

MARINA COAST WATER DISTRICT

11 RESERVATION ROAD, MARINA, CA 93933-2099 Home Page: www.mcwd.org TEL: (831) 384-6131 FAX: (831) 883-5995 DIRECTORS

THOMAS P. MOORE

President

JAN SHRINER Vice President

HERBERT CORTEZ MATT ZEFFERMAN PETER LE

Agenda Regular Board Meeting, Board of Directors Marina Coast Water District and

Regular Board Meeting, Board of Directors

Marina Coast Water District Groundwater Sustainability Agency

Marina Council Chambers 211 Hillcrest Avenue, Marina, California Monday, December 17, 2018, 6:30 p.m. PST

This meeting has been noticed according to the Brown Act rules. The Board of Directors meet regularly on the third Monday of each month with workshops scheduled for the first Monday of some months. The meetings normally begin at 6:30 p.m. and are held at the City of Marina Council Chambers at 211 Hillcrest Avenue, Marina, California.

Our Mission: We provide our customers with high quality water, wastewater collection and conservation services at a reasonable cost, through planning, management and the development of water resources in an environmentally sensitive manner.

1. Call to Order

2. Administer Oath of Office

Action: The Oath of Office will be administered to Jan Shriner, Matt Zefferman, and Peter Le so they can serve as Directors to the Marina Coast Water District Board.

3. Roll Call

4. Election of Board President and Vice-President

Action: The Board will elect two Directors to serve as President and Vice-President of the Board until December 2019.

5. Public Comment on Closed Session Items Anyone wishing to address the Board on matters appearing on Closed Session may do so at this time. Please limit your comment to four minutes. The public may comment on any other items listed on the agenda at the time they are considered by the Board.

This agenda is subject to revision and may be amended prior to the scheduled meeting. Pursuant to Government Code section 54954.2(a)(1), the agenda for each meeting of the Board shall be posted at the City of Marina Council Chambers. The agenda shall also be posted at the following locations but those locations are not official agenda posting locations for purposes of section 54954.2(a)(1): District offices at 11 Reservation Road, Seaside City Hall, the City of Marina Library, and the City of Seaside Library. A complete Board packet containing all enclosures and staff materials will be available for public review on Thursday, December 13, 2018. Copies will also be available at the Board meeting. Information about items on this agenda or persons requesting disability related modifications and/or accommodations should contact the Board Clerk 48 hours prior to the meeting at: 831-883-5910.

6. Closed Session

- A. Pursuant to Government Code 54956.9

 Conference with Legal Counsel Existing Litigation
 - Ag Land Trust v. Marina Coast Water District, Monterey County Superior Court Case No. M105019; Sixth Appellate District Court of Appeals Case Nos. H038550 and H039559
 - 2) In the Matter of the Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates, California Public Utilities Commission No. A.12-04-019 & A.13-05-017 Settlement Agreement
 - 3) Marina Coast Water District v. California Public Utilities Commission, California Supreme Court Case No. S230728, Writ of Review
 - 4) California-American Water Company vs Marina Coast Water District; Monterey County Water Resources Agency; and Does 1 through 10, San Francisco Superior Court Case No. CGC-13-528312 (Complaint for Declaratory Relief); First Appellate District Court of Appeals Case Nos. A145604, A146166, A146405
 - Marina Coast Water District vs California-American Water Company, Monterey County Water Resources Agency; and, California-American Water Company, Monterey County Water Resources Agency vs Marina Coast Water District, San Francisco Superior Court Case Nos. CGC-15-547125, CGC-15-546632 (Complaint for Breach of Warranties, etc.)
 - 6) Marina Coast Water District v, California Coastal Commission (California-American Water Company, Real Party in Interest), Santa Cruz County Superior Court Case No. 15CV00267
- 7) Bay View Community DE, LLC; Bryan Taylor; Greg Carter; and Brooke Bilyeu vs Marina Coast Water District; Board of Directors of Marina Coast Water District; County of Monterey and Does 1-25, inclusive, Monterey County Superior Court Case No. 18CV000765 (Petition for Writ of Mandate or Administrative Mandate, and Complaint for Declaratory and Injunctive Relief and Breach of Contract)
- 8) Marina Coast Water District, and Does 1-100 v, County of Monterey, County of Monterey Health Department Environmental Health Bureau, and Does 101-110, Monterey County Superior Court Case No. 18CV000816 (Petition for Writ of Mandate and Complaint for Injunctive Relief)

7:00 p.m. Reconvene Open Session

7. Reportable Actions Taken During Closed Session The Board will announce any reportable action taken during closed session and the vote or abstention on that action of every director present, and may take additional action in open session as appropriate. Any closed session items not completed may be continued to after the end of all open session items.

