42.07%	0.00	55,610.45
Utilities - Telephone	1,591.06	7,552.20	15,650.00	48.26%	0.00	8,097.80
Bank Fees	817.46	4,131.87	17,900.00	23.08%	0.00	13,768.13
Miscellaneous Expense	8,478.30	21,952.80	98,770.00	22.23%	2,250.00	74,567.20
MWDOC's Contrb. To WEROC	11,817.25	59,086.25	141,807.00	41.67%	0.00	82,720.75
Depreciation Expense	1,000.34	5,001.76	0.00	0.00%	0.00	(5,001.76)
Other Expenses	50,474.31	258,250.93	741,877.00	34.81%	99,099.52	384,526.55
MWDOC's Building Expense	12,719.55	22,224.55	400,000.00	5.56%	2,975.00	374,800.45
Capital Acquisition	0.00	4,356.60	6,000.00	72.61%	0.00	1,643.40
<b>TOTAL EXPENSES</b>	<b>575,215.41</b>	<b>2,817,580.85</b>	<b>8,359,530.00</b>	<b>33.71%</b>	<b>885,871.72</b>	<b>4,656,077.43</b>
<b>NET INCOME (LOSS)</b>	<b>(566,942.96)</b>	<b>5,372,881.95</b>	<b>0.00</b>			

**Municipal Water District of Orange County**  
**Revenues and Expenditures Budget Comparative Report**  
**Water Fund**  
**From July thru November 2015**

	Month to Date	Year to Date	Annual Budget	% Used	Budget Remaining
<b><u>WATER REVENUES</u></b>					
Water Sales	12,089,883.70	55,740,281.60	139,025,078.00	40.09%	83,284,796.40
Readiness to Serve Charge	1,100,435.75	5,502,178.75	13,214,277.00	41.64%	7,712,098.25
Capacity Charge CCF	368,705.00	1,843,525.00	4,424,460.00	41.67%	2,580,935.00
SCP Surcharge	12,695.96	116,492.36	380,000.00	30.66%	263,507.64
Interest	400.40	1,831.55	2,900.00	63.16%	1,068.45
<b>TOTAL WATER REVENUES</b>	<b>13,572,120.81</b>	<b>63,204,309.26</b>	<b>157,046,715.00</b>	<b>40.25%</b>	<b>93,842,405.74</b>
<b><u>WATER PURCHASES</u></b>					
Water Sales	12,089,883.70	55,740,281.60	139,025,078.00	40.09%	83,284,796.40
Readiness to Serve Charge	1,100,435.75	5,502,178.75	13,214,277.00	41.64%	7,712,098.25
Capacity Charge CCF	368,705.00	1,843,525.00	4,424,460.00	41.67%	2,580,935.00
SCP Surcharge	12,695.96	116,492.36	380,000.00	30.66%	263,507.64
<b>TOTAL WATER PURCHASES</b>	<b>13,571,720.41</b>	<b>63,202,477.71</b>	<b>157,043,815.00</b>	<b>40.25%</b>	<b>93,841,337.29</b>
<b>EXCESS OF REVENUE OVER EXPENDITURES</b>	<b>400.40</b>	<b>1,831.55</b>	<b>2,900.00</b>		



**Municipal Water District of Orange County**  
**WUE Revenues and Expenditures (Actuals vs Budget)**  
**From July thru November 2015**

	Year to Date Actual	Annual Budget	% Used
<b>Landscape Performance Certification</b>			
Revenues	23,125.41	118,900.00	19.45%
Expenses	<u>39,827.50</u>	<u>118,900.00</u>	33.50%
Excess of Revenues over Expenditures	(16,702.09)	0.00	
<b>Industrial Water Use Reduction</b>			
Revenues	150,208.65	91,236.00	164.64%
Expenses	<u>150,237.39</u>	<u>91,236.00</u>	164.67%
Excess of Revenues over Expenditures	(28.74)	0.00	
<b>Spray To Drip Conversion</b>			
Revenues	55,078.65	57,109.58	96.44%
Expenses	<u>51,221.60</u>	<u>57,109.58</u>	89.69%
Excess of Revenues over Expenditures	3,857.05	0.00	
<b>Water Smart Landscape for Public Property</b>			
Revenues	0.00	137,871.04	0.00%
Expenses	<u>476,647.68</u>	<u>137,871.04</u>	345.72%
Excess of Revenues over Expenditures	(476,647.68)	0.00	
<b>Member Agency Administered Passthru</b>			
Revenues	0.00	627,000.00	0.00%
Expenses	<u>0.00</u>	<u>627,000.00</u>	0.00%
Excess of Revenues over Expenditures	0.00	0.00	
<b>ULFT Rebate Program</b>			
Revenues	225,980.81	658,000.00	34.34%
Expenses	<u>248,562.04</u>	<u>658,000.00</u>	37.78%
Excess of Revenues over Expenditures	(22,581.23)	0.00	
<b>HECW Rebate Program</b>			
Revenues	183,043.51	696,000.00	26.30%
Expenses	<u>197,276.29</u>	<u>696,000.00</u>	28.34%
Excess of Revenues over Expenditures	(14,232.78)	0.00	
<b>CII Rebate Program</b>			
Revenues	104,100.00	509,000.00	20.45%
Expenses	<u>54,700.00</u>	<u>509,000.00</u>	10.75%
Excess of Revenues over Expenditures	49,400.00	0.00	
<b>Large Landscape Survey</b>			
Revenues	12,935.63	85,000.00	15.22%
Expenses	<u>10,479.50</u>	<u>85,000.00</u>	12.33%
Excess of Revenues over Expenditures	2,456.13	0.00	
<b>Indoor-Outdoor Survey</b>			
Revenues	4,491.63	6,800.00	66.05%
Expenses	<u>1.42</u>	<u>6,800.00</u>	0.02%
Excess of Revenues over Expenditures	4,490.21	0.00	
<b>Turf Removal Program</b>			
Revenues	8,277,603.31	19,075,000.00	43.40%
Expenses	<u>8,280,567.86</u>	<u>19,075,000.00</u>	43.41%
Excess of Revenues over Expenditures	(2,964.55)	0.00	

**Municipal Water District of Orange County**  
**WUE & Other Funds Revenues and Expenditures (Actuals vs Budget)**  
**From July thru November 2015**

	Year to Date Actual	Annual Budget	% Used
<b>Comprehensive Landscape (CLWUE)</b>			
Revenues	11,059.88	281,926.00	3.92%
Expenses	20,288.64	281,926.00	7.20%
Excess of Revenues over Expenditures	(9,228.76)	0.00	
<b>Home Certification and Rebate</b>			
Revenues	167,235.28	210,205.00	79.56%
Expenses	106,024.17	210,205.00	50.44%
Excess of Revenues over Expenditures	61,211.11	0.00	
<b>CII, Large Landscape, Performance (OWOW)</b>			
Revenues	11,624.03	138,725.00	8.38%
Expenses	67,374.01	138,725.00	48.57%
Excess of Revenues over Expenditures	(55,749.98)	0.00	
<b>CA Sprinkler Adjustment Subscription System</b>			
Revenues	5,080.62	34,432.50	14.76%
Expenses	31,981.80	34,432.50	92.88%
Excess of Revenues over Expenditures	(26,901.18)	0.00	
<b>Rotating Nozzle</b>			
Revenues	694.57	39,000.00	1.78%
Expenses	16,257.39	39,000.00	41.69%
Excess of Revenues over Expenditures	(15,562.82)	0.00	
<b>WUE Projects</b>			
Revenues	9,232,261.98	22,766,205.12	40.55%
Expenses	9,751,447.29	22,766,205.12	42.83%
Excess of Revenues over Expenditures	(519,185.31)	0.00	
<b>WEROC</b>			
Revenues	206,353.90	283,614.00	72.76%
Expenses	129,353.92	278,613.00	46.43%
Excess of Revenues over Expenditures	76,999.98	5,001.00	
<b>RPOI Distributions</b>			
Revenues	0.00	4,823.00	0.00%
Expenses	0.00	4,823.00	0.00%
Excess of Revenues over Expenditures	0.00	0.00	



## Item No. 4

### **ACTION ITEM** January 20, 2016

**TO:** Board of Directors

**FROM:** **Administration & Finance Committee**  
(Directors Thomas, Osborne, Finnegan)

Robert Hunter, General Manager

Staff Contact: Maribeth Goldsby

**SUBJECT: RATIFY LARRY MCKENNEY'S PARTICIPATION ON THE ACWA LOCAL GOVERNMENT COMMITTEE**

#### **STAFF RECOMMENDATION**

---

Staff recommends the Board of Directors: Ratify Director Larry McKenney's appointment as Chair of the ACWA Local Government Committee, and direct staff to submit the Committee Consideration Form to ACWA.

#### **COMMITTEE RECOMMENDATION**

---

To be determined.

#### **SUMMARY**

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In September 2015, the Board directed staff to submit the ACWA Committee Consideration Forms as follows:

Linda Ackerman	Federal Affairs	Appointed
Susan Hinman	Local Government	Appointed
Larry McKenney	Legal Affairs (1st choice)	Appointed
	Business Development (2nd choice)	Appointed
Heather Baez	State Legislative	Not Appointed

The District was recently notified that although Directors Ackerman, Hinman and McKenney were appointed to their requested Committees, ACWA President Tiegs also appointed Director McKenney to the Local Government Committee and has asked that he Chair the Local Government Committee.

Because staff did not initially include Director McKenney on the Local Government Committee Consideration Form, it is necessary for the Board to ratify this appointment. Staff assumes that because MET agreed to pay for Directors Ackerman and McKenney's participation in the other Committees, they would agree to pay for his participation on the Local Government Committee.

Budgeted (Y/N):	Budgeted amount:	Core X	Choice ____
Action item amount:		Line item:	
Fiscal Impact (explain if unbudgeted): MET has agreed to pay for Dirs. Ackerman and McKenney’s participation.			

**D R A F T****MWDOC FY 2016-17  
Budget Preparation Schedule****December 2015**

- Notification to Member Agencies of start of budget process and solicitation of input.

**January 2016**

- MWDOC staff begins preparation of budget hours and costs on program and line-item basis.
- Review of five month actuals and fiscal year year-end projections.
- Review budget adjustments for current fiscal year.
- Preparation of DRAFT Conceptual Budget (review changes in budget for upcoming fiscal year).

**February 2016**

- Review budget issues with A&F Committee for feedback.
- Review budget issues with Member Agencies for feedback.
- Publish Official First Draft of Budget on or before March 1.

**March 2016**

- Publish Official First Draft of Budget on or before March 1.
- Review Full Draft Budget with A&F Committee.
- Formally request comments from all Member Agencies.
- Member Agencies' preliminary indication of participation in CHOICE Services.
- DRAFT information completed on prior year WUE benefits to Member Agencies to serve as basis of charging agencies for the upcoming year for WUE activities.
- Member Agencies confirm participation in CHOICE Services by March 15 (staff suggestion is to move this date to the end of April, allowing time for the Elected Officials meeting).

**April 2016**

- FINAL information completed on prior year WUE benefits to Member Agencies to serve as basis of charging agencies for the upcoming year for WUE activities.
- Member Agencies' submit Formal Comments about the Budget before April 15.
- Review Final Draft Budget and MWDOC's rates with Member Agencies.
- Conduct meeting with Elected Officials from Member Agencies to discuss budget and other topics before the end of April.
- Member Agencies confirm CHOICE Participation.

**May 2016**

- Final Draft Budget and Rates presented to A&F Committee.
- Member Agencies' Formal Comments presented to A&F Committee.
- Board approval of FY2016-17 Budget and Rates.
- If needed, the budget and rates can carry-over into June.



**INFORMATION ITEM**

January 13, 2016

**TO:**           **Administration & Finance Committee**  
(Directors Thomas, Osborne, Finnegan)

**FROM:**       **Robert Hunter, General Manager**

**Staff Contact:**     Cathy Harris, Administrative Services Manager  
                          Hilary Chumpitazi, Accounting Manager

**SUBJECT:   CALPERS ANNUAL VALUATION REPORT AS OF JUNE 30, 2014**

**STAFF RECOMMENDATION**

---

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

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**DETAILED REPORT**

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Attached for your information is the CalPERS Annual Valuation Report as of June 30, 2014. The report includes the following information:

- MWDOC's total PERS obligation (for Classic PERS Members) effective July 1, 2016 will be 15.88% (last year's rate was 15.512%)
- The District's contribution amount less the employee contribution will be 10.88% for Fiscal Year 2016-2017.
- The District's contribution amount (for PEPRA Members) effective July 1, 2016, will be 6.555% (last year's rate was 6.237%)
- MWDOC's current plan obligation as of June 30, 2014 is \$8,295,329 and is 86.2% funded.

Please note that Section 2 of the valuation is not currently available on the CalPERS website. Staff will forward that information once it becomes available.

This information is being provided for receive and file.

<b>Budgeted (Y/N): Y</b>	Budgeted amount: NA	Core Y__	Choice __
<b>Action item amount: NA</b>	Line item: NA		
<b>Fiscal Impact (explain if unbudgeted):</b>			



California Public Employees' Retirement System  
Actuarial Office  
P.O. Box 942709  
Sacramento, CA 94229-2709  
TTY: (916) 795-3240  
(888) 225-7377 phone – (916) 795-2744 fax  
[www.calpers.ca.gov](http://www.calpers.ca.gov)

**November 2015**

**MISCELLANEOUS PLAN OF THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY  
(CalPERS ID: 6497938438)  
Annual Valuation Report as of June 30, 2014**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2014 actuarial valuation report of your pension plan.

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

- Section 1 contains specific information for your plan, including the development of your pooled employer contributions and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to your plan, as of June 30, 2014.

Section 2 can be found on the CalPERS website at ([www.calpers.ca.gov](http://www.calpers.ca.gov)). From the home page go to "*Forms & Publications*" and select "*View All*". In the search box enter "*Risk Pool Report*" and from the results list download the Miscellaneous or Safety Risk Pool Actuarial Valuation Report as appropriate.

Your 2014 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary, whose signature appears in the Actuarial Certification Section on page 1, is available to discuss your report with you after November 30, 2015.

**Future Contribution Rates**

Fiscal Year	Employer Normal Cost Rate	+	Employer Payment of Unfunded Liability
2016-17	8.880%		\$64,364
2017-18 (projected)	8.9%		\$83,284

The exhibit above displays the Minimum Employer Contributions, before any cost sharing, for 2016-17 along with estimates of the contributions for 2017-18. The estimated contributions for 2017-18 are based on a projection of the most recent information we have available, including an estimated 2.4 percent investment return for fiscal 2014-15.

A projection of employer contributions beyond 2017-18 can be found in the Risk Analysis Section of this report, "*Analysis of Future Investment Return Scenarios*", under a variety of investment return scenarios. Please disregard any projections provided to you in the past. Member contributions, other than cost sharing (whether paid by the employer or the employee), are in addition to the above amounts. The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees.

The estimate for 2017-18 also assumes that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.) This is a very important assumption because these gains and losses do occur and can have a significant effect on your contributions. Even for the largest plans or pools, such gains and losses can impact the employer's contribution rate by one or two percent of payroll or even more in some less common circumstances. These gains and losses cannot be predicted in advance so the projected employer contributions are estimates. Your actual employer contributions for 2017-18 will be provided in next year's valuation report.

### **Changes since the Prior Year's Valuation**

This actuarial valuation includes Board adopted changes to the demographic assumptions based on the most recent experience report. The most significant of these is the improvement in post-retirement mortality acknowledging the greater life expectancies we are seeing in our membership and expected continued improvements. The actuarial assumptions and methods used in CalPERS public agency valuations are approved by the Board of Administration upon the recommendation of the Chief Actuary. The individual plan actuary whose signature appears in the actuarial certification in the accompanying report does not set plan specific actuarial assumptions.

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

Effective with the 2014 actuarial valuation Governmental Accounting Standards Board Statement No. 27 financial reporting information is no longer provided in CalPERS annual actuarial valuation reports. GASB 27 has been replaced with GASB 68 for financial statement reporting purposes. CalPERS is providing separate accounting valuation reports on a fee for service basis for our public agency employers. More details on GASB 68 and instructions for ordering your GASB 68 report are available on our website.

Further descriptions of general changes are included in the *"Highlights and Executive Summary"* section and in Appendix A, *"Statement of Actuarial Data, Methods and Assumptions"* of your Section 2 report. We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their result, we ask that, you wait until after November 30 to contact us with actuarial related questions.

### **Potential Changes to Future Year Valuations**

One of CalPERS strategic goals is to improve the long-term pension benefit sustainability of the system through an integrated view of pension assets and liabilities. The Board of Administration has been engaging in discussions on the funding risks faced by the system and possible risk mitigation strategies to better protect our members. Recent Board actions on a new asset allocation, new actuarial assumptions and new smoothing and amortization policies have already lowered risk. However, future contribution rate volatility is expected as CalPERS pension plans continue to mature.

At its November 2015 Board of Administration meeting CalPERS adopted a Funding Risk Mitigation Policy that addresses these risks in a balanced manner. The policy will result in a gradual shifting of the asset allocation in a way that will lower investment risk. This shift means accepting lower future expected returns and a lower actuarial discount rate. In time, the policy is expected to lower the level of risk borne by employers and, ultimately, by members. Additional information on the CalPERS new Funding Risk Mitigation policy can be found on our website.

If you have other questions, please call our customer contact center at (888) CalPERS or (888-**225-7377**).

Sincerely,

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

ALAN MILLIGAN  
Chief Actuary





# **ACTUARIAL VALUATION**

**as of June 30, 2014**

**for the  
MISCELLANEOUS PLAN  
of the  
MUNICIPAL WATER DISTRICT OF ORANGE  
COUNTY  
(CalPERS ID: 6497938438)**

**REQUIRED CONTRIBUTIONS  
FOR FISCAL YEAR**

**July 1, 2016 - June 30, 2017**

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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: 4054)**

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## ACTUARIAL CERTIFICATION

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2014 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2014 provided by employers participating in the Miscellaneous Risk Pool to which your plan belongs and benefit provisions under the CalPERS contracts for those agencies.

As set forth in Section 2 of this report, the Pool Actuary has certified that, in their opinion, the valuation of the Risk Pool containing your MISCELLANEOUS PLAN 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 your plan, it is my opinion as your Plan Actuary that the Side Fund and other Unfunded Accrued Liability bases as of June 30, 2014 and employer contribution as of July 1, 2016, have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary for CalPERS, who is a member of both the American Academy of Actuaries and Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



KERRY J. WORGAN, MAAA, FSA, FCIA  
Senior Pension Actuary, CalPERS  
Plan Actuary

## **HIGHLIGHTS AND EXECUTIVE SUMMARY**

- **INTRODUCTION**
- **PURPOSE OF SECTION 1**
- **REQUIRED EMPLOYER CONTRIBUTION**
- **PLAN'S FUNDED STATUS**
- **PROJECTED CONTRIBUTIONS**

## Introduction

This report presents the results of the June 30, 2014 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 Fiscal Year 2016-17 required employer contributions.

This actuarial valuation includes Board adopted changes to the demographic assumptions based on the most recent experience study report. The most significant of these is the improvement in post-retirement mortality acknowledging the greater life expectancies we are seeing in our membership and expected continued improvements. The actuarial assumptions and methods used in CalPERS public agency valuations are approved by the Board of Administration upon the recommendation of the Chief Actuary. The individual plan actuary whose signature appears in the actuarial certification in this report does not set plan specific actuarial assumptions.

Effective with the 2014 actuarial valuation, Governmental Accounting Standards Board Statement No. 27 financial reporting information is no longer provided in CalPERS annual actuarial valuation reports. GASB 27 has been replaced with GASB 68 for financial statement reporting purposes. CalPERS is providing separate accounting valuation reports on a fee for service basis for our public agency employers. More details on GASB 68 and instructions for ordering your GASB 68 report are available on our website.