8. Pledge of Allegiance

9. Oral Communications Anyone wishing to address the Board on matters not appearing on the Agenda may do so at this time. Please limit your comment to four minutes. The public may comment on any other items listed on the agenda at the time they are considered by the Board.

10. Presentations

- A. Consider Adoption of Resolution No. 2018-66 in Recognition of Jose Rodriguez, System Operator II, for 15 Years of Service to the Marina Coast Water District Action: The Board will consider adopting Resolution No. 2018-66 recognizing Jose Rodriguez, System Operator II, and awarding him a plaque and gift certificate for fifteen years of service to the Marina Coast Water District.
- B. Consider Adoption of Resolution No. 2018-67 to Recognize Howard Gustafson for 14 Years of Outstanding and Dedicated Service as a Director to the Marina Coast Water District

 Action: The Board will consider adopting Resolution No. 2018-67 recognizing Howard Gustafson for fourteen years of outstanding and dedicated service as a Director to the Marina Coast Water District.
- C. Consider Adoption of Resolution No. 2018-68 to Recognize William Y. Lee for 12 Years of Outstanding and Dedicated Service as a Director to the Marina Coast Water District
 Action: The Board will consider adopting Resolution No. 2018-68 recognizing William Y. Lee for twelve years of outstanding and dedicated service as a Director to the Marina Coast Water District.

11. Consent Calendar

- A. Receive and File the Check Register for the Month of November 2018
- B. Receive the Quarterly Financial Statements for April 1, 2018 to June 30, 2018
- C. Approve the Draft Minutes of the Joint Board/GSA Meeting of November 19, 2018
- D. Receive the Validated 2017 Water Loss Audit Report and Level 1 Validation Document
- E. Receive Response to Marina Coast Water District Board Request for a Listing of Developer Account Balances Written Off by the District
- F. Consider Approving the Proposed Regular Board/GSA Meeting and Workshop Meeting Schedule for 2019

- **12. Action Items** The Board will review and discuss agenda items and take action or direct staff to return to the Board for action at a following meeting. The public may address the Board on these Items as each item is reviewed by the Board. Please limit your comment to four minutes.
 - A. Consider Appointments of Five Public Members to the Water Conservation Commission

Action: The Board of Directors will consider appointing five public members to the Water Conservation Commission.

- B. Consider Accepting the Comprehensive Annual Financial Report and the Independent Auditor's Report for the Fiscal Year ended June 30, 2018

 Action: The Board of Directors will consider accepting the Comprehensive Annual Financial Report and the Independent Auditor's Report for the fiscal year ended June 30, 2017.
- C. Consider Adopting Resolution No. 2018-69 Approving an Amendment to the On-Call Engineering Services Agreement with Harris & Associates for Ongoing Construction Support Services to the East Garrison Development Project Action: The Board of Directors will consider amending the On-Call Professional Services Agreement with Harris & Associates for Inspection and Construction Support Services for the East Garrison Development Projects.
- D. Consider Approving the District's 2018 Year in Review

Action: The Board of Directors will consider approving the District's 2018 Year in Review.

E. Receive the Draft District FY 2019-2020 Budget Schedule and Set Date for the 2019-2020 Budget Workshop

Action: The Board of Directors will receive the draft FY 2019-2020 budget schedule and set a date for the 2019-2020 budget workshop.

F. Consider Director Appointments to Standing Committees of the Board and to Outside Agencies for 2019, and as negotiators to any Ad Hoc Committees of the Board

Action: The Board of Directors will consider appointing Directors to Standing Committees of the Board and to Outside Agencies for 2019, and as negotiators to any Ad Hoc Committees of the Board.

13. Staff Report

- A. Water, Sewer, and Recycled Water Master Plan and Capacity Fee Schedule
- **14. Informational Items** Informational items are normally provided in the form of a written report or verbal update and may not require Board action. The public may address the Board on Informational Items as they are considered by the Board. Please limit your comments to four minutes.

- A. General Manager's Report
- B. Counsel's Report
- C. Committee and Board Liaison Reports
 - 1. Water Conservation Commission
 - 2. Joint City-District Committee
 - 3. Executive Committee
 - 4. Community Outreach Committee
 - 5. Budget and Personnel Committee
 - 6. M1W Board Member Liaison
- 7. LAFCO Liaison
- 8. FORA
- 9. WWOC Report
- 10.JPIA Liaison
- 11. Special Districts Association
- 12. SVBGSA Liaison (Steering Committee)

15. Board Member Requests for Future Agenda Items

16. Director's Comments Director reports on meetings with other agencies, organizations and individuals on behalf of the District and on official District matters.

17. Adjournment Set or Announce Next Meeting(s), date(s), time(s), and location(s):

Special Meeting: Monday, January 14, 2019, 6:30 p.m.,

Marina Council Chambers, 211 Hillcrest Avenue, Marina

Regular Meeting: Tuesday, January 22, 2019, 6:30 p.m.,

Marina Council Chambers, 211 Hillcrest Avenue, Marina

Agenda Item: 2			Meeting Date: Decem	ber 17, 2018
Prepared By: Paula R	iso		Approved By: Keith	Van Der Maaten
Agenda Title: Admini	ster Oath of Office			
Staff Recommendation Le.	n: Administer the oath of	f office to Ja	n Shriner, Matt Zeffer	rman, and Peter
wastewater collection	Strategic Plan, Mission and conservation ser evelopment of water reso	vices at a	reasonable cost, thre	ough planning,
are to be sworn in to	In accordance with the N begin serving new four, Matt Zefferman, and Pe	-year terms	as members of the D	istrict Board of
Constitution of the all enemies, fore Constitution of the take this obligation that I will well are	, do solemnly swear ne United States and the Carign and domestic; that the United States and the con freely, without any mand faithfully discharge the Compliance: None requ	Constitution I will bear Constitution ental reserve te duties upo	of the State of Californ true faith and allegian of the State of Califor ation or purpose of evo	nia against nce to the mia; that I asion; and
	Yes X N		g Source/Recap: None	<u>.</u>
Other Considerations:		io i unum	g Source/Recap. Ivone	,
Material Included for I	nformation/Consideration	on: None.		
Action Required:	Resolution	Motion	Review	X Oath
	Board	d Action		
Motion By	Seconded By		No Action Taken_	
Ayes		Abstair	ned	
Noes		Absent	;	

Agenda Item: 4	Meeting Date: December 17, 2018
Prepared By: Paula Riso	Approved By: Keith Van Der Maaten
Agenda Title: Election of Board President and Vice-President	esident
Staff Recommendation: The Board of Directors elect a next 1-year term.	President and Vice-President to serve the
Background: 5-Year Strategic Plan, Mission Statem wastewater collection and conservation services at management and the development of water resources in	a reasonable cost, through planning,
Discussion/Analysis: The Board Procedures Manual las	st revised on July 5, 2016 states in part:
"The Board of Directors shall have a President among the five directors. The President shall be December but not before any newly elected or office. No Director shall serve more than three (If a majority of the directors cannot agree on who the existing President shall remain President until "The Board of Directors shall have a Vice-President from among the five directors at the sam The Vice-President shall be elected annually in before any newly elected or reelected director(s) policy to rotate the office of Vice-President among no director shall serve more than three (3) conset a majority of the directors cannot agree on who then the existing Vice President shall continue resolved."	e elected annually in the month of relected director(s) have taken (3) consecutive years as President. It is should be the new President, then if the issue can be resolved." Sident who shall be elected by the set time as the President is elected. In the month of December but not have taken office. It is the Board's ng the Board members. However, ecutive years as Vice President. If should be the new Vice President,
Environmental Review Compliance: None required.	
Financial Impact: Yes X No Fur	nding Source/Recap: None
Other Considerations: None.	
Material Included for Information/Consideration: Nor	ne.
Action Required:ResolutionXMo	otionReview
Board Action	

Ayes_____ Abstained_____ Noes____ Absent____

Motion By_____ Seconded By_____ No Action Taken_____

Agenda Item: 10-A Meeting Date: December 17, 2018

Prepared By: Derek Cray Approved By: Keith Van Der Maaten

Agenda Title: Consider Adoption of Resolution No. 2018-66 in Recognition of Jose Rodriguez,

System Operator II, for 15 Years of Service to the Marina Coast Water District

Staff Recommendation: Staff recommends the Board of Directors adopt Resolution No. 2018-66 in recognition of Jose Rodriquez for 15 years of service with MCWD and awarding a plaque and gift certificate.