## Purpose of Section 1

This section 1 report for the MISCELLANEOUS PLAN of the MUNICIPAL WATER DISTRICT OF ORANGE COUNTY of the California Public Employees' Retirement System (CalPERS) was prepared by the Plan Actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2014;
- Determine the required employer contribution for this plan for the Fiscal Year July 1, 2016 through June 30, 2017; and
- Provide actuarial information as of June 30, 2014 to the CalPERS Board of Administration 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 Number 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available from CalPERS and details for ordering are available on our website.

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

### California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 8.

Additionally, this report includes the following "Enhanced Risk Disclosures" also recommended by the CAAP in the Model Disclosure Elements document:

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1 percent plus or minus change in the discount rate.

## Required Employer Contribution

	Fiscal Year 2015-16 <sup>1</sup>	Fiscal Year 2016-17
<b>Actuarially Determined Employer Contributions:</b>		
Employer Contributions (in Projected Dollars)		
Plan's Employer Normal Cost	\$ 221,193	\$ 220,693
Plan's Payment on Amortization Bases	52,033	64,364 <sup>2</sup>
Total Employer Contribution	\$ 273,226	\$ 285,057
Projected Payroll for the Contribution fiscal year	\$ 2,598,601	\$ 2,485,217
<b>Required Employer Contributions (Percentage of Payroll)</b>		
Pool's Base Employer Normal Cost	8.003%	8.377%
Surcharge for Class 1 Benefits <sup>3</sup>		
a) FAC 1	0.509%	0.503%
Phase out of Normal Cost Difference <sup>4</sup>	0.000%	0.000%
Pools Expected Employee Contribution for Formula	6.891%	6.886%
Plan's Total Normal Cost	15.403%	15.766%
Plan's Employee Contribution Rate	6.891%	6.886%
Employer Normal Cost Rate	8.512%	8.880%

### Required Employer Contribution for Fiscal Year 2016-17

<b>Employer Normal Cost Rate<sup>5</sup></b>	<b>8.880%</b>
<b>Plus Monthly Employer Dollar UAL Payment<sup>6</sup></b>	<b>\$ 5,363.69</b>
<b>Annual Lump Sum Prepayment Option</b>	<b>\$ 62,078</b>

*For Fiscal Year 2016-17 the total minimum required employer contribution is the **sum** of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll) **plus** the Employer Unfunded Accrued Liability (UAL) Contribution Amount (in dollars). Whereas in prior years it was possible to prepay total employer contributions for the fiscal year, beginning with Fiscal Year 2015-16 and beyond, only the UAL portion of the employer contribution can be prepaid. Late payments will accrue interest at an annual rate of 10 percent.*

Plan Normal Cost contributions will be made as part of the payroll reporting process. As a percentage of projected payroll your UAL contribution is 2.590 percent for a total Employer Contribution Rate of 11.470 percent.

<sup>1</sup> The results shown for Fiscal Year 2015-16 reflect the prior year valuation and do not reflect any lump sum payment, side fund payoff or rate adjustment made after annual valuation report is completed.

<sup>2</sup> The Plan's Payment on Amortization Bases reflects the sum of all UAL amortization bases including the Plan's Side Fund (where applicable).

<sup>3</sup> Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

<sup>4</sup> Risk pooling was implemented for most plans as of June 30, 2003. The normal cost difference was scheduled to be phased out over a five year period. The phase out of normal cost difference is 100 percent for the first year of pooling, and is incrementally reduced by 20 percent of the original normal cost difference for each subsequent year.

<sup>5</sup> The minimum employer contribution under PEPPA is the greater of the required employer contribution or the total employer normal cost.

<sup>6</sup> The Plan's Payment on Amortization Bases Contribution amount for Fiscal Year 2016-17 will be billed as a level dollar amount monthly over the course of the year. Lump sum payments may be made through myCalPERS. If you would like to prepay the entire Annual Payment toward your Plan's Unfunded Accrued Liability, you can submit the Annual Lump Sum Prepayment amount against the July Unfunded Accrued Liability receivable. The Annual Lump Sum Prepayment must be received in full on or before July 31. If there is contractual cost sharing or other change, this amount will change. § 20572 of the Public Employees' Retirement Law assesses interest at an annual rate of 10 percent if a contracting agency fails to remit the required contributions when due.



## Plan's Funded Status

	June 30, 2013	June 30, 2014
1. Present Value of Projected Benefits (PVB)	\$ 10,043,959	\$ 11,128,474
2. Entry Age Normal Accrued Liability	7,189,485	8,295,329
3. Plan's Market Value of Assets (MVA)	5,842,865	7,150,851
4. Unfunded Liability [(2) - (3)]	1,346,620	1,144,478
5. Funded Ratio [(3) / (2)]	81.3%	86.2%

## Projected Employer Contributions

The estimated rate for 2017-18 is based on a projection of the most recent information we have available, including an estimated 2.4 percent investment return for Fiscal Year 2014-15.

The table below shows projected employer contribution rates (before cost sharing) for the next five fiscal years, **assuming CalPERS earns 2.4% for Fiscal Year 2014-15 and 7.50 percent every fiscal year thereafter**, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the projection period.

	Required Contribution	Projected Future Employer Contribution Rates				
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
<b>Normal Cost %</b>	8.880%	8.9%	8.9%	8.9%	8.9%	8.9%
<b>UAL \$</b>	\$64,364	\$83,284	\$103,281	\$124,403	\$132,965	\$143,589

## **ASSETS AND LIABILITIES**

- **DEVELOPMENT OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE**
- **DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA**
- **SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES**
- **ALTERNATIVE AMORTIZATION SCHEDULES**
- **FUNDING HISTORY**

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

It is the policy of the 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 fairly and that maintains benefit security for the members of the System while minimizing substantial variations in employer contributions. For purposes of allocating the pool's experience gains/losses and impact of assumption changes to all the individual plans within the pool, an individual plan's share is allocated as follows:

1.	Plan's Accrued Liability	\$	8,295,329
2.	Projected UAL balance at 6/30/14		1,390,375
3.	Pool's Accrued Liability	\$	13,137,020,035
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/14		2,787,798,208
5.	Pool's 2013/14 Investment & Asset (Gain)/Loss		(915,890,797)
6.	Pool's 2013/14 Other (Gain)/Loss		1,024,915
7.	Plan's Share of Pool's Asset (Gain)/Loss $[(1)-(2)]/[(3)-(4)] * (5)$		(611,078)
8.	Plan's Share of Pool's Other (Gain)/Loss $[(1)]/[(3)] * (6)$		647
9.	Plan's New (Gain)/Loss as of 6/30/2014 $[(7)+(8)]$	\$	(610,431)
10.	Increase in Pool's Accrued Liability due to Change in Assumptions		577,299,719
11.	Plan's Share of Pool's Change in Assumptions $[(1)]/[(3)] * (10)$	\$	364,534

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

1.	Plan's Accrued Liability	\$	8,295,329
2.	Plan's UAL	\$	1,144,478
3.	Plan's Share of Pool's MVA $(1)-(2)$	\$	<b>7,150,851</b>

## Schedule of Plan's Side Fund and Other Amortization Bases

There is a two-year lag between the Valuation Date and the Contribution Fiscal Year.

- The assets, liabilities and funded status of the plan are measured as of the valuation date; June 30, 2014.
- The employer contribution determined by the valuation is for the fiscal year beginning two years after the valuation date; Fiscal Year 2016-17.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and due to the need to provide public agencies with their 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 Payment on the UAL for the fiscal year and adjusting for interest.

Reason for Base	Date Established	Amortization Period	Balance 6/30/14	Payment 2014-15	Balance 6/30/15	Payment 2015-16	Amounts for Fiscal 2016-17	
							Balance 6/30/16	Scheduled Payment for 2016-17
SHARE OF PRE-2013 POOL UAL	06/30/13	21	\$606,823	\$84,717	\$564,498	\$40,186	\$565,170	\$41,392
ASSET (GAIN)/LOSS	06/30/13	29	\$791,158	\$0	\$850,495	\$11,962	\$901,880	\$24,642
NON-ASSET (GAIN)/LOSS	06/30/13	29	\$(7,606)	\$0	\$(8,176)	\$(115)	\$(8,670)	\$(237)
ASSET (GAIN)/LOSS	06/30/14	30	\$(611,078)	\$0	\$(656,909)	\$0	\$(706,177)	\$(9,932)
NON-ASSET (GAIN)/LOSS	06/30/14	30	\$647	\$0	\$696	\$0	\$748	\$11
ASSUMPTION CHANGE	06/30/14	20	\$364,534	\$(11,185)	\$403,471	\$(11,520)	\$445,676	\$8,489
<b>TOTAL</b>			<b>\$1,144,478</b>	<b>\$73,532</b>	<b>\$1,154,075</b>	<b>\$40,513</b>	<b>\$1,198,627</b>	<b>\$64,365</b>

Your plan's allocated share of the risk pool's pre-2013 UAL is based on your plan's accrued liability and is amortized over the average amortization period of the combined existing amortization bases prior to June 30, 2013. The payment for Fiscal Year 2014-15 was allocated based on your plan's payroll.

The (gain)/loss bases are your plan's allocated share of the risk pool's gain/loss for the fiscal year as disclosed on the previous page. These (gain)/loss bases will be amortized according to Board policy over 30 years with a 5-year ramp-up.

## Alternate Amortization Schedules

The amortization schedule shown on the previous page shows the minimum contributions required according to CalPERS amortization policy. There has been considerable interest from many agencies in paying off these unfunded accrued liabilities sooner and the possible savings in doing so. As a result, we have provided alternate amortization schedules to help analyze your current amortization schedule and illustrate the advantages of accelerating unfunded liability payments towards your plan's unfunded liability of \$1,198,627 as of June 30, 2016, which will require total payments of \$2,477,678.

Shown below are the level rate payments required to amortize your plan's unfunded liability assuming a fresh start over the various periods noted. Note that the payments under each scenario would increase by 3 percent for each year into the future.

Period	2016-17 Payment	Level Rate		
		Total Payments	Total Interest	Savings
<b>20</b>	\$90,503	\$2,431,843	\$1,233,217	\$45,835
<b>15</b>	\$109,877	\$2,043,602	\$844,976	\$434,076

Current CalPERS Board policy calls for lump sum contributions in excess of the required employer contribution shall first be used to eliminate the side fund, if applicable, and then the plan's share of the pool's unfunded accrued liability.

Please contact your plan actuary before making such a payment to ensure that the payment is applied correctly.

## Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/2011	\$ 5,636,322	\$ 4,612,177	\$ 1,024,145	81.8%	\$ 2,665,451
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

## **RISK ANALYSIS**

- **VOLATILITY RATIOS**
- **ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS**
- **ANALYSIS OF DISCOUNT RATE SENSITIVITY**
- **HYPOTHETICAL TERMINATION LIABILITY**

## Volatility Ratios

The actuarial calculations supplied in this communication are based on a number of assumptions about very long-term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and 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 the employer's rates from one year to the next. Therefore, the rates will inevitably fluctuate, especially due to the ups and downs of investment returns.

### Asset Volatility Ratio (AVR)

Plans that have higher asset to payroll ratios produce more volatile employer rates 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. Below we have shown your asset volatility ratio, a measure of the plan's current rate volatility. 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 (LVR)

Plans that have higher liability to payroll ratios produce more volatile employer rates due to investment return and changes in liability. For example, a plan with a liability to payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability to payroll ratio of 4. The liability volatility ratio is also included in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility and the asset volatility ratio, described above, will tend to move closer to this ratio as the plan matures.

Rate Volatility	As of June 30, 2014	
1. Market Value of Assets	\$	7,150,851
2. Payroll		2,274,325
3. Asset Volatility Ratio (AVR = 1. / 2.)		3.1
4. Accrued Liability	\$	8,295,329
5. Liability Volatility Ratio (LVR = 4. / 2.)		3.6

## Analysis of Future Investment Return Scenarios

The investment return for Fiscal Year 2014-15 was announced July 14, 2015. The investment return in Fiscal Year 2014-15 is 2.4 percent before administrative expenses. For purposes of projecting future employer rates, we are assuming a 2.4 percent investment return for Fiscal Year 2014-15.

The investment return realized during a fiscal year first affects the contribution for the fiscal year two years later. Specifically, the investment return for 2014-15 will first be reflected in the June 30, 2015 actuarial valuation that will be used to set the 2017-18 employer contribution rates, the 2015-16 investment return will first be reflected in the June 30, 2016 actuarial valuation that will be used to set the 2018-19 employer contribution rates and so forth.

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2015-16, 2016-17 and 2017-18 on the 2018-19, 2019-20 and 2020-21 employer contributions. Once again, the projected contributions assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is what one would expect if the markets were to give us a 5<sup>th</sup> percentile return from July 1, 2015 through June 30, 2018. The 5<sup>th</sup> percentile return corresponds to a -3.8 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.
- The second scenario is what one would expect if the markets were to give us a 25<sup>th</sup> percentile return from July 1, 2015 through June 30, 2018. The 25<sup>th</sup> percentile return corresponds to a 2.8 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.
- The third scenario assumed the return for 2015-16, 2016-17, 2017-18 would be our assumed 7.5 percent investment return which represents about a 49<sup>th</sup> percentile event.
- The fourth scenario is what one would expect if the markets were to give us a 75<sup>th</sup> percentile return from July 1, 2015 through June 30, 2018. The 75<sup>th</sup> percentile return corresponds to a 12.0 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.
- Finally, the last scenario is what one would expect if the markets were to give us a 95<sup>th</sup> percentile return from July 1, 2015 through June 30, 2018. The 95<sup>th</sup> percentile return corresponds to a 18.9 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.

The table below shows the estimated projected contributions and the estimated increases for your plan under the five different scenarios.

2015-18 Investment Return Scenario	Estimated Employer UAL Contribution			Estimated Total Change in Employer UAL Contribution between 2017-18 and 2020-21
	2018-19	2019-20	2020-21	
(3.8%) (5th percentile)	\$116,630	\$164,690	\$214,073	\$130,789
2.8% (25th percentile)	\$108,834	\$141,527	\$168,184	\$84,900
7.5%	\$103,281	\$124,403	\$132,965	\$49,681
12.0%(75th percentile)	\$97,964	\$107,518	\$97,187	\$13,903
18.9%(95th percentile)	\$89,811	\$0	\$0	\$(83,284)

In addition to the UAL Contribution amounts shown above the estimated employer normal cost of 8.9 percent of payroll will also be payable in each of the fiscal years shown above. The projected plan normal cost is expected to remain relatively stable over this time period.



## Analysis of Discount Rate Sensitivity

The following analysis looks at the 2016-17 total normal cost rates and liabilities under two different discount rate scenarios. Shown below are the total normal cost rates assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis gives an indication of the potential plan impacts if the PERF were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This type of analysis gives the reader a sense of the long-term risk to the contribution rates.

<b>Sensitivity Analysis</b>			
<b>As of June 30, 2014</b>	<b>6.50% Discount Rate (-1%)</b>	<b>7.50% Discount Rate (assumed rate)</b>	<b>8.50% Discount Rate (+1%)</b>
Plan's Total Normal Cost	19.5%	15.8%	12.9%
Accrued Liability	\$9,511,378	\$8,295,329	\$7,297,904
Unfunded Accrued Liability	\$2,360,527	\$1,144,478	\$147,053

## Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of your plan if you had terminated your contract with CalPERS as of June 30, 2014. Your plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For this hypothetical termination liability calculation both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are included.

For the Terminated Agency Pool the CalPERS Board adopted a more conservative investment policy and asset allocation strategy. Since the Terminated Agency Pool has limited funding sources due to the fact that no future employer contributions will be made, expected benefit payments are secured by risk-free assets. With this change, CalPERS increased benefit security for members while limiting its funding risk. However, this asset allocation has a lower expected rate of return than the PERF. Consequently, 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 bond yields observed during the period from July 1, 2013 through June 30, 2015.

<b>Valuation Date</b>	<b>Market Value of Assets (MVA)</b>	<b>Hypothetical Termination Liability<sup>1,2</sup> @ 2.00%</b>	<b>Unfunded Termination Liability @ 2.00%</b>	<b>Hypothetical Termination Liability<sup>1,2</sup> @ 3.75%</b>	<b>Unfunded Termination Liability @ 3.75%</b>
06/30/14	\$ 7,150,851	\$ 15,835,617	\$ 8,684,766	\$ 11,857,952	\$ 4,707,101

<sup>1</sup> The hypothetical liabilities calculated above include a 7 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in Appendix A.

<sup>2</sup> The current discount rate assumption 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 3.00% on June 30, 2014 and 2.90% on June 30, 2015.

In order to terminate your plan, you must first contact our Retirement Services Contract Unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow your plan actuary to give you a preliminary termination valuation with a more up-to-date estimate of your plan liabilities. CalPERS strongly advises you to consult with your plan actuary before beginning this process.

## Participant Data

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

	<b>June 30, 2013</b>	<b>June 30, 2014</b>
Projected Payroll for Contribution Purposes	\$ 2,598,601	\$ 2,485,217
Number of Members		
Active	27	24
Transferred	9	9
Separated	11	13
Retired	7	8

## List of Class 1 Benefit Provisions

- One Year Final Compensation

## **PLAN'S MAJOR BENEFIT OPTIONS**

## SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE MISCELLANEOUS PLAN OF THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

### Plan's Major Benefit Options

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

Benefit Provision	Contract package		
	Active Misc	Receiving Misc	
Benefit Formula	2.0% @ 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 2W	Yes		
1959 Survivor Benefit Level	level 4		
Special	No		
Alternate (firefighters)	No	No	
Post-Retirement Death Benefits			
Lump Sum	\$500	\$500	
Survivor Allowance (PRSA)	No	No	
COLA	2%	2%	

## Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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



California Public Employees' Retirement System  
Actuarial Office  
P.O. Box 942709  
Sacramento, CA 94229-2709  
TTY: (916) 795-3240  
(888) 225-7377 phone – (916) 795-2744 fax  
[www.calpers.ca.gov](http://www.calpers.ca.gov)

**November 2015**

**PEPRA MISCELLANEOUS PLAN OF THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY**  
**(CalPERS ID: 6497938438)**  
**Annual Valuation Report as of June 30, 2014**

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2014 actuarial valuation report of your pension plan.

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

- Section 1 contains specific information for your plan, including the development of your pooled employer contributions and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to your plan, as of June 30, 2014.

Section 2 can be found on the CalPERS website at ([www.calpers.ca.gov](http://www.calpers.ca.gov)). From the home page go to "*Forms & Publications*" and select "*View All*". In the search box enter "*Risk Pool Report*" and from the results list download the Miscellaneous or Safety Risk Pool Actuarial Valuation Report as appropriate.

Your 2014 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary, whose signature appears in the Actuarial Certification Section on page 1, is available to discuss your report with you after November 30, 2015.

**Future Contribution Rates**

Fiscal Year	Employer Normal Cost Rate	+	Employer Payment of Unfunded Liability
2016-17	6.555%		\$149
2017-18 (projected)	6.6%		\$182

The exhibit above displays the Minimum Employer Contributions, before any cost sharing, for 2016-17 along with estimates of the contributions for 2017-18. The estimated contributions for 2017-18 are based on a projection of the most recent information we have available, including an estimated 2.4 percent investment return for fiscal 2014-15.