Background: 5-Year Strategic Plan – Our objective is to recruit and retain a highly qualified, diverse and inspired workforce that delivers the essential services of our mission statement to the public while providing outstanding customer service. Our strategy is to utilize sound policies and personnel practices, offer competitive compensation and benefits, and provide opportunities for training, development, and professional growth while ensuring a safe and secure workplace.

Discussion/Analysis: Jose Rodriguez started with Marina Coast Water District (District) on November 17, 2003, as a Collections System Operator. During his time as a Collections System Operator, Jose was responsible for maintaining the District's sewer lines. Some of his duties included: hydro-cleaning and closed-circuit television of sewer lines, operating and maintaining the District's sewer lift stations and making pipeline repairs to sewer mains.

In 2006, Jose began a source control monitoring and enforcement program for the District. This program helps prevent sewer failures caused by Fats, Oil, and Grease (FOG) stemming from local businesses through means of proactive enforcement. Jose's position requires him to effectively communicate with the public and business owners to educate them on the importance of eliminating FOG within our sewer systems.

In 2012, the District combined the water and sewer departments and at that time, Jose was reclassified as a System Operator II. Jose then immediately began obtaining his certifications in water and cross training to learn both systems. Currently, Jose has the following certifications:

- Grade 2 Wastewater Collections through the California Water Environmental Association (CWEA)
- D3 Water Distribution Operator through the California Waterboards
- T2 Water Treatment Plant Operator through the California Waterboards
- CCTV certification through National Association of Sewer Service Companies (NASSCO)

Jose's positive attitude and work ethic resonate throughout the department and help establish a positive, energetic work environment. Jose has been a valuable employee of the District and it is a pleasure to recognize Jose's 15 years with the District.

Environmental Review Compliance: None required.

Financial Impact: 2 Awards account numbers.	Yes	No	Funding	Source/Recap:	Hospitality	and
Other Considerations: Non	ie					
Material Included for Info	rmation/Consid	eration:	Resolution 1	No. 2018-66.		
Action Required: 2 (Roll call vote is required.)		ı	Motion	Rev	view	
		Board A	action			
Motion By	Seconded	l By		No Action Take	n	
Ayes			Abstained	d		
Noes			Absent			

December 17, 2018

Resolution No. 2018-66
Resolution of the Board of Directors
Marina Coast Water District
Recognizing Jose Rodriguez, System Operator II,
For 15-Years of Service to MCWD

RESOLVED by the Board of Directors ("Directors") of the Marina Coast Water District ("District"), at a regular meeting duly called and held on December 17, 2018 at 211 Hillcrest Avenue, Marina, California as follows:

WHEREAS, Jose Rodriguez joined the District on November 17, 2003 as a Collection System Operator; and,

WHEREAS, Jose was instrumental in creating and still currently manages the District's source control monitoring and enforcement program, which helps prevent sewer failures caused by Fats, Oil, and Grease (FOG); and,

WHEREAS, in 2012, the District combined the Water and Wastewater departments into one, and Jose was reclassified as a System Operator II; and,

WHEREAS, Jose actively sought out State certifications and currently holds a Grade 2 CWEA Collections System Maintenance, D3 Water Distribution Operator, T2 Water Treatment Plant Operator and a Wastewater CCTV certification through NASSCO; and,

WHEREAS, Jose's certifications and experience are crucial in maintaining safe potable water and uninterrupted sewer systems for the District's customers; and,

WHEREAS, Jose's attitude and work ethic help establish a positive, and energetic work environment within the Operations and Maintenance Department.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Marina Coast Water District does hereby recognize and appreciate Jose Rodriguez for fifteen years of service to the Marina Coast Water District, and presents him with a plaque and gift certificate, and wishes him continued success with the District.

PASSED AND ADOPTED on December 17, 2018, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes:	Directors
Noes:	Directors
Absent:	Directors
Abstained:	Directors

	, President
ATTEST:	
Keith Van Der Maaten, Secretary	
CERTIFICATE OF SECI	RETARY
The undersigned Secretary of the Board of the Mathat the foregoing is a full, true and correct copy of Res 17, 2018.	•
	Keith Van Der Maaten, Secretary

Agenda Item: 10-B Meeting Date: December 17, 2018

Prepared By: Paula Riso Approved By: Keith Van Der Maaten

Agenda Title: Consider Adoption of Resolution No. 2018-67 to Recognize Howard Gustafson for

14 Years of Outstanding and Dedicated Service as Director to the Marina Coast

Water District

Staff Recommendation: The Board of Directors consider adopting Resolution No. 2018-67 recognizing Howard Gustafson for 14 years of outstanding and dedicated service as Director to the Marina Coast Water District.

Background: 5-Year Strategic Plan Mission Statement — We provide our customers with high quality water, wastewater collection and conservation services at a reasonable cost, through planning, management and the development of water resources in an environmentally sensitive manner.

Discussion/Analysis: The Board of Directors would like to present a plaque expressing its appreciation to Howard Gustafson for his unselfish commitment and dedication as a Director on the Marina Coast Water District Board for the past 14 years. His strong leadership in support of the mission and policy governance of the District served as a superior example to others and enabled him to make significant contributions to the many achievements of the District during his tenure on the Marina Coast Water District Board of Directors.

During Howard Gustafson's tenure as a member of the Board of Directors, the District positioned itself well with land purchases such as the Armstrong Ranch; was involved in a land transfer with the City of Seaside; completed a Airborne Electromagnetic Survey on the Hydrostratigraphy and Water Quality in the Nothern Salinas Valley; moved forward with the RUWAP project; and showed great initiative, perseverance, and commitment with the water crisis and conservation.

Howard Gustafson contributed significantly to the District and to the Board of Directors by serving as a director on the Joint City-District Committee, Budget and Personnel Committee, Community Outreach Committee; Special Districts Association, Monterey One Water, Executive Committee, the SCSD Annexation Ad Hoc Committee; and, the SVBGSA Ad Hoc Committee. He also served as District Board Vice President in 2006, 2012, and Board President in 2007, 2008, 2009, 2015, 2016, and 2017.

Environmental Review Compliance: None required	1.
Financial Impact: X YesNo and Awards account numbers.	Funding Source/Recap: Hospitality
Material Included for Information/Consideration:	Resolution No. 2018-67.
Action Required: X Resolution (Roll call vote is required.)	MotionReview

	Board Act	ion	
Motion By	Seconded By	No Action Taken	
Ayes		Abstained	
Noes		Absent	

December 17, 2018

Resolution No. 2018 - 67
Resolution of the Board of Directors
Marina Coast Water District
Recognizing Howard Gustafson for 14 Years of
Outstansing and Dedicated Services as Director
to the Marina Coast Water District

RESOLVED by the Board of Directors ("Directors") of the Marina Coast Water District ("District"), at a regular meeting duly called and held on December 17, 2018 at 211 Hillcrest Avenue, Marina, California as follows:

WHEREAS, Howard Gustafson served as a Director on the Marina Coast Water District Board from 2004 to 2018; and,

WHEREAS, Howard Gustafson's strong leadership in support of the mission and policy governance of the District served as a superior example to others and enabled him to make significant contributions to the many achievements of the District during his tenure on the Board; and,

WHEREAS, Howard Gustafson contributed significantly to the District and to the Board of Directors by serving as a director on the Joint City-District Committee, Budget and Personnel Committee, Community Outreach Committee; Special Districts Association, Monterey One Water, Executive Committee, the SCSD Annexation Ad Hoc Committee; and, the SVBGSA Ad Hoc Committee; and,

WHEREAS, Howard Gustafson also served as District Board Vice President in 2006, 2012, and Board President in 2007, 2008, 2009, 2015, 2016, and 2017.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the District does hereby express its gratitude and commend Howard Gustafson for outstanding leadership and dedicated service to the District during his 14 years on the Board; and,

RESOLVED FURTHER, the District wishes Howard Gustafson continued professional and personal success as he leaves the District.