A projection of employer contributions beyond 2017-18 can be found in the Risk Analysis Section of this report, "*Analysis of Future Investment Return Scenarios*", under a variety of investment return scenarios. Please disregard any projections provided to you in the past. Member contributions, other than cost sharing (whether paid by the employer or the employee), are in addition to the above amounts. The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees. Page 61 of 114

The estimate for 2017-18 also assumes that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.) This is a very important assumption because these gains and losses do occur and can have a significant effect on your contributions. Even for the largest plans or pools, such gains and losses can impact the employer's contribution rate by one or two percent of payroll or even more in some less common circumstances. These gains and losses cannot be predicted in advance so the projected employer contributions are estimates. Your actual employer contributions for 2017-18 will be provided in next year's valuation report.

### **Changes since the Prior Year's Valuation**

This actuarial valuation includes Board adopted changes to the demographic assumptions based on the most recent experience report. The most significant of these is the improvement in post-retirement mortality acknowledging the greater life expectancies we are seeing in our membership and expected continued improvements. The actuarial assumptions and methods used in CalPERS public agency valuations are approved by the Board of Administration upon the recommendation of the Chief Actuary. The individual plan actuary whose signature appears in the actuarial certification in the accompanying report does not set plan specific actuarial assumptions.

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

Effective with the 2014 actuarial valuation Governmental Accounting Standards Board Statement No. 27 financial reporting information is no longer provided in CalPERS annual actuarial valuation reports. GASB 27 has been replaced with GASB 68 for financial statement reporting purposes. CalPERS is providing separate accounting valuation reports on a fee for service basis for our public agency employers. More details on GASB 68 and instructions for ordering your GASB 68 report are available on our website.

Further descriptions of general changes are included in the *"Highlights and Executive Summary"* section and in Appendix A, *"Statement of Actuarial Data, Methods and Assumptions"* of your Section 2 report. We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their result, we ask that, you wait until after November 30 to contact us with actuarial related questions.

### **Potential Changes to Future Year Valuations**

One of CalPERS strategic goals is to improve the long-term pension benefit sustainability of the system through an integrated view of pension assets and liabilities. The Board of Administration has been engaging in discussions on the funding risks faced by the system and possible risk mitigation strategies to better protect our members. Recent Board actions on a new asset allocation, new actuarial assumptions and new smoothing and amortization policies have already lowered risk. However, future contribution rate volatility is expected as CalPERS pension plans continue to mature.



At its November 2015 Board of Administration meeting CalPERS adopted a Funding Risk Mitigation Policy that addresses these risks in a balanced manner. The policy will result in a gradual shifting of the asset allocation in a way that will lower investment risk. This shift means accepting lower future expected returns and a lower actuarial discount rate. In time, the policy is expected to lower the level of risk borne by employers and, ultimately, by members. Additional information on the CalPERS new Funding Risk Mitigation policy can be found on our website.

If you have other questions, please call our customer contact center at (888) CalPERS or (888-**225-7377**).

Sincerely,

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

ALAN MILLIGAN  
Chief Actuary



# **ACTUARIAL VALUATION**

**as of June 30, 2014**

**for the  
PEPRA MISCELLANEOUS PLAN  
of the  
MUNICIPAL WATER DISTRICT OF ORANGE  
COUNTY  
(CalPERS ID: 6497938438)**

**REQUIRED CONTRIBUTIONS  
FOR FISCAL YEAR**

**July 1, 2016 - June 30, 2017**

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## **SECTION 1 – PLAN SPECIFIC INFORMATION**

## **SECTION 2 – RISK POOL ACTUARIAL VALUATION INFORMATION**

# Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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**Plan Specific Information  
for the  
PEPRA MISCELLANEOUS PLAN  
of the  
MUNICIPAL WATER DISTRICT OF  
ORANGE COUNTY**

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

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## ACTUARIAL CERTIFICATION

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2014 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2014 provided by employers participating in the Miscellaneous Risk Pool to which your plan belongs and benefit provisions under the CalPERS contracts for those agencies.

As set forth in Section 2 of this report, the Pool Actuary has certified that, in their opinion, the valuation of the Risk Pool containing your PEPRA MISCELLANEOUS PLAN 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 your plan, it is my opinion as your Plan Actuary that the Side Fund and other Unfunded Accrued Liability bases as of June 30, 2014 and employer contribution as of July 1, 2016, have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary for CalPERS, who is a member of both the American Academy of Actuaries and Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



KERRY J. WORGAN, MAAA, FSA, FCIA  
Senior Pension Actuary, CalPERS  
Plan Actuary

## **HIGHLIGHTS AND EXECUTIVE SUMMARY**

- **INTRODUCTION**
- **PURPOSE OF SECTION 1**
- **REQUIRED EMPLOYER CONTRIBUTION**
- **PLAN'S FUNDED STATUS**
- **PROJECTED CONTRIBUTIONS**

## Introduction

This report presents the results of the June 30, 2014 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 Fiscal Year 2016-17 required employer contributions.

This actuarial valuation includes Board adopted changes to the demographic assumptions based on the most recent experience study report. The most significant of these is the improvement in post-retirement mortality acknowledging the greater life expectancies we are seeing in our membership and expected continued improvements. The actuarial assumptions and methods used in CalPERS public agency valuations are approved by the Board of Administration upon the recommendation of the Chief Actuary. The individual plan actuary whose signature appears in the actuarial certification in this report does not set plan specific actuarial assumptions.

Effective with the 2014 actuarial valuation, Governmental Accounting Standards Board Statement No. 27 financial reporting information is no longer provided in CalPERS annual actuarial valuation reports. GASB 27 has been replaced with GASB 68 for financial statement reporting purposes. CalPERS is providing separate accounting valuation reports on a fee for service basis for our public agency employers. More details on GASB 68 and instructions for ordering your GASB 68 report are available on our website.

## Purpose of Section 1

This section 1 report for the PEPRA MISCELLANEOUS PLAN of the MUNICIPAL WATER DISTRICT OF ORANGE COUNTY of the California Public Employees' Retirement System (CalPERS) was prepared by the Plan Actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2014;
- Determine the required employer contribution for this plan for the Fiscal Year July 1, 2016 through June 30, 2017; and
- Provide actuarial information as of June 30, 2014 to the CalPERS Board of Administration 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 Number 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available from CalPERS and details for ordering are available on our website.

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

### California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 8.

Additionally, this report includes the following "Enhanced Risk Disclosures" also recommended by the CAAP in the Model Disclosure Elements document:

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1 percent plus or minus change in the discount rate.



## Required Employer Contribution

	Fiscal Year 2015-16 <sup>1</sup>	Fiscal Year 2016-17
<b>Actuarially Determined Employer Contributions:</b>		
Employer Contributions (in Projected Dollars)		
Plan's Employer Normal Cost	\$ 0	\$ 15,717
Plan's Payment on Amortization Bases	0	149 <sup>2</sup>
Total Employer Contribution	\$ 0	\$ 15,866
Projected Payroll for the Contribution fiscal year	\$ 0	\$ 239,779
<b>Required Employer Contributions (Percentage of Payroll)</b>		
Pool's Base Employer Normal Cost	0.000%	6.492%
Surcharge for Class 1 Benefits <sup>3</sup>		
None	0.000%	0.000%
Phase out of Normal Cost Difference <sup>4</sup>	0.000%	0.000%
Pools Expected Employee Contribution for Formula	0.000%	6.313%
Plan's Total Normal Cost	0.000%	12.805%
Plan's Employee Contribution Rate	0.000%	6.250%
Employer Normal Cost Rate	0.000%	6.555%

### Required Employer Contribution for Fiscal Year 2016-17

<b>Employer Normal Cost Rate<sup>5</sup></b>	<b>6.555%</b>
<b>Plus Monthly Employer Dollar UAL Payment<sup>6</sup></b>	<b>\$ 12.43</b>
<b>Annual Lump Sum Prepayment Option</b>	<b>\$ 144</b>

For Fiscal Year 2016-17 the total minimum required employer contribution is the **sum** of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll) **plus** the Employer Unfunded Accrued Liability (UAL) Contribution Amount (in dollars). Whereas in prior years it was possible to prepay total employer contributions for the fiscal year, beginning with Fiscal Year 2015-16 and beyond, only the UAL portion of the employer contribution can be prepaid. Late payments will accrue interest at an annual rate of 10 percent.

Plan Normal Cost contributions will be made as part of the payroll reporting process. As a percentage of projected payroll your UAL contribution is 0.062 percent for a total Employer Contribution Rate of 6.617 percent.

<sup>1</sup> The results shown for Fiscal Year 2015-16 reflect the prior year valuation and do not reflect any lump sum payment, side fund payoff or rate adjustment made after annual valuation report is completed.

<sup>2</sup> The Plan's Payment on Amortization Bases reflects the sum of all UAL amortization bases including the Plan's Side Fund (where applicable).

<sup>3</sup> Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

<sup>4</sup> Risk pooling was implemented for most plans as of June 30, 2003. The normal cost difference was scheduled to be phased out over a five year period. The phase out of normal cost difference is 100 percent for the first year of pooling, and is incrementally reduced by 20 percent of the original normal cost difference for each subsequent year.

<sup>5</sup> The minimum employer contribution under PEPRA is the greater of the required employer contribution or the total employer normal cost.

<sup>6</sup> The Plan's Payment on Amortization Bases Contribution amount for Fiscal Year 2016-17 will be billed as a level dollar amount monthly over the course of the year. Lump sum payments may be made through myCalPERS. If you would like to prepay the entire Annual Payment toward your Plan's Unfunded Accrued Liability, you can submit the Annual Lump Sum Prepayment amount against the July Unfunded Accrued Liability receivable. The Annual Lump Sum Prepayment must be received in full on or before July 31. If there is contractual cost sharing or other change, this amount will change. § 20572 of the Public Employees' Retirement Law assesses interest at an annual rate of 10 percent if a contracting agency fails to remit the required contributions when due.

## Plan's Funded Status

	June 30, 2013	June 30, 2014
1. Present Value of Projected Benefits (PVB)	\$ 0	\$ 300,775
2. Entry Age Normal Accrued Liability	0	32,950
3. Plan's Market Value of Assets (MVA)	0	34,415
4. Unfunded Liability [(2) - (3)]	0	(1,465)
5. Funded Ratio [(3) / (2)]	0.0%	104.5%

## Projected Employer Contributions

The estimated rate for 2017-18 is based on a projection of the most recent information we have available, including an estimated 2.4 percent investment return for Fiscal Year 2014-15.

The table below shows projected employer contribution rates (before cost sharing) for the next five fiscal years, **assuming CalPERS earns 2.4% for Fiscal Year 2014-15 and 7.50 percent every fiscal year thereafter**, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the projection period.

	Required Contribution	Projected Future Employer Contribution Rates				
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
<b>Normal Cost %</b>	6.555%	6.6%	6.6%	6.6%	6.6%	6.6%
<b>UAL \$</b>	\$149	\$182	\$216	\$253	\$291	\$158

**For new plans where active members have accrued little service the future UAL dollar amounts may be unstable. It is more prudent to use projected normal cost times expected payroll for employer budgeting purposes.**

## **ASSETS AND LIABILITIES**

- **DEVELOPMENT OF PLAN'S SHARE OF POOL'S EXPERIENCE/ASSUMPTION CHANGE**
- **DEVELOPMENT OF PLAN'S SHARE OF POOL'S MVA**
- **SCHEDULE OF PLAN'S SIDE FUND & OTHER AMORTIZATION BASES**
- **ALTERNATIVE AMORTIZATION SCHEDULES**
- **FUNDING HISTORY**

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

It is the policy of the 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 fairly and that maintains benefit security for the members of the System while minimizing substantial variations in employer contributions. For purposes of allocating the pool's experience gains/losses and impact of assumption changes to all the individual plans within the pool, an individual plan's share is allocated as follows:

1.	Plan's Accrued Liability	\$	32,950
2.	Projected UAL balance at 6/30/14		0
3.	Pool's Accrued Liability	\$	13,137,020,035
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/14		2,787,798,208
5.	Pool's 2013/14 Investment & Asset (Gain)/Loss		(915,890,797)
6.	Pool's 2013/14 Other (Gain)/Loss		1,024,915
7.	Plan's Share of Pool's Asset (Gain)/Loss $[(1)-(2)]/[(3)-(4)] * (5)$		(2,916)
8.	Plan's Share of Pool's Other (Gain)/Loss $[(1)]/[(3)] * (6)$		3
9.	Plan's New (Gain)/Loss as of 6/30/2014 $[(7)+(8)]$	\$	(2,913)
10.	Increase in Pool's Accrued Liability due to Change in Assumptions		577,299,719
11.	Plan's Share of Pool's Change in Assumptions $[(1)]/[(3)] * (10)$	\$	1,448

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

1.	Plan's Accrued Liability	\$	32,950
2.	Plan's UAL	\$	(1,465)
3.	Plan's Share of Pool's MVA $(1)-(2)$	\$	<b>34,415</b>

## Schedule of Plan's Side Fund and Other Amortization Bases

There is a two-year lag between the Valuation Date and the Contribution Fiscal Year.

- The assets, liabilities and funded status of the plan are measured as of the valuation date; June 30, 2014.
- The employer contribution determined by the valuation is for the fiscal year beginning two years after the valuation date; Fiscal Year 2016-17.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and due to the need to provide public agencies with their 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 Payment on the UAL for the fiscal year and adjusting for interest.

Reason for Base	Date Established	Amortization Period	Balance 6/30/14	Payment 2014-15	Balance 6/30/15	Payment 2015-16	Amounts for Fiscal 2016-17	
							Balance 6/30/16	Scheduled Payment for 2016-17
FRESH START	06/30/14	5	\$(1,465)	\$(1,079)	\$(457)	\$(1,112)	\$662	\$149
<b>TOTAL</b>			<b>\$(1,465)</b>	<b>\$(1,079)</b>	<b>\$(457)</b>	<b>\$(1,112)</b>	<b>\$662</b>	<b>\$149</b>

Your plan's allocated share of the risk pool's pre-2013 UAL is based on your plan's accrued liability and is amortized over the average amortization period of the combined existing amortization bases prior to June 30, 2013. The payment for Fiscal Year 2014-15 was allocated based on your plan's payroll.

The (gain)/loss bases are your plan's allocated share of the risk pool's gain/loss for the fiscal year as disclosed on the previous page. These (gain)/loss bases will be amortized according to Board policy over 30 years with a 5-year ramp-up.

## Alternate Amortization Schedules

The amortization schedule shown on the previous page shows the minimum contributions required according to CalPERS amortization policy. There has been considerable interest from many agencies in paying off these unfunded accrued liabilities sooner and the possible savings in doing so. As a result, we have provided alternate amortization schedules to help analyze your current amortization schedule and illustrate the advantages of accelerating unfunded liability payments towards your plan's unfunded liability of \$662 as of June 30, 2016, which will require total payments of \$792.

Shown below are the level payments required to amortize your plan's unfunded liability assuming a fresh start over the various periods noted.

Period	2016-17 Payment	Level Payment		
		Total Payments	Total Interest	Savings
N/A	N/A	N/A	N/A	N/A

Current CalPERS Board policy calls for lump sum contributions in excess of the required employer contribution shall first be used to eliminate the side fund, if applicable, and then the plan's share of the pool's unfunded accrued liability.

Please contact your plan actuary before making such a payment to ensure that the payment is applied correctly.

## Funding History

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

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/2014	\$ 32,950	\$ 34,415	\$ (1,465)	104.5%	\$ 219,432

## **RISK ANALYSIS**

- **VOLATILITY RATIOS**
- **ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS**
- **ANALYSIS OF DISCOUNT RATE SENSITIVITY**
- **HYPOTHETICAL TERMINATION LIABILITY**

## Volatility Ratios

The actuarial calculations supplied in this communication are based on a number of assumptions about very long-term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and 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 the employer's rates from one year to the next. Therefore, the rates will inevitably fluctuate, especially due to the ups and downs of investment returns.

### Asset Volatility Ratio (AVR)

Plans that have higher asset to payroll ratios produce more volatile employer rates 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. Below we have shown your asset volatility ratio, a measure of the plan's current rate volatility. 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 (LVR)

Plans that have higher liability to payroll ratios produce more volatile employer rates due to investment return and changes in liability. For example, a plan with a liability to payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability to payroll ratio of 4. The liability volatility ratio is also included in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility and the asset volatility ratio, described above, will tend to move closer to this ratio as the plan matures.

Rate Volatility	As of June 30, 2014	
1. Market Value of Assets	\$	34,415
2. Payroll		219,432
3. Asset Volatility Ratio (AVR = 1. / 2.)		0.2
4. Accrued Liability	\$	32,950
5. Liability Volatility Ratio (LVR = 4. / 2.)		0.2



## Analysis of Future Investment Return Scenarios

The investment return for Fiscal Year 2014-15 was announced July 14, 2015. The investment return in Fiscal Year 2014-15 is 2.4 percent before administrative expenses. For purposes of projecting future employer rates, we are assuming a 2.4 percent investment return for Fiscal Year 2014-15.

The investment return realized during a fiscal year first affects the contribution for the fiscal year two years later. Specifically, the investment return for 2014-15 will first be reflected in the June 30, 2015 actuarial valuation that will be used to set the 2017-18 employer contribution rates, the 2015-16 investment return will first be reflected in the June 30, 2016 actuarial valuation that will be used to set the 2018-19 employer contribution rates and so forth.

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2015-16, 2016-17 and 2017-18 on the 2018-19, 2019-20 and 2020-21 employer contributions. Once again, the projected contributions assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is what one would expect if the markets were to give us a 5<sup>th</sup> percentile return from July 1, 2015 through June 30, 2018. The 5<sup>th</sup> percentile return corresponds to a -3.8 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.
- The second scenario is what one would expect if the markets were to give us a 25<sup>th</sup> percentile return from July 1, 2015 through June 30, 2018. The 25<sup>th</sup> percentile return corresponds to a 2.8 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.
- The third scenario assumed the return for 2015-16, 2016-17, 2017-18 would be our assumed 7.5 percent investment return which represents about a 49<sup>th</sup> percentile event.
- The fourth scenario is what one would expect if the markets were to give us a 75<sup>th</sup> percentile return from July 1, 2015 through June 30, 2018. The 75<sup>th</sup> percentile return corresponds to a 12.0 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.
- Finally, the last scenario is what one would expect if the markets were to give us a 95<sup>th</sup> percentile return from July 1, 2015 through June 30, 2018. The 95<sup>th</sup> percentile return corresponds to a 18.9 percent return for each of the 2015-16, 2016-17 and 2017-18 fiscal years.

The table below shows the estimated projected contributions and the estimated increases for your plan under the five different scenarios.

2015-18 Investment Return Scenario	Estimated Employer UAL Contribution			Estimated Total Change in Employer UAL Contribution between 2017-18 and 2020-21
	2018-19	2019-20	2020-21	
(3.8%) (5th percentile)	\$280	\$445	\$678	\$496
2.8% (25th percentile)	\$243	\$334	\$459	\$277
7.5%	\$216	\$253	\$291	\$109
12.0%(75th percentile)	\$191	\$0	\$0	\$(182)
18.9%(95th percentile)	\$0	\$0	\$0	\$(182)

In addition to the UAL Contribution amounts shown above the estimated employer normal cost of 6.6 percent of payroll will also be payable in each of the fiscal years shown above. The projected plan normal cost is expected to remain relatively stable over this time period.

## Analysis of Discount Rate Sensitivity

The following analysis looks at the 2016-17 total normal cost rates and liabilities under two different discount rate scenarios. Shown below are the total normal cost rates assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis gives an indication of the potential plan impacts if the PERF were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This type of analysis gives the reader a sense of the long-term risk to the contribution rates.

Sensitivity Analysis			
As of June 30, 2014	6.50% Discount Rate (-1%)	7.50% Discount Rate (assumed rate)	8.50% Discount Rate (+1%)
Plan's Total Normal Cost	15.7%	12.8%	10.6%
Accrued Liability	\$38,009	\$32,950	\$28,683
Unfunded Accrued Liability	\$3,594	\$(1,465)	\$(5,732)

## Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of your plan if you had terminated your contract with CalPERS as of June 30, 2014. Your plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For this hypothetical termination liability calculation both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are included.

For the Terminated Agency Pool the CalPERS Board adopted a more conservative investment policy and asset allocation strategy. Since the Terminated Agency Pool has limited funding sources due to the fact that no future employer contributions will be made, expected benefit payments are secured by risk-free assets. With this change, CalPERS increased benefit security for members while limiting its funding risk. However, this asset allocation has a lower expected rate of return than the PERF. Consequently, 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 bond yields observed during the period from July 1, 2013 through June 30, 2015.

Valuation Date		Market Value of Assets (MVA)		Hypothetical Termination Liability <sup>1,2</sup> @ 2.00%		Unfunded Termination Liability @ 2.00%		Hypothetical Termination Liability <sup>1,2</sup> @ 3.75%		Unfunded Termination Liability @ 3.75%
06/30/14	\$	34,415	\$	15,185	\$	(19,230)	\$	15,185	\$	(19,230)

**For plans where active members have little service the hypothetical termination liability methodology used does not fully vest active members upon termination. In these cases the hypothetical termination liability is understated.**

<sup>1</sup> The hypothetical liabilities calculated above include a 7 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in Appendix A.

<sup>2</sup> The current discount rate assumption 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 3.00% on June 30, 2014 and 2.90% on June 30, 2015.

In order to terminate your plan, you must first contact our Retirement Services Contract Unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow your plan actuary to give you a preliminary termination valuation with a more up-to-date estimate of your plan liabilities. CalPERS strongly advises you to consult with your plan actuary before beginning this process.

## Participant Data

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

	<b>June 30, 2013</b>	<b>June 30, 2014</b>
Projected Payroll for Contribution Purposes	\$ 0	\$ 239,779
Number of Members		
Active	0	2
Transferred	0	0
Separated	0	0
Retired	0	0

## List of Class 1 Benefit Provisions

- None

## **PLAN'S MAJOR BENEFIT OPTIONS**

## SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE PEPRA MISCELLANEOUS PLAN OF THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

### Plan's Major Benefit Options

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

Benefit Provision	Contract package	
	Active	Misc
Benefit Formula	2.0% @ 62	
Social Security Coverage	No	
Full/Modified	Full	
Employee Contribution Rate	6.25%	
Final Average Compensation Period	Three Year	
Sick Leave Credit	Yes	
Non-Industrial Disability	Standard	
Industrial Disability	No	
Pre-Retirement Death Benefits		
Optional Settlement 2W	Yes	
1959 Survivor Benefit Level	level 4	
Special	No	
Alternate (firefighters)	No	
Post-Retirement Death Benefits		
Lump Sum	\$500	
Survivor Allowance (PRSA)	No	
COLA	2%	

## Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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



Item No. +

## INFORMATION ITEM

January 13, 2016

**TO:**           **Administration & Finance Committee**  
(Directors Thomas, Osborne, Finnegan)

**FROM:**       Robert Hunter, General Manager

Staff Contact: Harvey De La Torre

**SUBJECT:**   **Monthly Water Usage Data, Tier 2 Projection, and Water Supply Info.**

### STAFF RECOMMENDATION

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

### COMMITTEE RECOMMENDATION

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Committee recommends (To be determined at Committee Meeting)

### REPORT

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The attached figures show the recent trend of water consumption in Orange County (OC), an estimate of Tier 2 volume for MWDOC, and selected water supply information.

- Fig. 1    OC Water Usage, Monthly by Supply   OCWD Groundwater water was the main supply in November.
- Fig. 2    OC Water Usage, Monthly, Comparison to Previous Years   Water usage in November 2015 was below average compared to past three years. Lower usage is primarily due to strong conservation efforts and mandatory restrictions set by the governor.
- Fig. 3    Historical OC Water Consumption   OC water consumption was 571,000 AF in FY 2014-15. This is about 50,000 AF less than FY 2013-14 but is about 16,000 AF higher than FY 2010-11 (Fiscal year with lowest usage). Water usage per person was the lowest it has been for Orange County at 164 gallons per day. 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 Efficiency (water conservation) efforts. High Temperature, precipitation and the economy all remain indicators to O.C. water consumption.

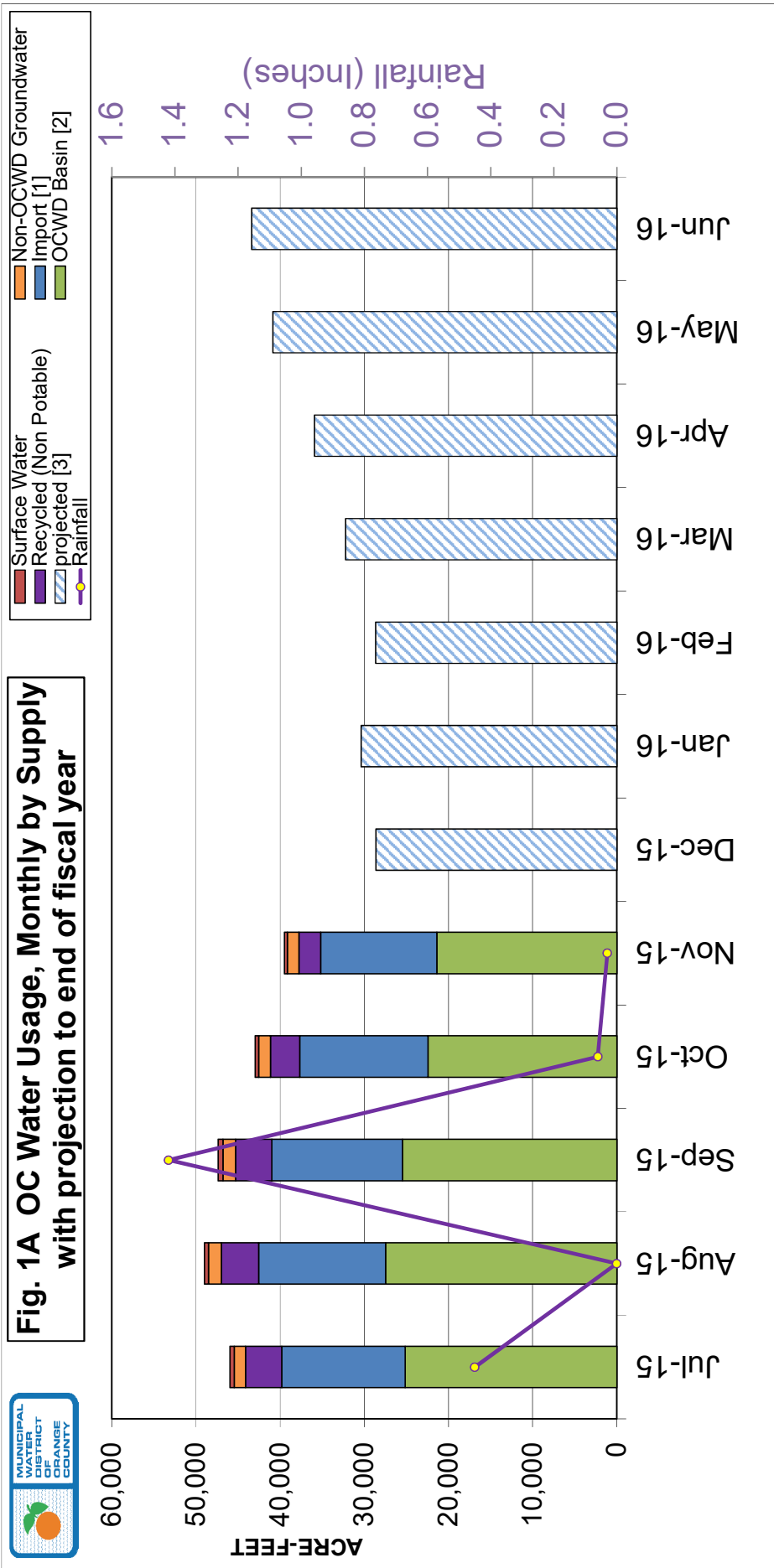
Budgeted (Y/N): N	Budgeted amount: N/A	Core <u>X</u>	Choice <u>  </u>
Action item amount: N/A		Line item:	
Fiscal Impact (explain if unbudgeted):			



Fig. 4 MWDOC “Firm” Water Purchases, 2015 “Firm” water above the Tier 1 limit will be charged at the higher Tier 2 rate. Our current projection of Tier 2 purchases is zero in 2015.

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 has 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. 1<sup>st</sup> through Sept. 30<sup>th</sup>.

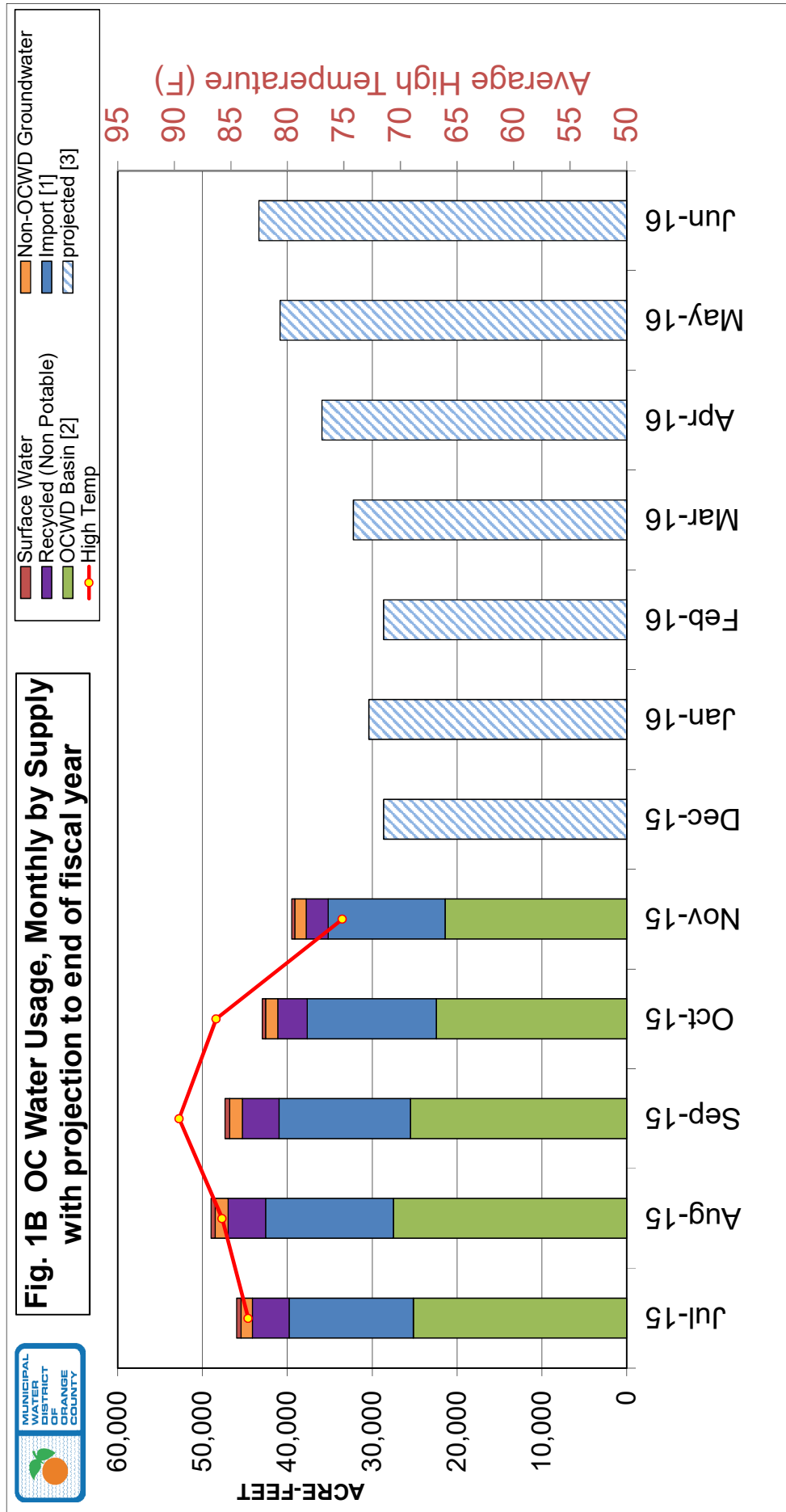
- Orange County’s accumulated rainfall through December was below average for this period. This continues the impact of the previous three hydrologic years’ below-normal rainfall in reducing those local supplies that are derived from local runoff. El Nino conditions are present and 2015-16 winter is developing into a very strong El Nino event. .
- Northern California accumulated precipitation in December was around 94% of normal for this period. The Northern California snowpack is 105% of normal. This follows three below-average hydrologic years. The State of California has been in a declared Drought Emergency since January 2014. The State Water Project Contractors Table A Allocation is only 10% as of the end of December.
- Colorado River Basin accumulated precipitation in November was 104% average for this period. The Upper Colorado Basin snowpack was 107% of average as of April 15<sup>th</sup>. However, this follows two below-average hydrologic years, and this watershed is in a long-term drought. Lake Mead and Lake Powell combined have about 60% of their average storage volume for this time of year. If Lake Mead’s level falls below a “trigger” limit at the end of a calendar year, then a shortage will be declared by the US Bureau of Reclamation (USBR), impacting Colorado River water deliveries for the Lower Basin states. As of Late July Lake Mead Levels were hovering around the “trigger” limit but fortunately levels are expecting to increase from the large amounts of precipitation that hit the Colorado River Basin this summer and spring. The USBR predicts that the “trigger” level will not be hit by the end of 2015.



[1] Imported water for consumptive use. Includes "In-Lieu" deliveries and CUP water extraction. Excludes "Direct Replenishment" deliveries of spreading water, "Barrier Replenishment" deliveries, 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 '14-15 is 72%.

[3] MWDOC's estimate of monthly demand is based on the projected FY 15-16 "Retail" water demand and historical monthly demand patterns.



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

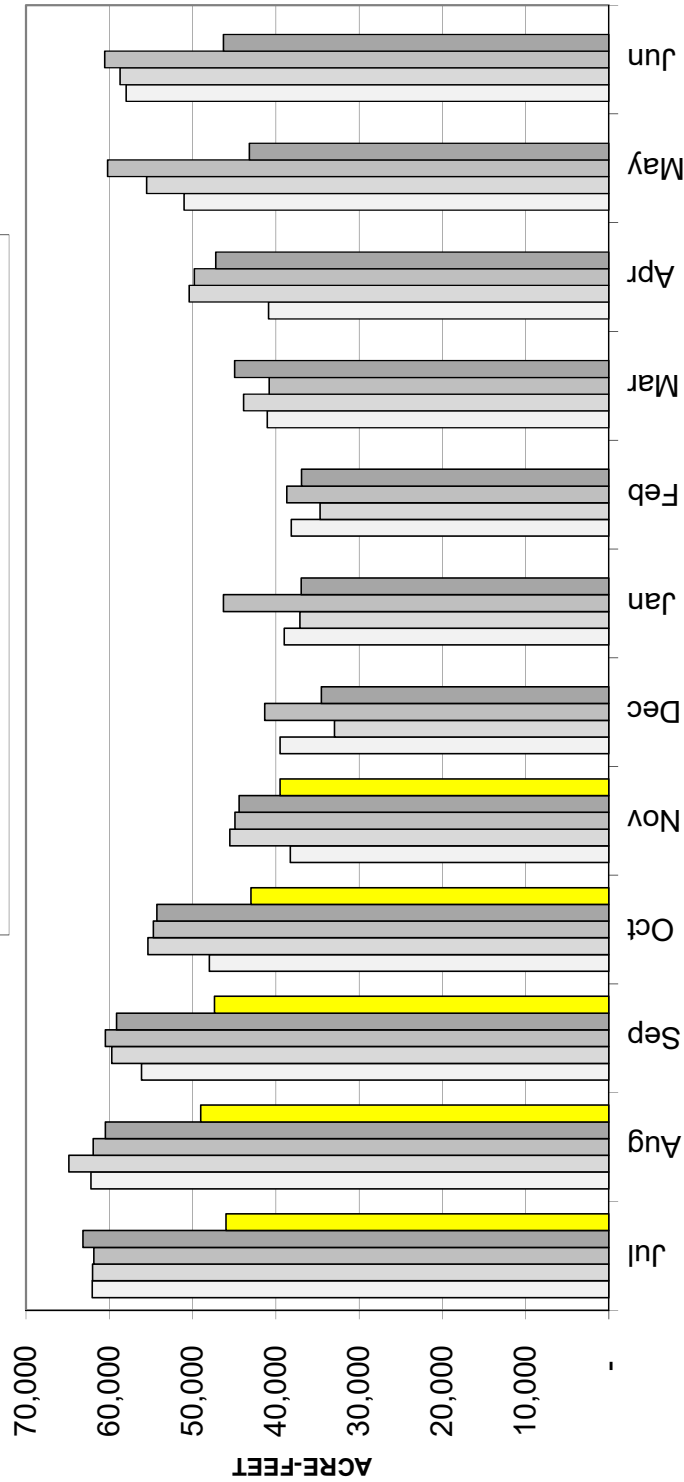
[2] GW for consumptive use only. Excludes In-Lieu water deliveries and CUP water extraction that are counted with Import. BPP in FY '14-15 is 72%.

[3] MWDOC's estimate of monthly demand is based on the projected FY 15-16 "Retail" water demand and historical monthly demand patterns.