PASSED AND ADOPTED on December 17, 2018, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes:	Directors_
Nooge	Dinactors
Noes:	Directors
Absent:	Directors
Abstained:	Directors

ATTEST:	, President
Keith Van Der Maaten, Secretary	
CEF	RTIFICATE OF SECRETARY
	of the Board of the Marina Coast Water District hereby certifies d correct copy of Resolution No. 2018-67 adopted December
	Keith Van Der Maaten, Secretary

Agenda Item:	10-C	Meeting Date: December 17, 2018
Prepared By:	Paula Riso	Approved By: Keith Van Der Maaten
Agenda Title:	<u> •</u>	18-68 to Recognize William Y. Lee for 12 vice as Director to the Marina Coast Water
recognizing W		sider adopting Resolution No. 2018-68 tanding and dedicated service as Director
quality water,	wastewater collection and conservation	t – We provide our customers with high a services at a reasonable cost, through resources in an environmentally sensitive
his unselfish c for the past 12 District served	ommitment and dedication as a Director of years. His strong leadership in support of as a superior example to others and enable chievements of the District during his te	e to express its appreciation to Bill Lee for on the Marina Coast Water District Board of the mission and policy governance of the oled him to make significant contributions nure on the Marina Coast Water District
During Bill Lee's tenure as a member of the Board of Directors, the District positioned itself well with land purchases such as the Armstrong Ranch; was involved in a land transfer with the City of Seaside; completed a Airborne Electromagnetic Survey on the Hydrostratigraphy and Water Quality in the Nothern Salinas Valley; moved forward with the RUWAP project; and showed great initiative, perseverance, and commitment with the water crisis and conservation.		
director on eve	•	o the Board of Directors by serving as a er as a primary or alternate member. He 10, 2014, and Board President in 2011.
Environmenta	l Review Compliance: None required.	
Financial Impa and Awards ac	act: X YesNo count numbers.	Funding Source/Recap: Hospitality
Material Inclu	ded for Information/Consideration: Res	solution No. 2018-68.

X Resolution Motion

____Review

Action Required: X (Roll call vote is required.)

	Board Act	ion	
Motion By	Seconded By	No Action Taken	
Ayes		Abstained	
Noes		Absent	

December 17, 2018

Resolution No. 2018 - 68
Resolution of the Board of Directors
Marina Coast Water District
Recognizing William Y. Lee for 12 Years of
Outstansing and Dedicated Services as Director
to the Marina Coast Water District

RESOLVED by the Board of Directors ("Directors") of the Marina Coast Water District ("District"), at a regular meeting duly called and held on December 17, 2018 at 211 Hillcrest Avenue, Marina, California as follows:

WHEREAS, William "Bill" Y. Lee served as a Director on the Marina Coast Water District Board from 2006 to 2018; and,

WHEREAS, Bill Lee's strong leadership in support of the mission and policy governance of the District served as a superior example to others and enabled him to make significant contributions to the many achievements of the District during his tenure on the Board; and,

WHEREAS, Bill Lee contributed significantly to the District and to the Board of Directors by serving as a director every Standing Committee of the Board, either as a primary or alternate member; and,

WHEREAS, Bill Lee also served as District Board Vice President in 2009, 2010, 2014, and Board President in 2011.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the District does hereby express its gratitude and commend Bill Lee for outstanding leadership and dedicated service to the District during his 12 years on the Board; and,

RESOLVED FURTHER, the District wishes Bill Lee continued professional and personal success as he leaves the District.

PASSED AND ADOPTED on December 17, 2018, by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes:	Directors_
Noes:	Directors
Absent:	Directors
Abstained:	Directors

, President

ATTEST:	
Keith Van Der Maaten, Secretary	
CERTIFICATE OF S	<u>ECRETARY</u>
The undersigned Secretary of the Board of the that the foregoing is a full, true and correct copy of 17, 2018.	· · · · · · · · · · · · · · · · · · ·
	Keith Van Der Maaten, Secretary

Agenda Item:	11			Meeti	ng Date: Decen	nber 17, 2018
Prepared By:	Paula Riso			Appro	oved By: Keith	Van Der Maaten
Agenda Title: (Consent Cale	ndar				
Staff Recomme	endation: The	Board of Directo	rs appr	ove the Cons	ent Calendar as	s presented.
quality water,	wastewater c	ric Plan Mission collection and co the development	nservat	ion services	at a reasonab	_
Consent calend	ar consisting	of:				
B) Receive C) Approve D) Receive E) Receive Account	the Quarterly e the Draft M the Validated Response to t Balances W	Check Register for Financial Stater inutes of the Join d 2017 Water Los Marina Coast Waritten Off by the lad Regular Board/	nents fo t Board ss Audi ter Dist District	or April 1 , 20 /GSA Meeting t Report and rict Board Re	018 to June 30, ng of Novembe Level 1 Validat equest for a List	r 19, 2018 tion Document ing of Developer
Discussion/Ana	alysis: See in	dividual transmit	tals.			
Environmental	Review Com	pliance: None re	quired.			
Other Consider them separately			s can a _l	oprove these	items together	or they can pull
		nation/Considerat ninutes of Novem				2018; Quarterly and validation.
Action Require (Roll call vote i		_Resolution _	X	Motion	Revie	W
		Boa	rd Acti	on		
Motion By		Seconded By		No	Action Taken_	
Ayes			1	Abstained		
. .				. 1		

Agenda Item:	11-A	Meeting Date: December 17, 2018
Prepared By:	Kelly Cadiente	Approved By: Keith Van Der Maaten
Agenda Title:	Receive and File the Check Register for the	ne Month of November 2018
Staff Recommendation totaling \$2,51	nendation: The Board of Directors receive a 3,023.61.	and file the November 2018 expenditures
assure financi Our fiscal stre	5-Year Strategic Plan, Objective No. 3 — Orial stability, prudent rate management and ategy is to forecast, control and optimize is anner. We will efficiently use our financial ture demands.	d demonstrate responsible stewardship. ncome and expenditures in an open and
	nalysis: These expenditures were paid in No file the check register.	ovember 2018 and the Board is requested
Environmenta	l Review Compliance: None required.	
allocated acro	act: Yes X No Fundaments of States o	
Other Conside	eration: None.	
Material Inclu	ded for Information/Consideration: Novem	nber 2018 Summary Check Register.
Action Requir (Roll call vote		otionReview
	Board Action	
Motion By	Seconded By	No Action Taken
Ayes	Abst	tained
Noes	Abso	ent

NOVEMBER 2018 SUMMARY CHECK REGISTER

DATE	CHECK#	CHECK DESCRIPTION	AMOUNT
_			_
11/01/2018	66805 - 68885	Check Register	464,879.12
11/08/2018	68886 - 68889	Check Register	8,547.87
11/14/2018	WIRE	Mountain Cascade, Inc.	522,144.51
11/19/2018	66890 - 66940	Check Register	199,036.99
11/20/2018	WIRE	Union Bank of California	702,394.07
11/02/2018	500123 - 500127	Payroll Checks and Direct Deposit	102,175.39
11/02/2018	500128 - 500129	Payroll Withholdings, Period Ended 10/26/18	1,143.23
11/02/2018	ACH	MassMutual Retirement Services, LLC	8,115.36
11/02/2018	ACH	State of California - EDD	9,363.36
11/02/2018	ACH	Internal Revenue Service	40,377.26
11/02/2018	ACH	CalPERS	22,461.99
11/02/2018	500130 - 500139	Check Register	6,810.22
11/16/2018	500140 - 500144	Payroll Checks and Direct Deposit	100,890.60
11/16/2018	500145	Payroll Withholdings, Period Ended 11/09/18	544.23
11/16/2018	ACH	MassMutual Retirement Services, LLC	8,115.36
11/16/2018	ACH	Internal Revenue Service	37,617.26
11/16/2018	ACH	State of California - EDD	8,892.67
11/16/2018	ACH	CalPERS	22,462.02
11/19/2018	500146 - 500151	Check Register	66,308.78
11/30/2018	500152 - 500156	Payroll Checks and Direct Deposit	102,168.74
11/30/2018	500157	Payroll Withholdings, Period Ended 11/23/18	544.23
11/30/2018	ACH	CalPERS	22,244.17
11/30/2018	ACH	Internal Revenue Service	38,591.29
11/30/2018	ACH	State of California - EDD	9,079.53
11/30/2018	ACH	MassMutual Retirement Services, LLC	8,115.36
		TOTAL DISBURSEMENTS	2,513,023.61