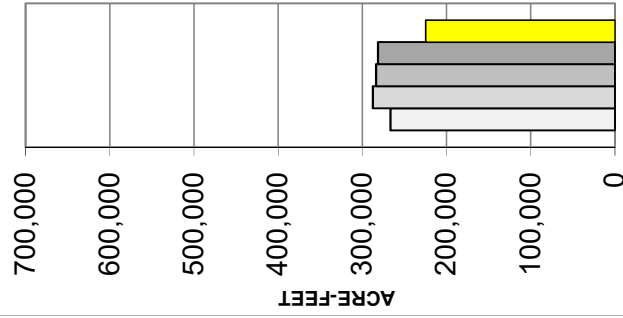


**Fig. 2A OC Monthly Water Usage [1]: Comparison to Last 4 Fiscal Years**

□ FY 11-12   □ FY 12-13   □ FY 13-14   □ FY 14-15   □ FY 15-16



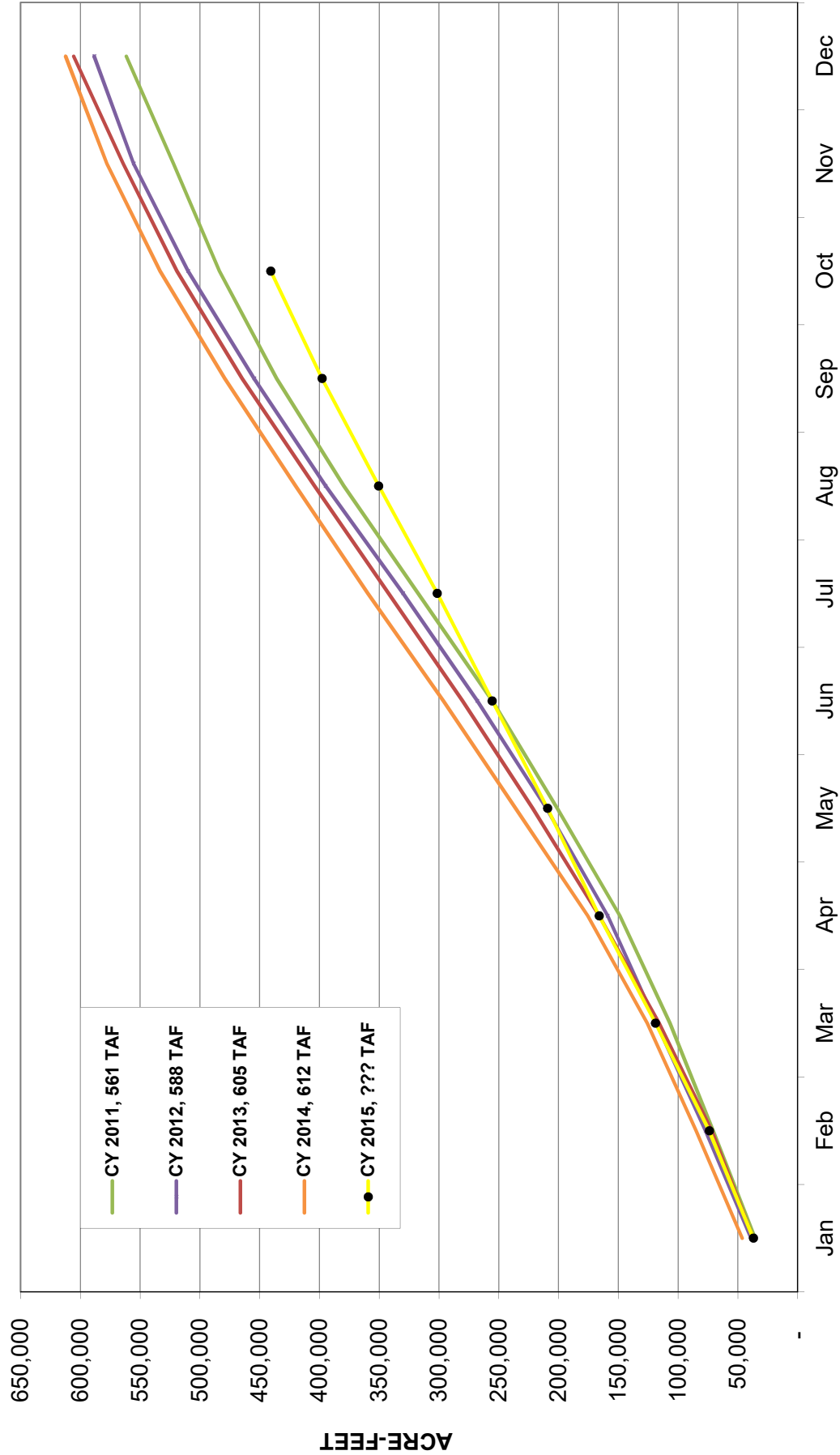
**Partial Year Subtotals**



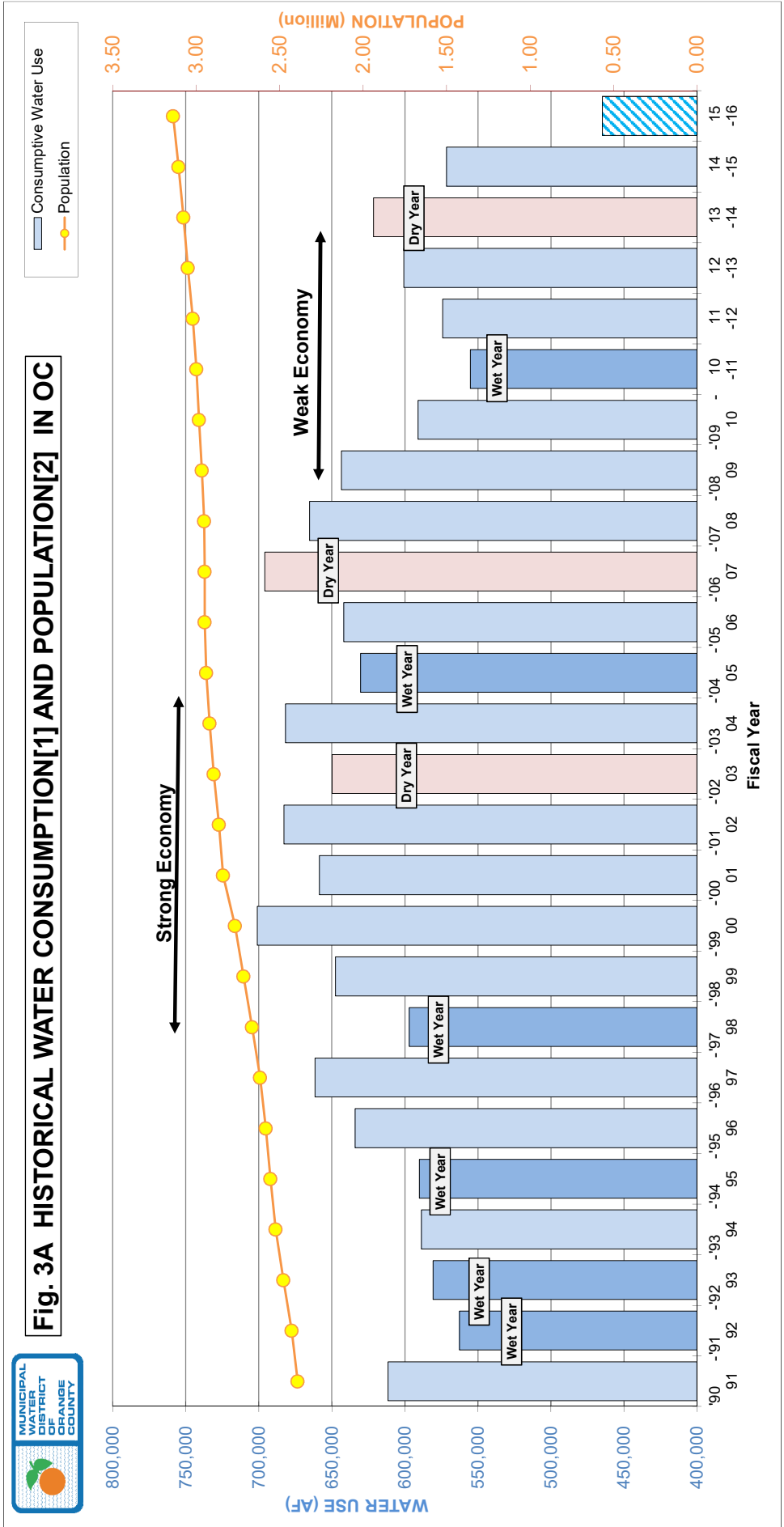
[1] Sum of Imported water for consumptive use (includes "In-Lieu" deliveries; excludes "Direct Replenishment" and "Barrier Replenishment") and Local water for consumptive use



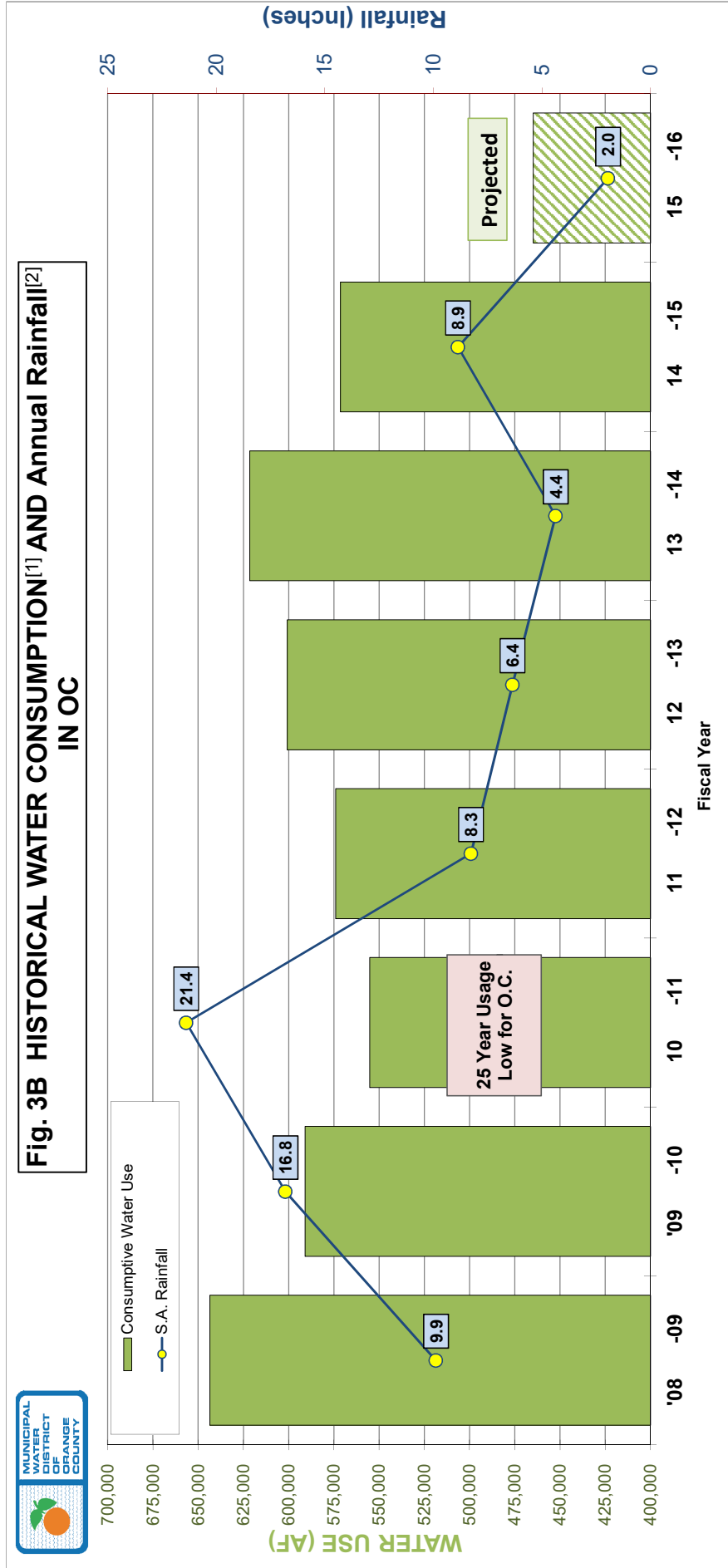
**Fig. 2B Orange County Cumulative Monthly Consumptive Water Usage [1]:**  
present year compared to last 4 calendar years



[1] Sum of Imported water for consumptive use (includes "In-Lieu" deliveries; excludes "Direct Replenishment" and "Barrier Replenishment") and Local water for consumptive use

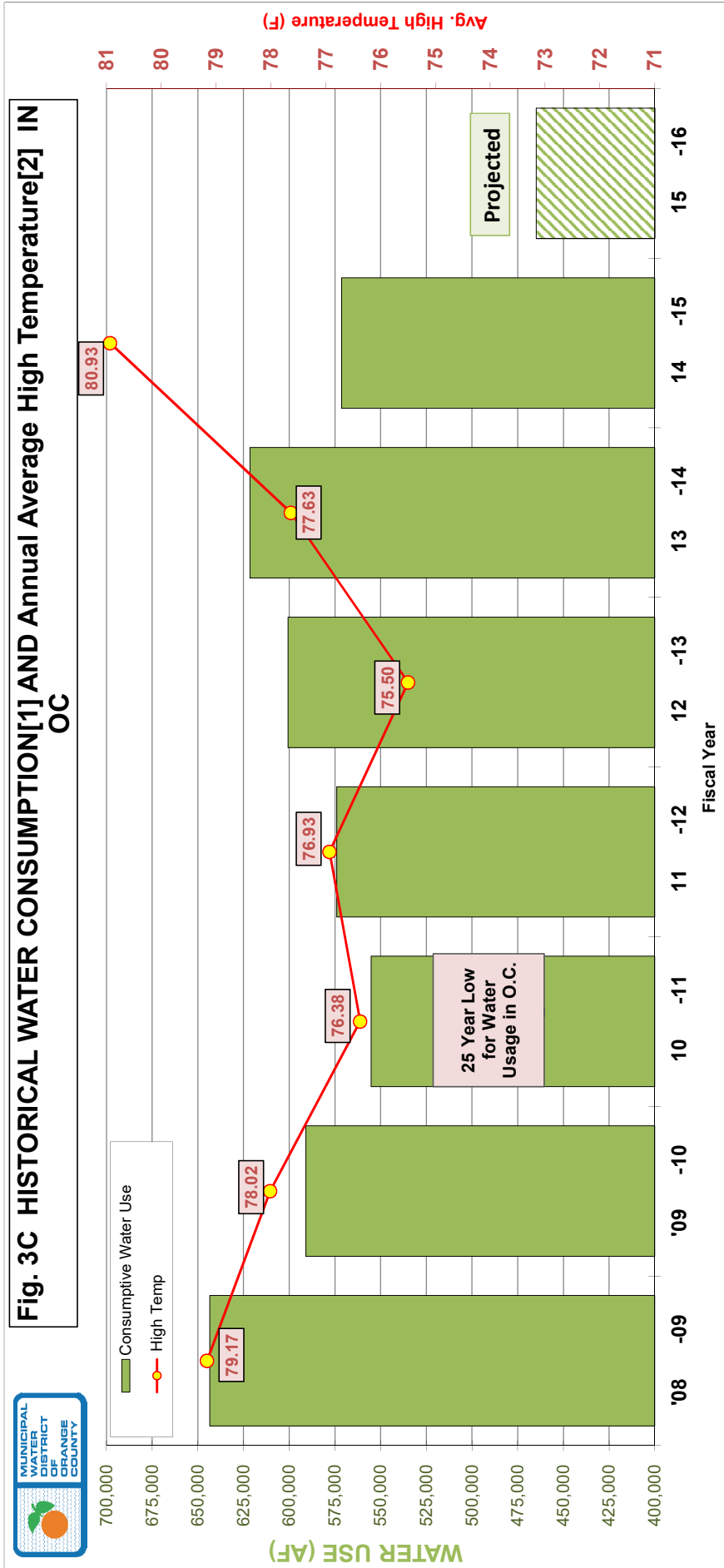


- [1] Consumption includes potable, recycled and non-potable usage; excludes Barrier and Spreading water. The most recent data involve some estimation.
- [2] Population estimates in the 2000s decade were revised by the State Dept. of Finance to reflect the 2010 Census counts.
- [3] Projection of FY 15-16 water use estimated by MWD OC based on partial-year data.



[1] Consumption includes potable, recycled and non-potable usage; excludes Barrier and Spreading water. The most recent data involve some estimation.

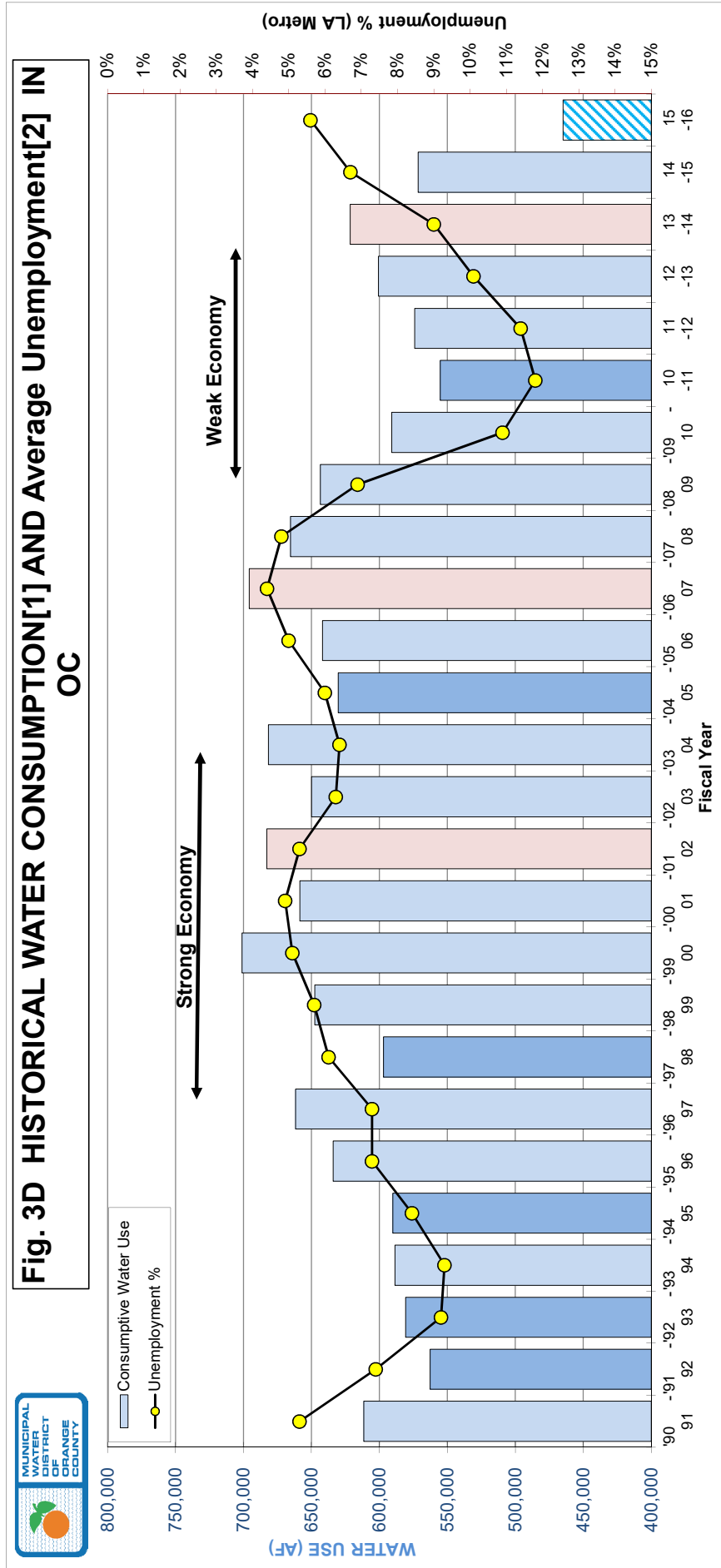
[2] Rainfall data from Santa Ana Station #121



[1] Consumption includes potable, recycled and non-potable usage; excludes Barrier and Spreading water. The most recent data involve some estimation.

[2] Temperature data is from Santa Ana Fire Station, elevation 135'

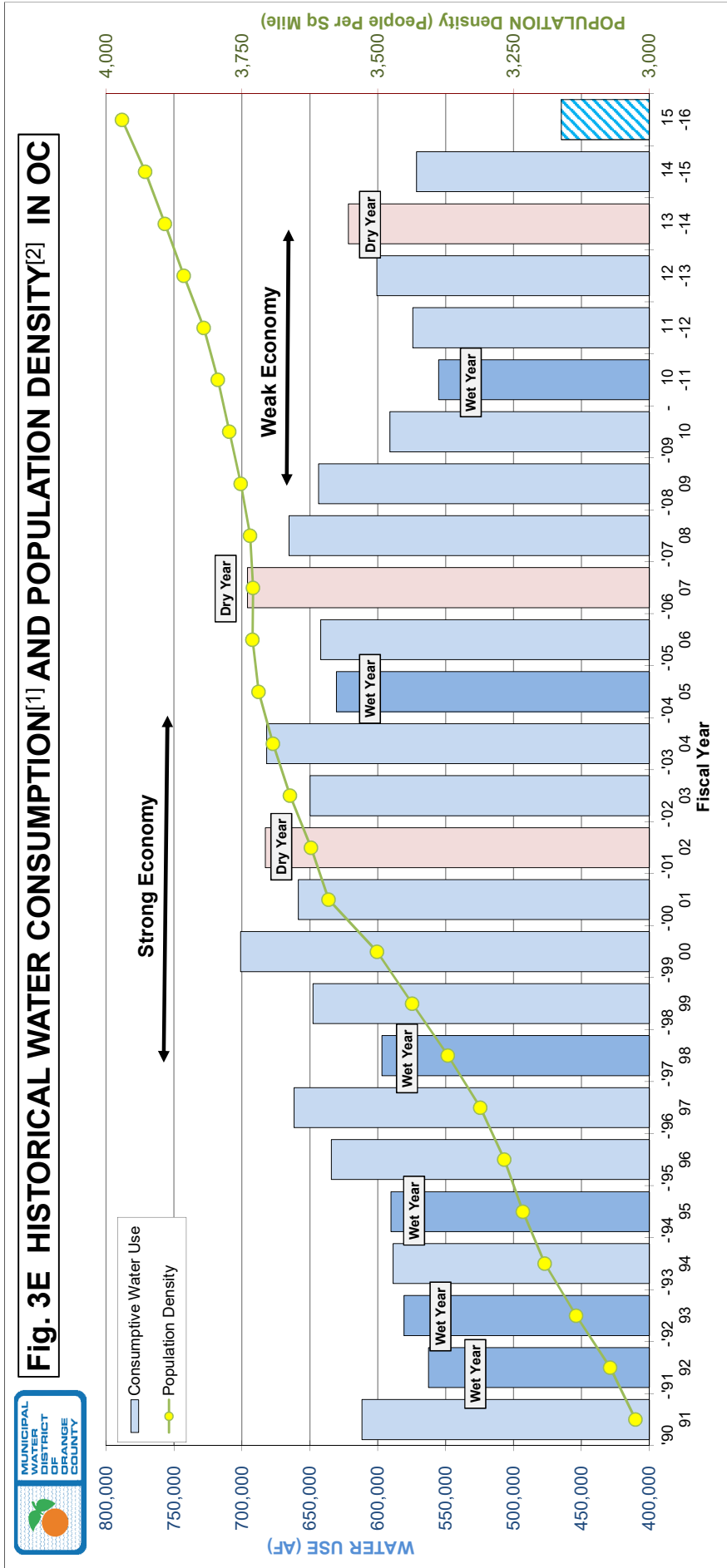




[1] Consumption includes potable, recycled and non-potable usage; excludes Barrier and Spreading water. The most recent data involve some estimation.

[2] Employment Data source Bureau of Labor Statistic: for Long Beach-L.A.-Santa Ana Metro Area

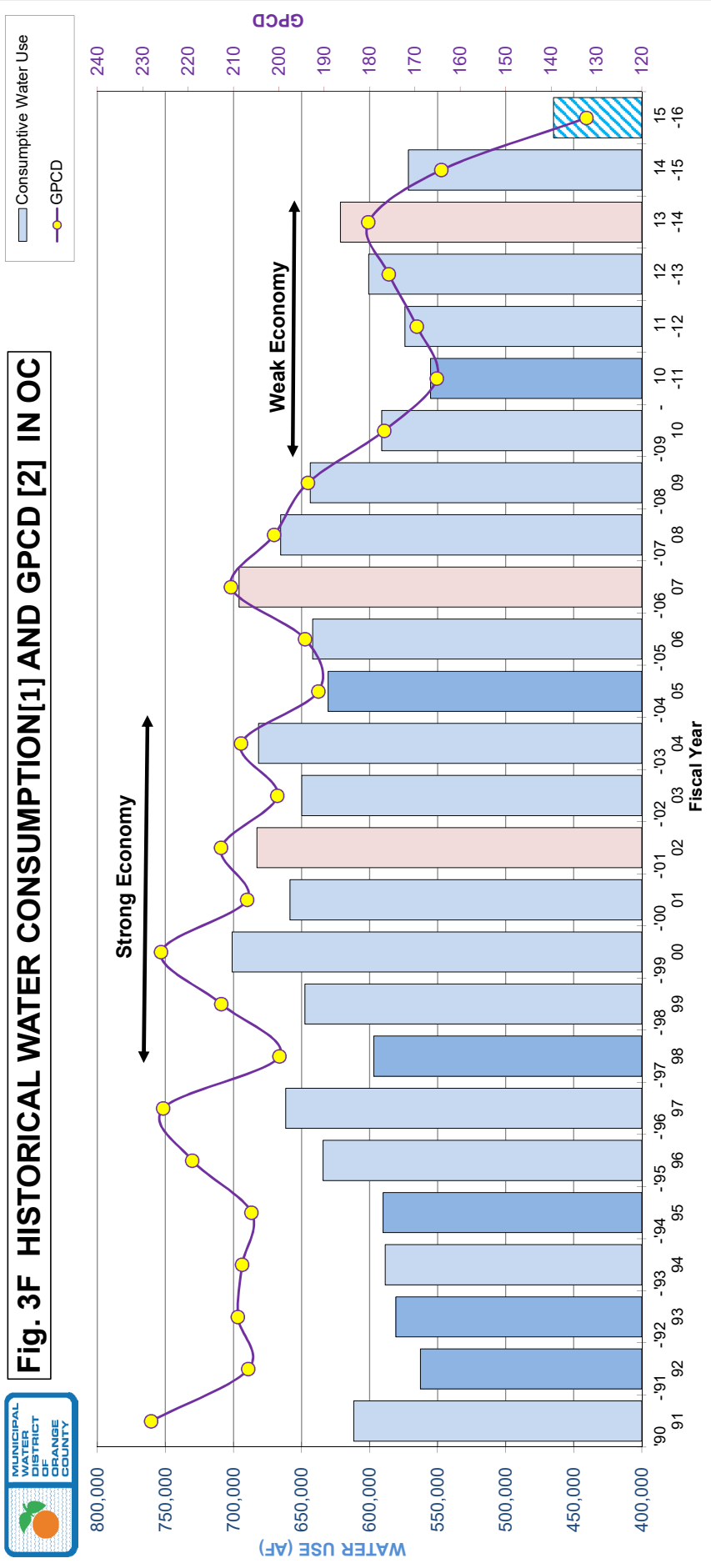
<http://www.bls.gov/lau/>



[1] Consumption includes potable, recycled and non-potable usage; excludes Barrier and Spreading water. The most recent data involve some estimation.  
 [2] Population estimates in the 2000s decade were revised by the State Dept. of Finance to reflect the 2010 Census counts.

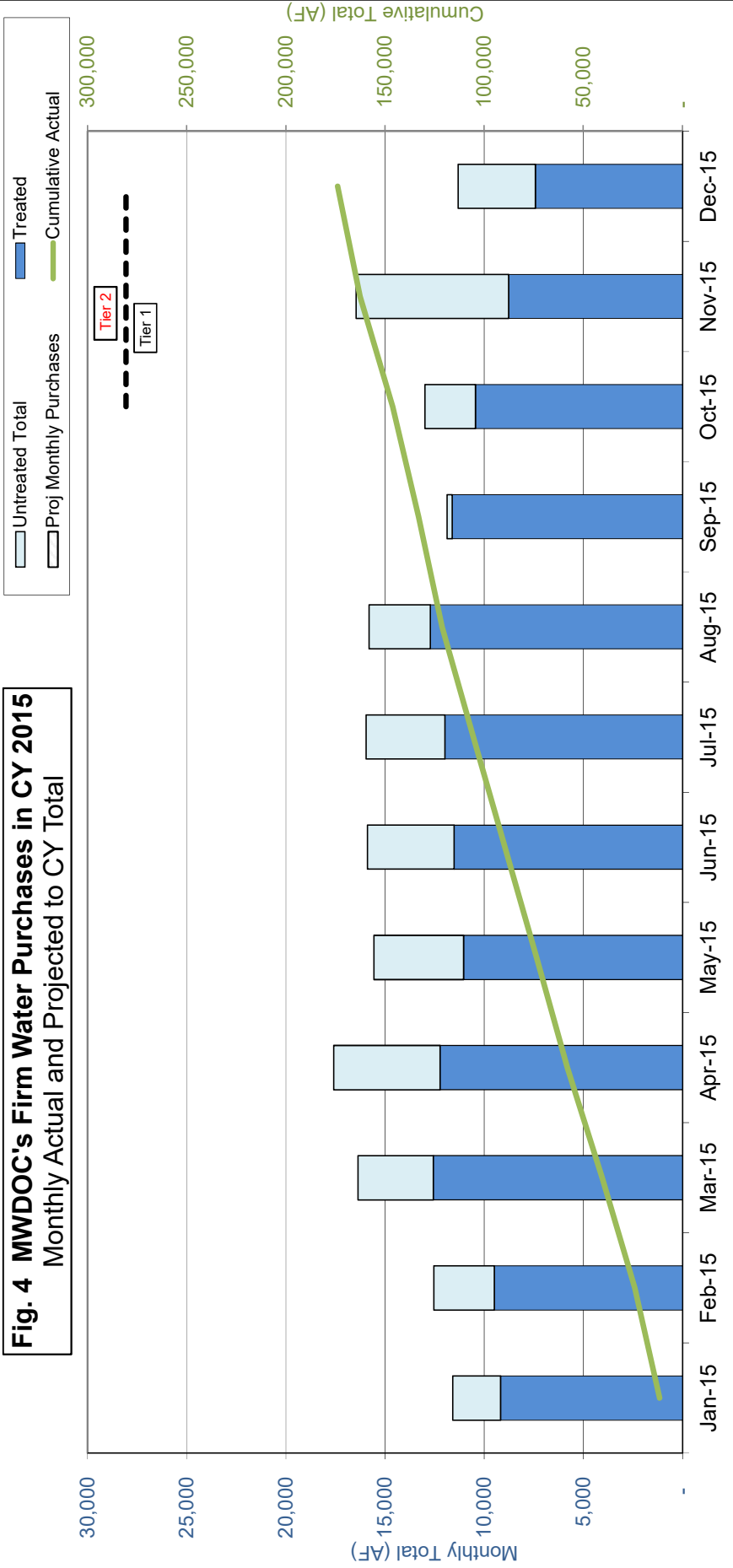


**Fig. 3F HISTORICAL WATER CONSUMPTION[1] AND GPCD [2] IN OC**



[1] Consumption includes potable, recycled and non-potable usage; excludes Barrier and Spreading water. The most recent data involve some estimation.  
 [2] Gallon per Capita Daily (includes all types of water usage and all type of water users).

**Fig. 4 MWDOC's Firm Water Purchases in CY 2015**  
Monthly Actual and Projected to CY Total



**Notes**

1. "Firm" includes Full Service (both Treated and Untreated) and Barrier water.
2. Basin Pumping Percentage (BPP) is the percentage of a retail water agency's total water demand that they are limited to pump from the OCWD-managed groundwater basin. BPP pertains to Basin agencies only. For example, if a Basin agency's total demand is 10,000 AF/yr and OCWD sets the BPP at 72%, then the agency is limited to 7,200 AF of groundwater that year. There may be certain exceptions and/or adjustments to that sample calculation. OCWD sets the BPP for the Basin agencies, usually as of July 1st. Import demands for Jan.-Jun. were with BPP of 72% for Basin agencies; for Jul.-Dec. they are projected with BPP of 70%.

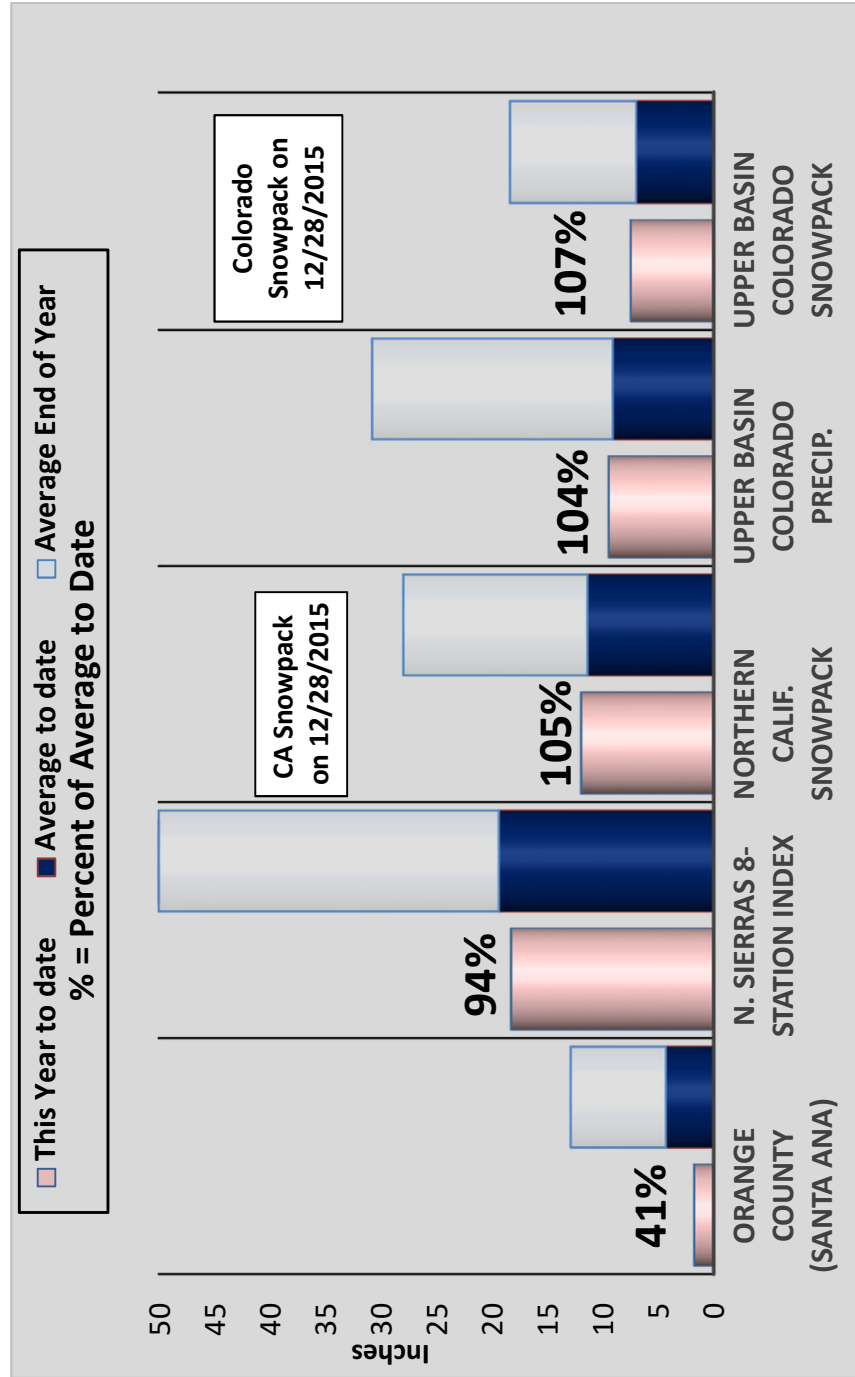


prepared by the Municipal Water District of Orange County  
\*numbers are subject to change

printdate 1/4/2016

# Accumulated Precipitation

for the Oct.-Sep. water year, through early January 2016



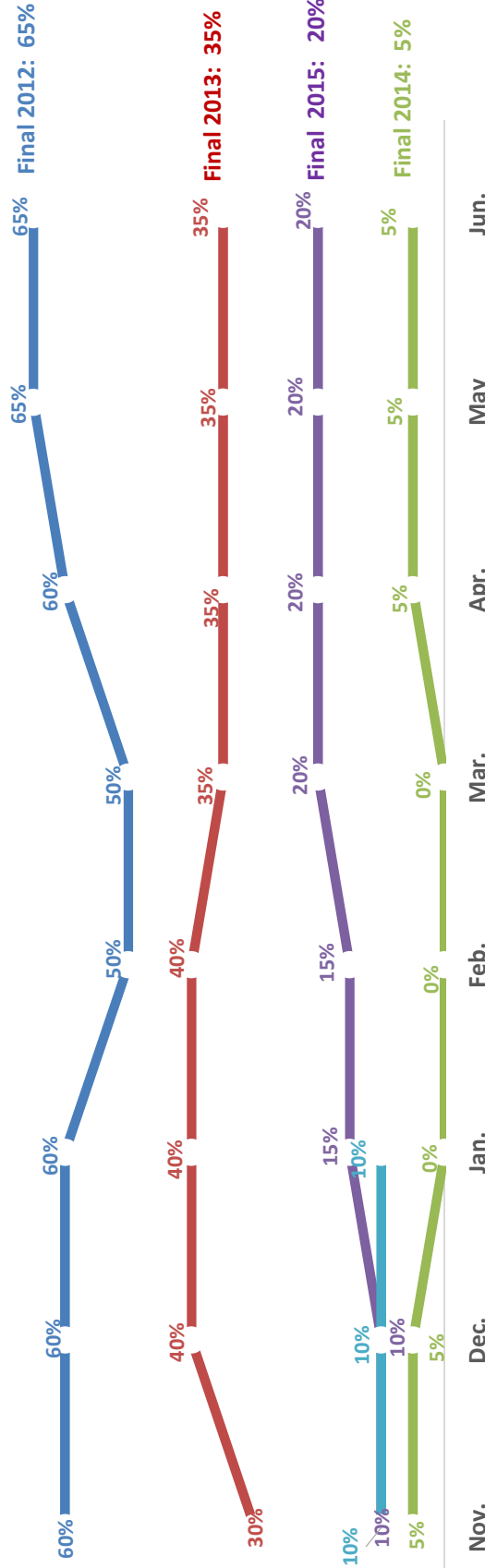
\* The date of maximum snowpack accumulation (April 1st in Northern Calif. , April 15th in the Upper Colorado Basin) is used for year to year comparison.



## SWP TABLE A ALLOCATION

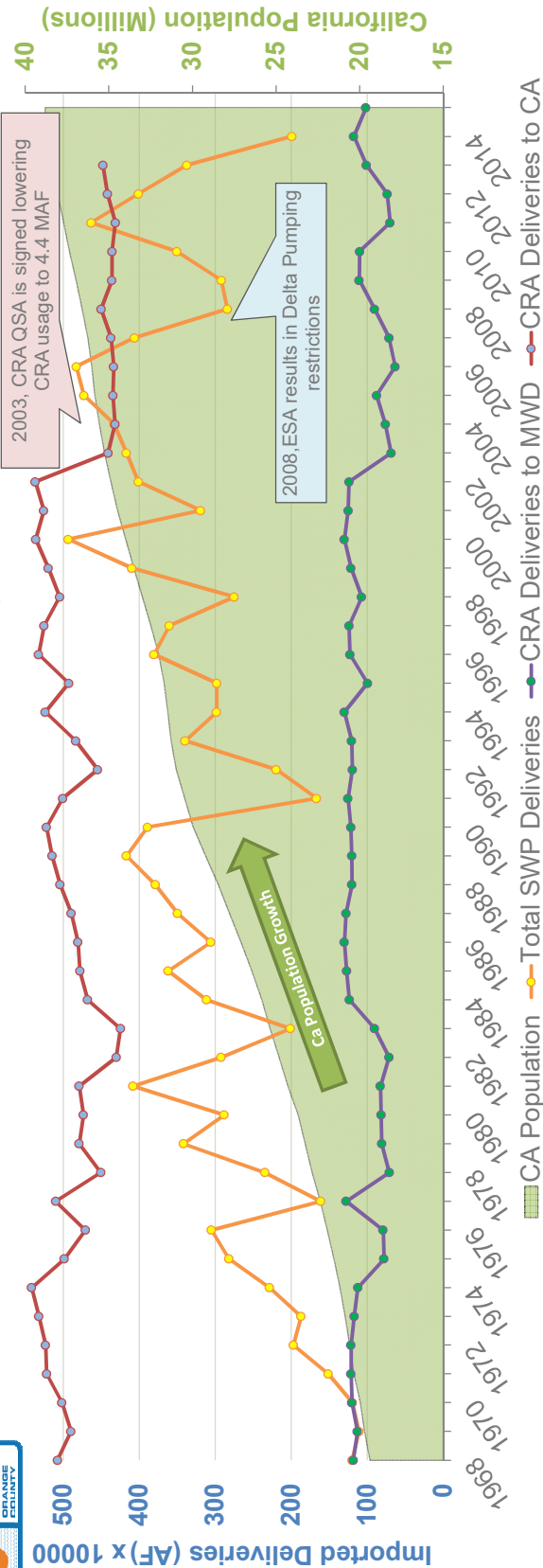
FOR STATE WATER PROJECT CONTRACTORS

Final 2016: ???

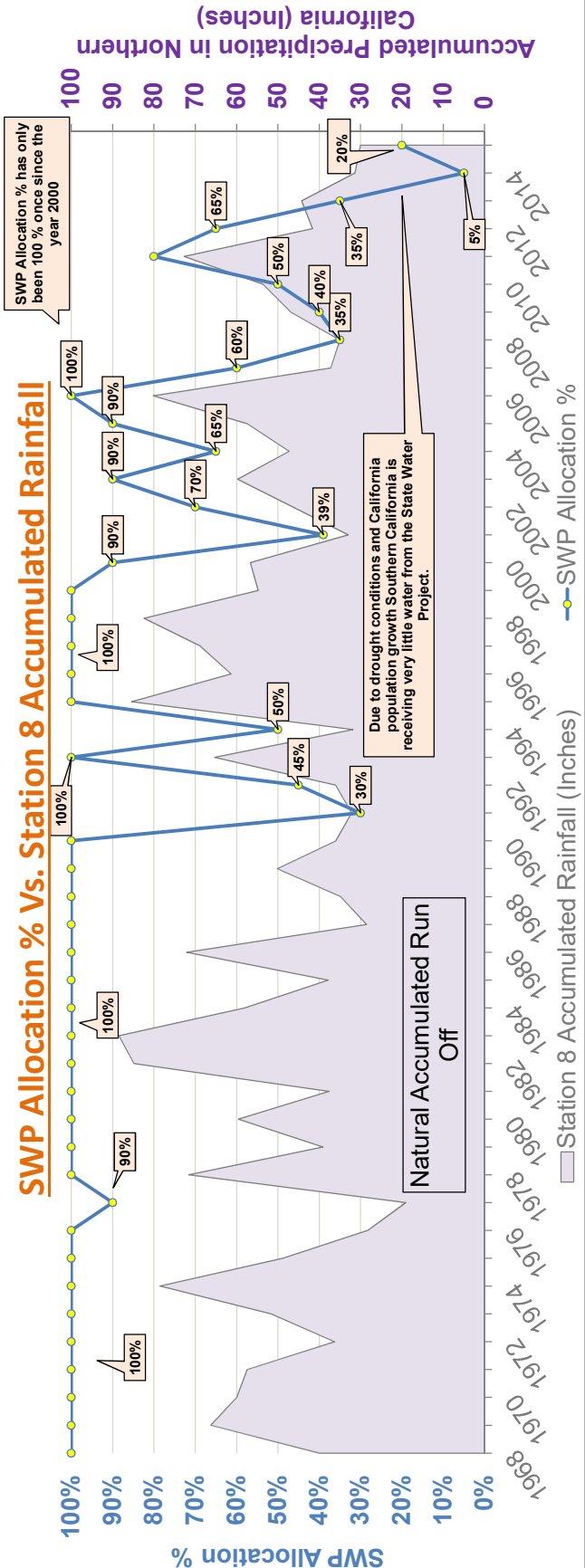




## Imported Water Deliveries Vs. California Population Growth



## SWP Allocation % Vs. Station 8 Accumulated Rainfall

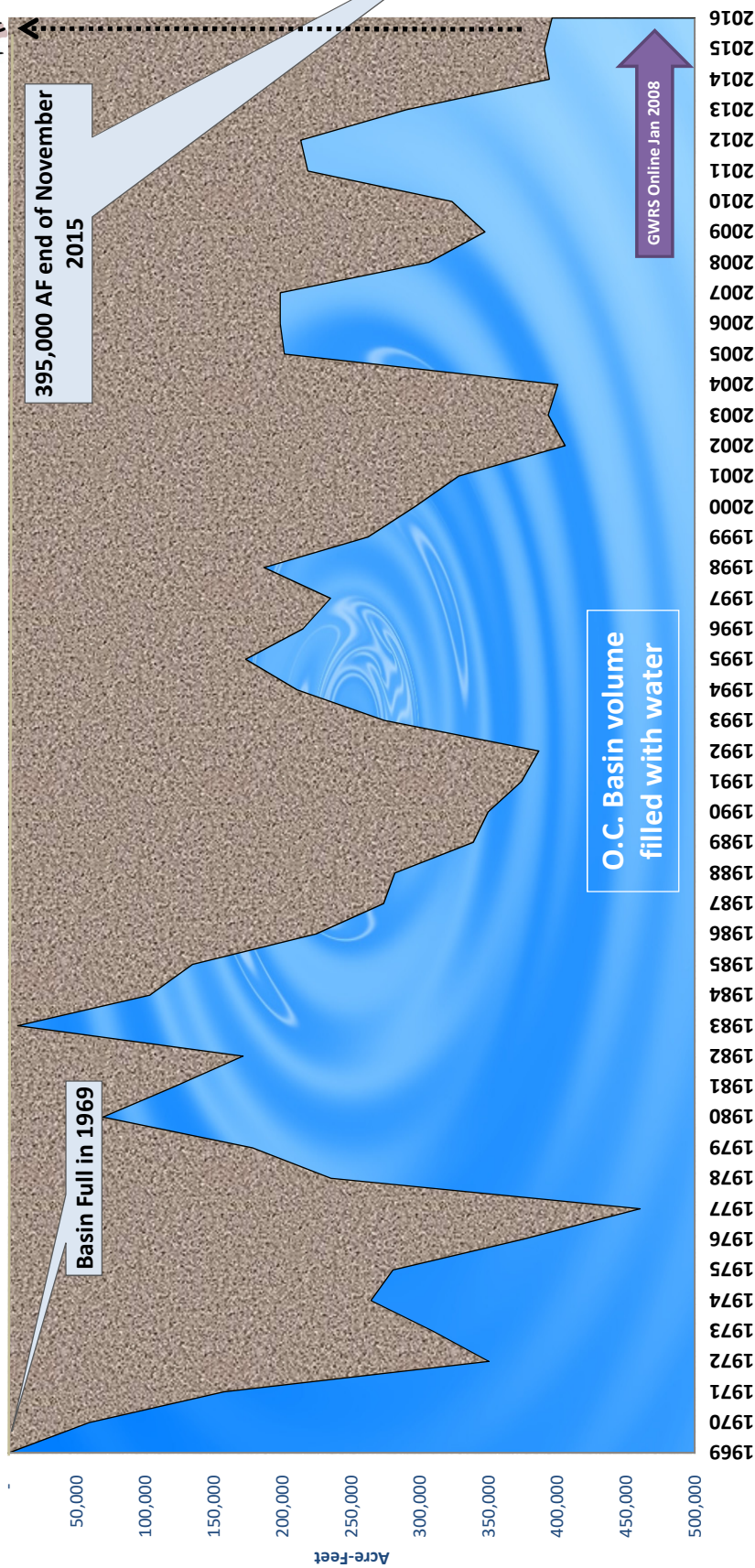






## O.C. Basin Accumulated Overdraft

Annual, 1969 to Present



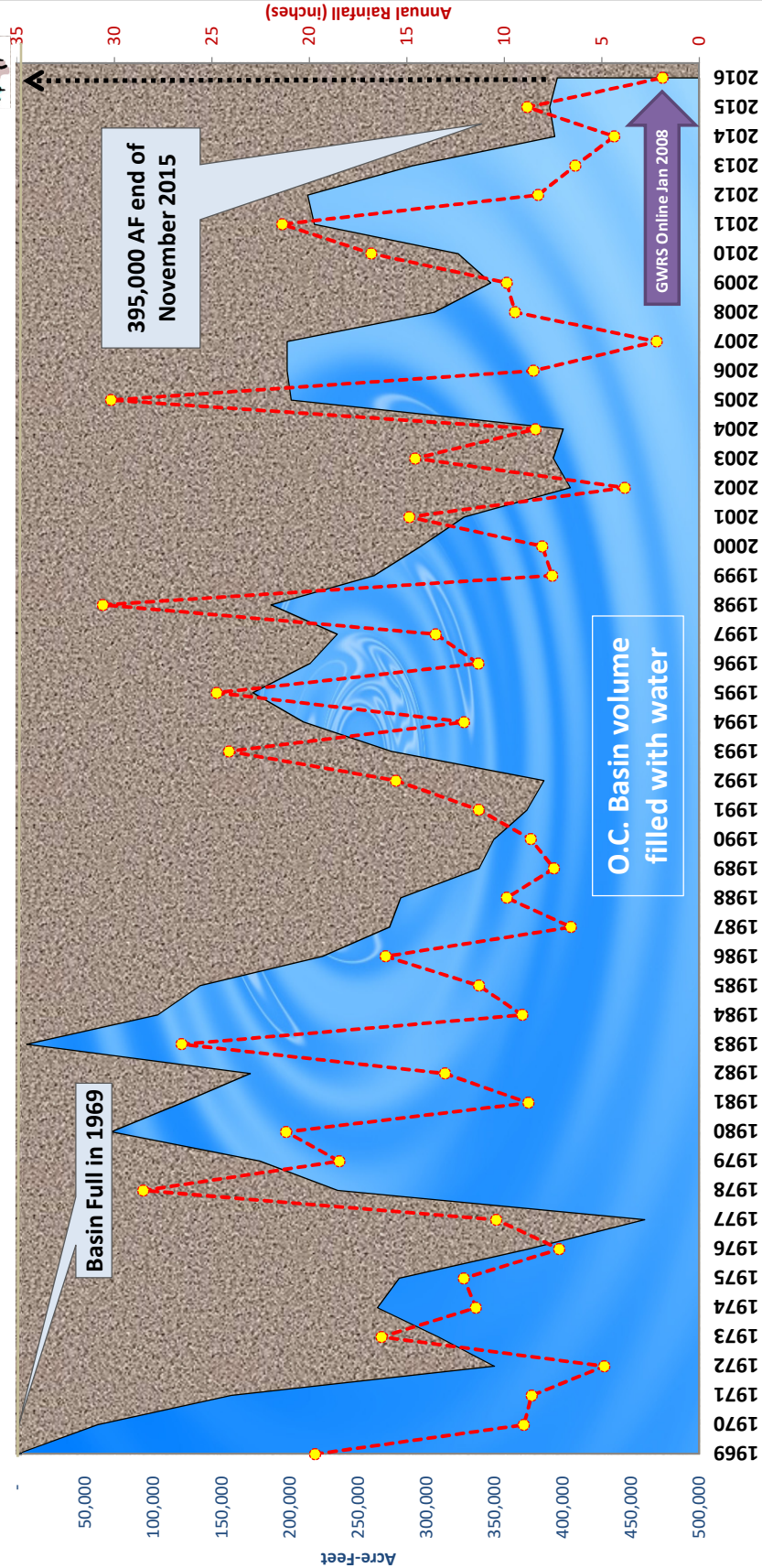
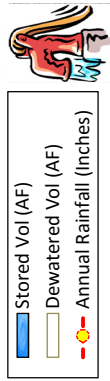
~ Accumulated Overdraft (dewatered volume) shown as white area, excluding the volume stored by Metropolitan. source: OCWD





## O.C. Basin Accumulated Overdraft Vs. Annual Rainfall

Annual, 1969 to Present

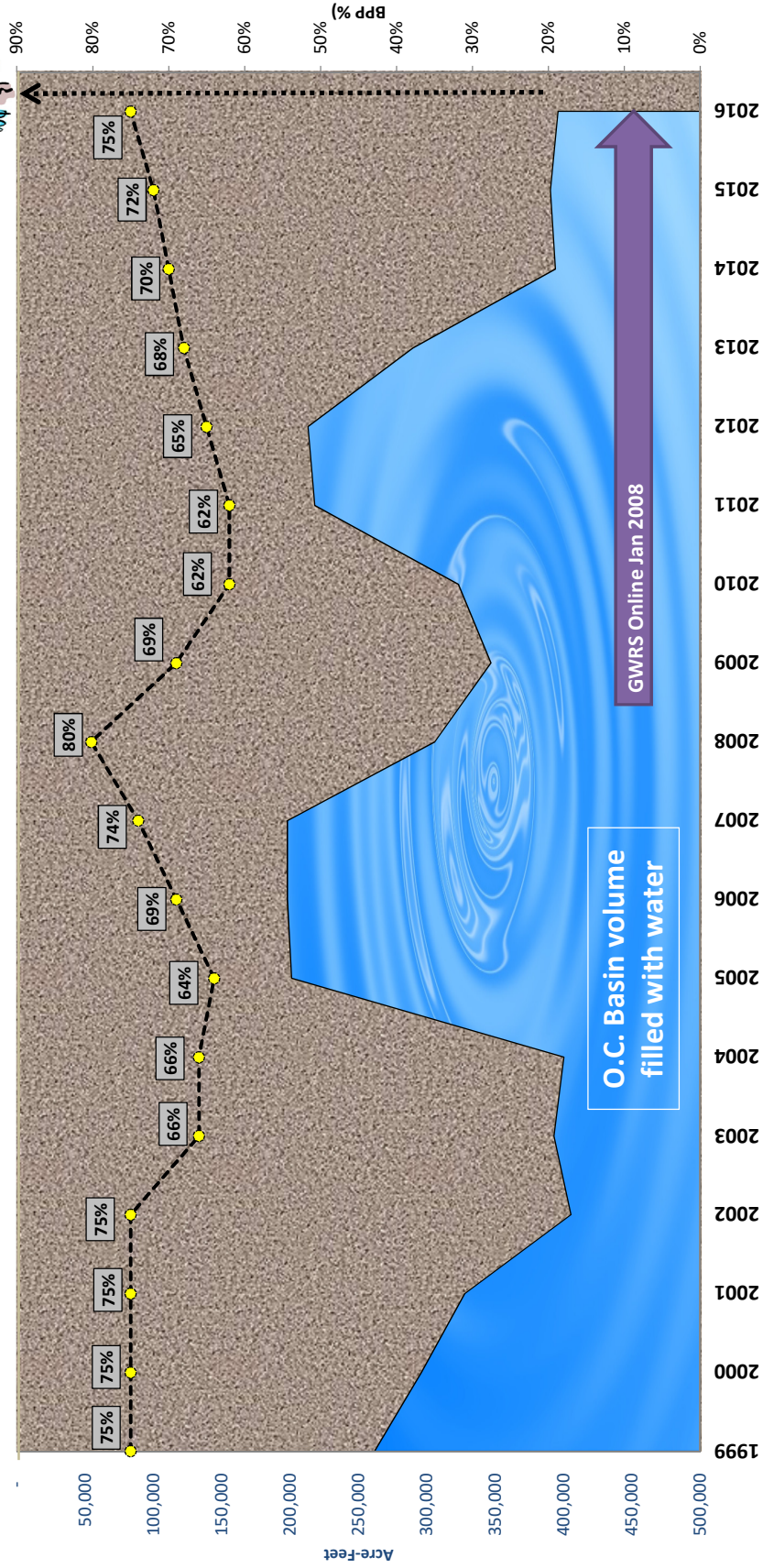
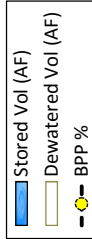


~ Accumulated Overdraft (dewatered volume) shown as white area, excluding the volume stored by Metropolitan. source: OCWD



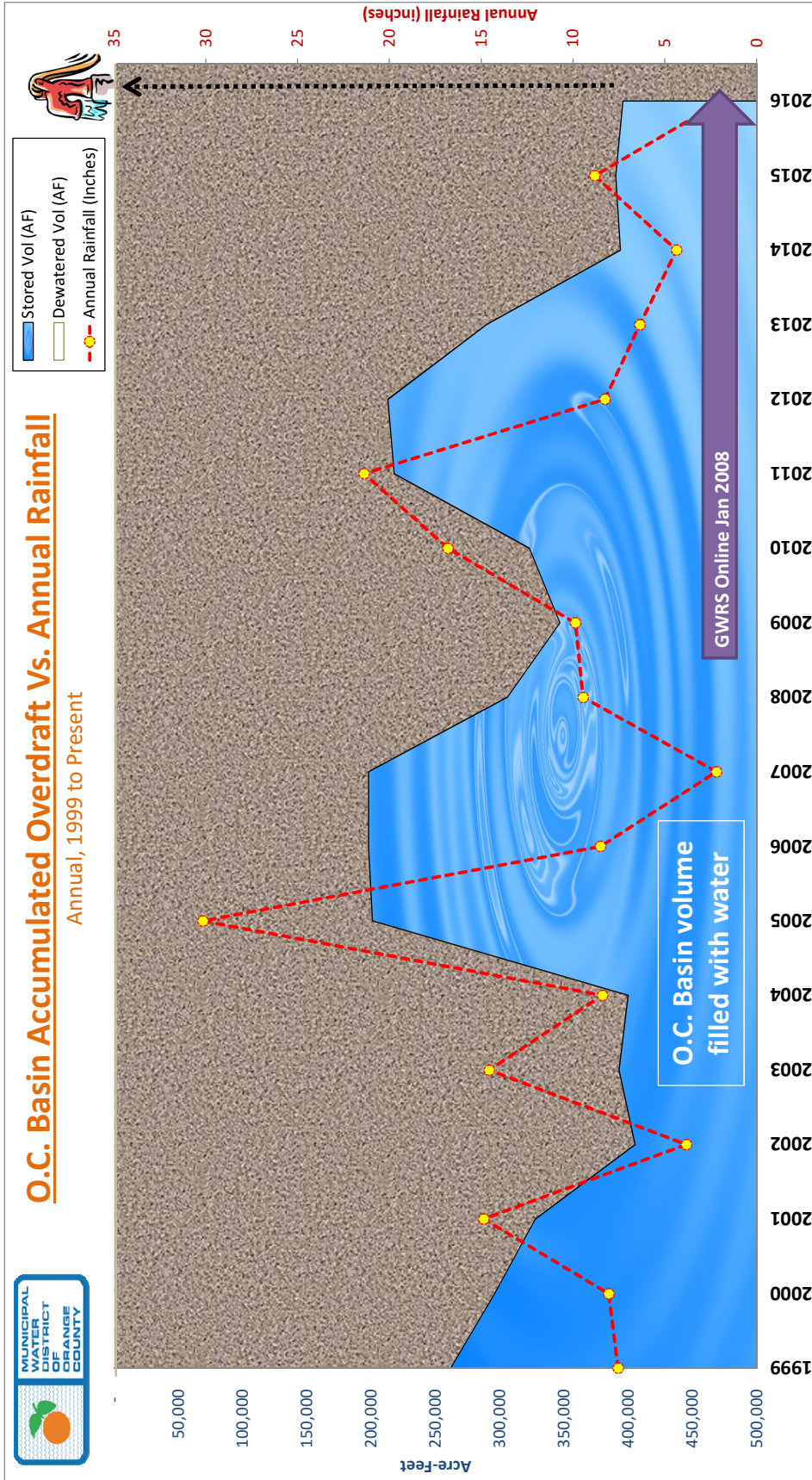
## O.C. Basin Accumulated Overdraft Vs. BPP %

Annual, 1999 to Present

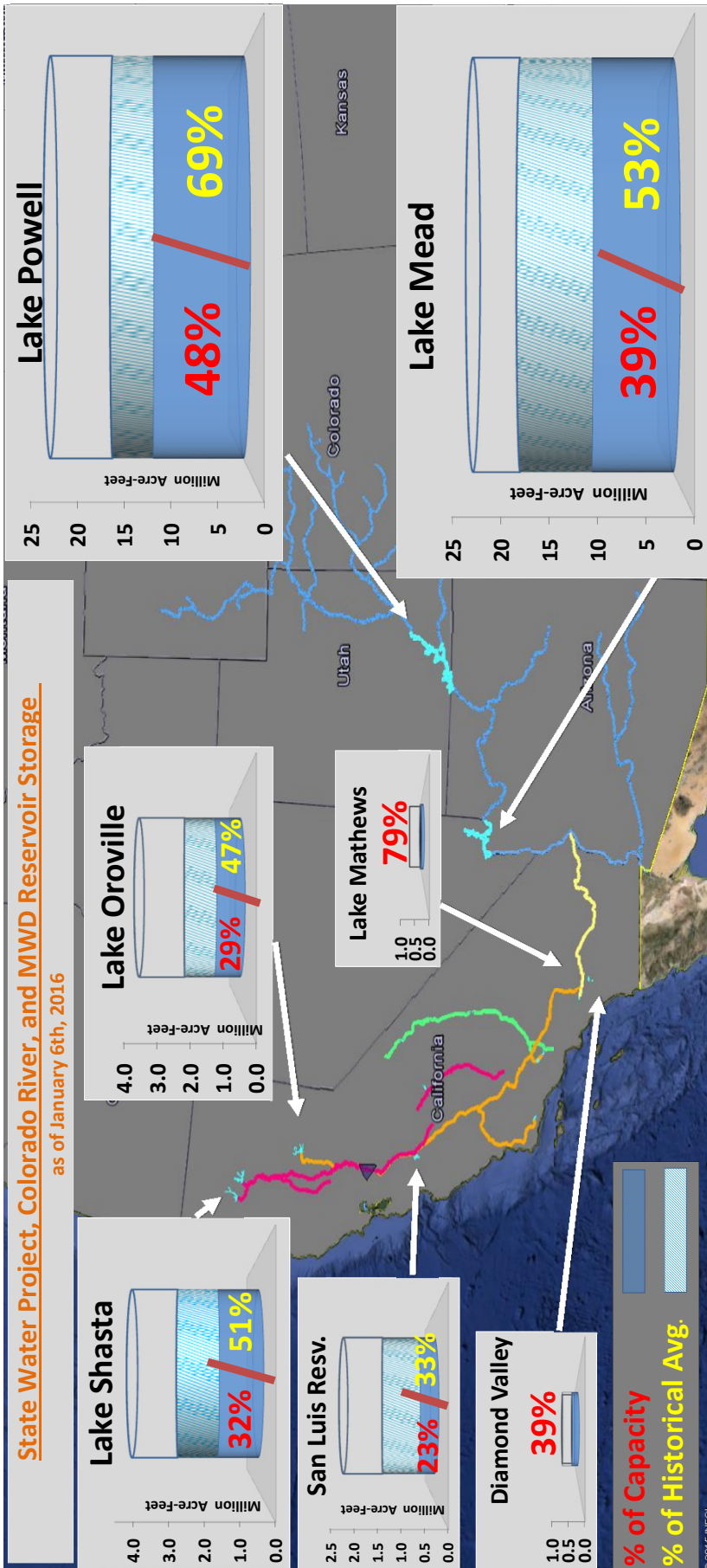


~ Accumulated Overdraft (dewatered volume) shown as white area, excluding the volume stored by Metropolitan. source: OCWD



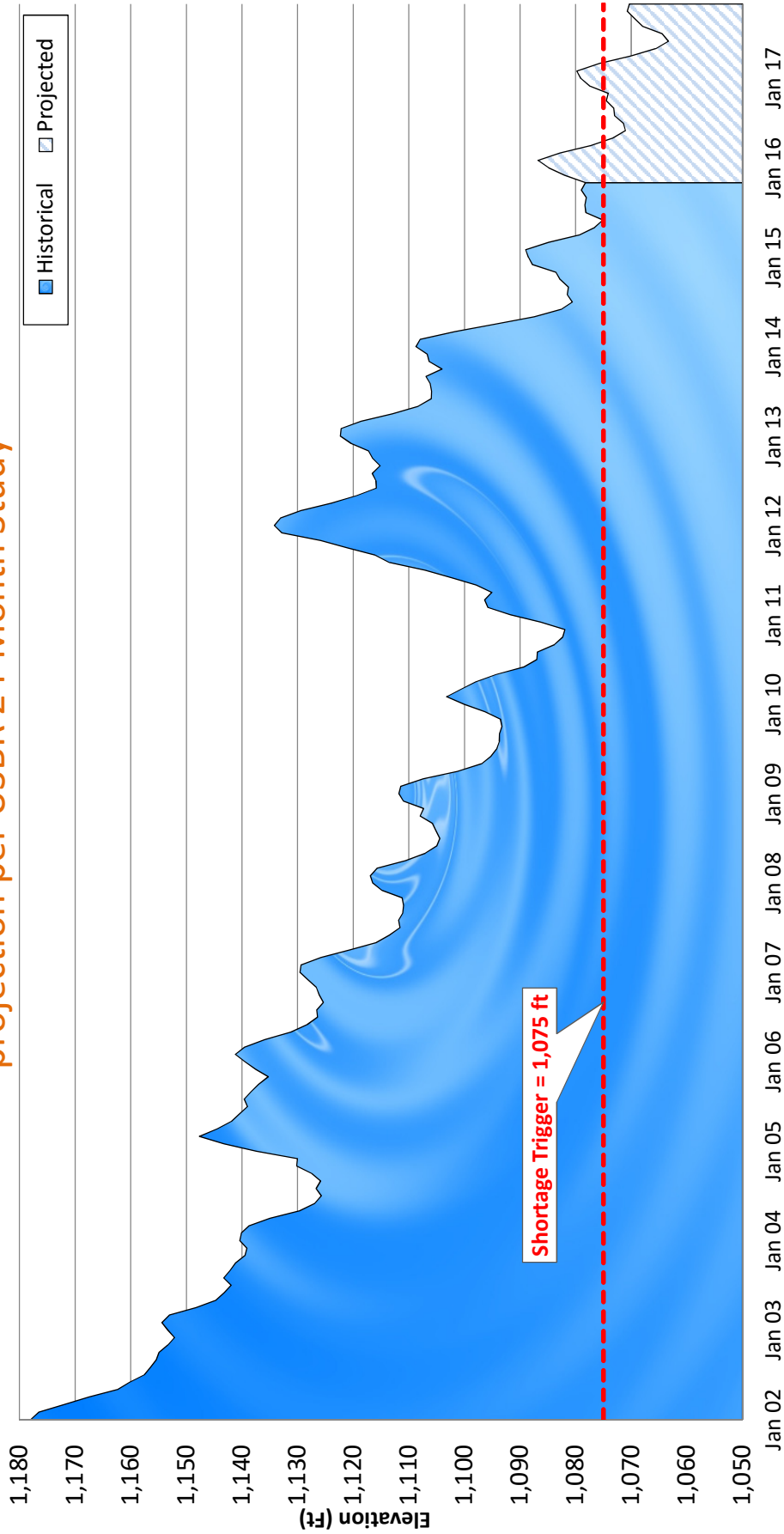


~ Accumulated Overdraft (dewatered volume) shown as white area, excluding the volume stored by Metropolitan. source: OCWD





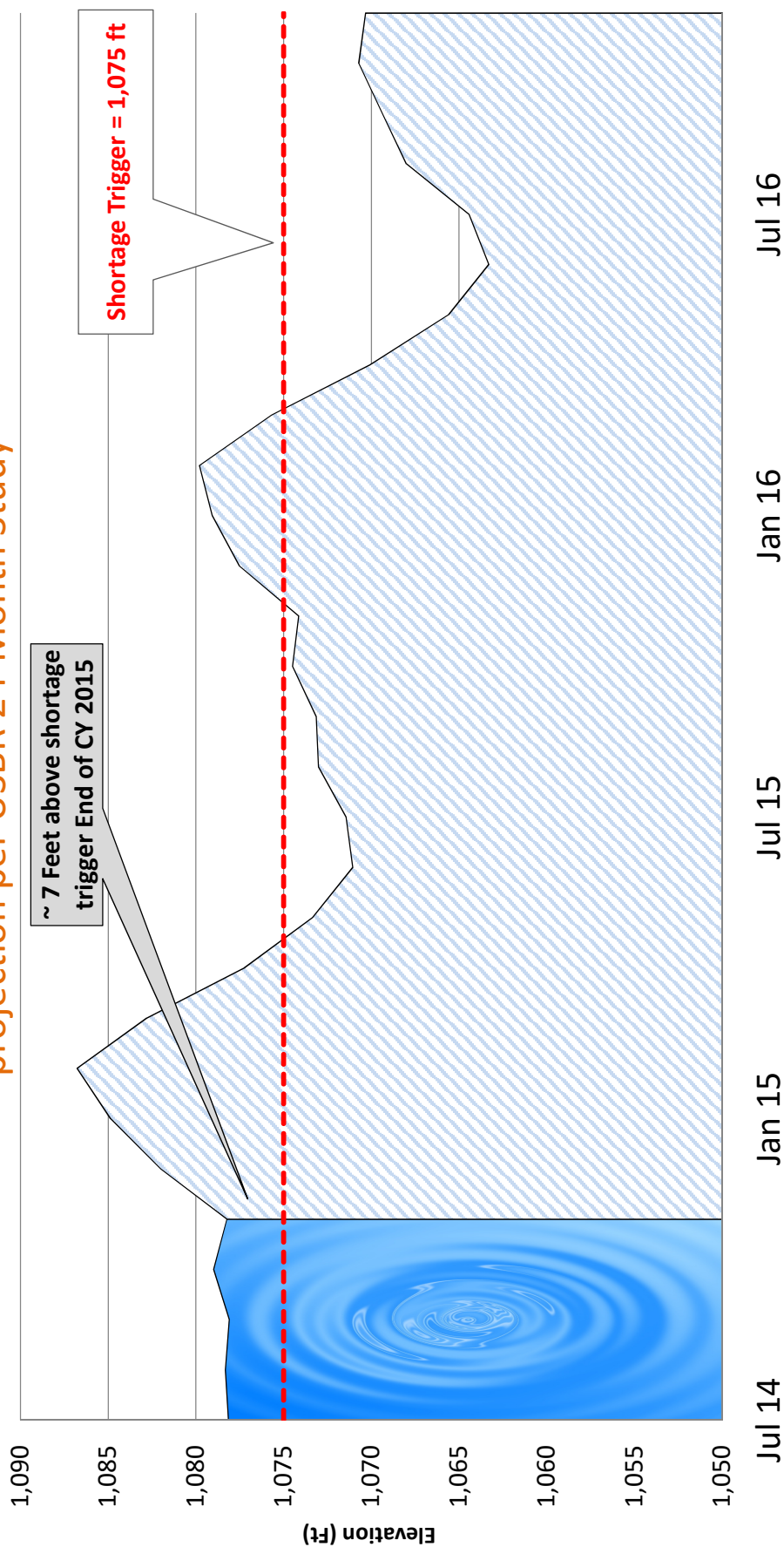
## Lake Mead Levels: Historical and Projected projection per USBR 24-Month Study





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

■ Historical    □ Projected



**Administration Activities Report  
December 4, 2015 to January 7, 2016**

Activity	Summary
<b>Administration/Board</b>	<ul style="list-style-type: none"> <li>• Maribeth has been scheduling meetings for Rob Hunter and other various meetings of the Board members</li> <li>• Maribeth has been assisting Rob/Karl with various write ups and follow-up for the Committees and Board, as well as a couple of comprehensive research projects.</li> <li>• Maribeth reapplied for the Transparency of Excellence award and is currently awaiting a response (the District was notified that a response will be made in May or June)</li> <li>• Maribeth is orchestrating updates to the Open Government Portal and recommending changes/updates.</li> <li>• Maribeth organized and oversaw Richard's retirement luncheon along with Pat and Bryce.</li> <li>• Maribeth organized the details and secured the location for the Special Board meeting at the Westin.</li> <li>• Maribeth sent letters to the District's vendors (in accordance with the Administrative Code) requesting a list of any gifts given to employees and/or Directors.</li> <li>• Pat has been scheduling meetings for Karl, Keith and Harvey and ordering lunches for several meetings.</li> <li>• Pat formatted and prepared budget letters from Rob to Presidents of Boards and Mayors of Cities in our service area with copies to general managers/directors of public works.</li> <li>• Pat scheduled travel for the ACWA DC Conference, ACWA Federal Affairs and Legislative Committees, Advocacy Trip, GOFA, CUWCC, and other misc. travel and/or workshops, which includes preparation of purchase requisitions and back-up.</li> <li>• Pat scanned and emailed Managers' meeting handouts to our agency managers.</li> </ul>
<b>MWDOC/OCWD Joint Administration</b>	<ul style="list-style-type: none"> <li>• Cathy continues coordination efforts with OCWD regarding joint building remodel costs and upcoming costs on HVAC upgrades, signage and air duct cleaning, as well as estimated costs for next fiscal year.</li> </ul>
<b>Health Benefits</b>	ACWA/JPIA recently announced that The Cadillac Tax has been delayed from 2018 to 2020. This applies to employers of all sizes.
<b>Records Management</b>	<ul style="list-style-type: none"> <li>• Sarah and Pari have been focusing on archival of board packets.</li> <li>• Pari and Sarah completed scanning a batch of Toilet Rebate Files and will continue to scan 1 more batch of old WUE rebate files.</li> <li>• Joe and Leah purged outdated materials from the library.</li> </ul>



<b>Records Management (Continued)</b>	<ul style="list-style-type: none"> <li>• Sarah purged 2 boxes of work files from the library, and worked on CALWARN agreements for Kelly.</li> <li>• Sarah provided assistance in covering phones and admin duties while others were out on vacation.</li> <li>• Katie assisted with review of committee packets to be archived into Laserfiche.</li> <li>• Katie assisted with purging of library materials pertaining to water use efficiency, following review by Joe Berg.</li> </ul>
<b>CalPERS</b>	<ul style="list-style-type: none"> <li>• The Annual CalPERS Valuation Report for the the District's Miscellaneous Classic Plan and the PEPRA Plan was received on December 21 and is attached for information.</li> </ul>
<b>Agency Inquiries</b>	None to report.
<b>Recruitment /Departures</b>	<ul style="list-style-type: none"> <li>• On January 5, Andrew Kanzler joined the Water Use Efficiency Department filling the position of Water Use Efficiency Coordinator.</li> <li>• On January 4, Melissa Baum-Haley began her position with the Planning and Resources Department as the Sr. Water Resources Analyst. Melissa will report to Harvey DeLaTorre. Melissa will be assisting Water Use Efficiency during a transition period.</li> <li>• Interviews have been scheduled for the District Engineer position and it is anticipated the position will be filled by mid-February.</li> <li>• Recruitment efforts are underway for a Public Affairs Intern to replace Marey Gutierrez who left on December 29.</li> <li>• John Goldsby completed his assignment with the District in December for the Finance Department.</li> </ul>
<b>Other</b>	
<b>Projects and Activities</b>	<ul style="list-style-type: none"> <li>• Cathy is continuing to work with the Pacific Design Center to evaluate the upcoming office areas to be renovated (MWDOC lobby and restrooms) and office space planning options.</li> <li>• Cathy coordinated with an appraiser in assessing the District's current office facilities and a report was received.</li> <li>• Katie coordinated the Annual MWDOC Employee Holiday Luncheon which was held on December 15.</li> <li>• Katie is currently researching copier lease options as the lease with the existing copier is nearing the end of the contract.</li> <li>• Cathy participated in interviews for the Sr. Water Resources Analyst position and the Principal Engineer position.</li> <li>• Cathy participated in the staff kick-off meeting regarding the Water Rate Study.</li> </ul>



**INFORMATION ITEM**

January 13, 2015

**TO:** Administration & Finance Committee  
(Directors Thomas, Barbre, Osborne)

**FROM:** Robert J. Hunter, General Manager

Staff Contact: Jeff Stalvey

**SUBJECT:** Finance and IT Pending Items Report

**SUMMARY**

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The following list details the status of special projects that are in-progress or to be completed during FY 2015-16. Highlighted items reflect updates from last month.

Description	% of Completion	Estimated Completion date	Status
<b><u>Finance</u></b>			
Further Implementation of WUE Landscape Programs Databases and Web Site.	On-going	On-going	In Progress
Fiscal Year 2014/15 Annual Audit by Vavrinek, Trine, Day & Company	<b>100%</b>	11/25/15	Final Audit complete
Preparation of documents for FY16-17 budget process.	<b>8%</b>	5/31/16	In Progress
Rate Study RFP	<b>100%</b>	12/16/15	Completed
Rate Study Services – Raftelis	<b>10%</b>	05/01/15	Kick-off Meeting 01/06/15
Morgan Stanley matured. Reinvested \$500k in JPMorgan Chase 2.25%, 4yr Corp Bond	<b>100%</b>	11/02/15	Completed

<b><u>Information Technology</u></b>			
Network security issues (hackers, viruses and spam emails)	On-going	On-going	Continuous system monitoring
Implement and deploy Malware/Spyware Protection for all Workstations	<b>20%</b>	2/28/16	On Hold
Implement and install E-mail Archiver system.	<b>10%</b>	6/30/16	In Progress
Upgrade Exchange E-mail Server to the latest version	<b>10%</b>	6/30/16	In Progress
Virtualize and migrate HR ABRA database Server	<b>30%</b>	02/28/16	In Progress
Upgrade District Desktop Computers to Windows 10	<b>40%</b>	6/30/15	In Progress
Recycle obsolete and non-functional IT Equipment.	<b>100%</b>	2/28/16	In Progress

## FY 2015-16 Completed Special Tasks

Description	% of Completion	Completion date	Status
<b><u>Finance</u></b>			
Step-up from 01/15 called. Reinvested in 2.5yr @ 1.45% and 3yr @ 1.7% CD's.	<b>100%</b>	8/05/15	Completed
BofA CD matured 9/1. Re-invested in Capital One NA 4yr CD at 1.95%	<b>100%</b>	9/2/15	Completed
FHLMC Step from 06/15 called 9/24. Reinvested in Barclay's 4yr @ 1.9% CD.	<b>100%</b>	9/24/15	Completed
Received interest payments of \$10,252 reimbursed for 1997-2001 Brown Act state mandated costs	<b>100%</b>	9/3/15	Completed
Government Compensation in California report	<b>100%</b>	11/30/15	Completed
State Controller Report preparation	<b>100%</b>	11/30/15	Completed
State Tax filing for Water Facilities	<b>100%</b>	11/30/15	Completed
Annual Financial Statement Report	<b>100%</b>	10/23/15	Completed
B of A security matured. Reinvested in Capital One NA 4yr CD at 1.95%. FHLMC Step called. Reinvested in Barclays 4yr CD at 1.90%	<b>100%</b>	9/1/15 9/24/15	Completed

Description	% of Completion	Completion date	Status
<b><u>Information Technology</u></b>			
Purchase and upgrade Finance Check printer	<b>100%</b>	10/1/15	Completed
Purchase and upgrade 13 Desktop Computers with monitors for Staff.	<b>100%</b>	10/1/15	Completed
Purchase and upgrade District Broadband Speed	<b>100%</b>	10/1/15	Completed
Purchase and install Plotter	<b>100%</b>	11/15/15	Completed