Check	Invoice	Check			
No	Date	Date	Vendor Name	Description	Amount
66805	10/10/2018	11/01/2018	Monterey Pen Unified Sch Dist	Conservation Education 08/2018	2,387.66
66806	10/26/2018	11/01/2018	Insight Planners	Web Development/ Maintenance, Hosting 10/2018	756.00
66807	10/19/2018	11/01/2018	Fisher Scientific	SporAmpule Biological Indicator	110.01
66808	10/12/2018	11/01/2018	Grainger	Peristaltic Pump	297.11
66809	10/23/2018	11/01/2018	Jane's Answering Service	Answering Service 09/26 - 10/23	206.20
				Staff Meetings, Water Demand Rates - Commercial, Consolidating CIP	
				List - CSUMB, Master Plan Review, Developers (East Garrison, Estate -	
66810	09/30/2018	11/01/2018	Schaaf & Wheeler	Sea Haven, Main Gate WSA) 09/2018	5,607.10
66811	10/11/2018	11/01/2018	Hopkins Technical Products, Inc.	CL2 Pump - Wells 29, 30, 34, 31, Watkins Gate	8,098.57
66812	10/12/2018	11/01/2018	Environmental Resource Associates	External Quality Control/ Performance Testing Samples	1,383.81
66813	10/18/2018	11/01/2018	Verizon Wireless	Cell Phone Service 10/2018	1,078.78
				Developer Inspection Services (East Garrison, CSUMB Academic III,	
66814	10/10/2018	11/01/2018	Harris & Associates	Dunes) 09/2018	31,520.00
66815	10/19/2018	11/01/2018	Orkin Pest Control	BLM/ IOP Pest Control 10/2018	191.00
66816	10/19/2018	11/01/2018	Federal Express	Shipping Charges	107.12
66817	10/16/2018	11/01/2018	Conservation Rebate Program	Bay View Community - (8) Toilet Rebates	854.00
				RUWAP - Design Plans and Specifications, Bid Services, Project	
				Management, Construction Meetings, Submittal Review, Design	
66818	10/11/2018	11/01/2018	Carollo Engineers, Inc.	Clarifications, Project Administration	54,004.37
66819	10/03/2018	11/01/2018	Fastenal Industrial & Construction Supplies	Janitorial Supplies	95.61
66820	10/28/2018	11/01/2018	O'Reilly Automotive Stores, Inc.	Auto/ General Supplies	252.55
66821	10/18/2018	11/01/2018	Associated Services Company	Coffee Supplies	139.64
66822	10/15/2018	11/01/2018	Sabre Backflow, LLC	Calibrate Backflow Tester	119.60
66823	10/15/2018	11/01/2018	Conservation Rebate Program	3114 Bayer St - Hot Water Recirculation Pump Rebate	184.98
66824	10/16/2018	11/01/2018	Conservation Rebate Program	274 Carmel Ave #L - Toilet Rebate	89.99
66825	10/17/2018	11/01/2018	Univar USA, Inc.	800 gal Sodium Hypochlorite - Intermediate Tank System	1,600.06
66826	10/12/2018	11/01/2018	Quinzon Passey & Associates LLC	Rolling Seal - ARI Valves	316.51
66827	10/19/2018	11/01/2018	Burlingame Engineers, Inc.	2" Fittings - Well 10 Hypochlorite Tank	1,119.58
66828	10/16/2018	11/01/2018	Conservation Rebate Program	13118 Chamberlain Ave - Washer Rebate	100.00
66829	10/16/2018	11/01/2018	Conservation Rebate Program	3295 1/2 Abdy Way - (2) Toilet Rebates	169.98
66830	07/31/2018	11/01/2018	Del Monte Glass	Motorized Window Repair - BLM	232.50
66831	10/24/2018	11/01/2018	Conservation Rebate Program	136 Belle Dr - Washer Rebate	100.00
66832	10/24/2018	11/01/2018	Conservation Rebate Program	1418 Simpson Ct - (2) Toilet Rebates	250.00
66833	10/22/2018	11/01/2018	ArchiveSocial	Archive Services 11/2018 - 06/2019	1,592.00
66834	10/31/2018	11/01/2018	Conservation Rebate Program	3124 Shoemaker Pl - Washer Rebate	50.00
			-	PVC/ Fittings, Couplers, 2" Gaskets, Tank Adapter - Intermediate	
66835			Green Rubber-Kennedy AG, LP	Hypochlorite Tank System	498.68
66836	10/13/2018	11/01/2018	Graniterock Company	Cold Mix - Yard Stock	725.79

Check	Invoice	Check			
No	Date	Date	Vendor Name	Description	Amount
				Advertisement - Associate Engineer, Deposit Books - Customer Service/	
				Accounting, Wifi Temperature Humidity Sensor - Server Room, Cloud	
				Hosted Server - CityWorks/ ESRI, EIN Number Signs - Diesel Vehicles,	
				Training: 2019 Legislative Update for Public Agencies Webinar (Gill),	
66837	10/08/2018	11/01/2018	U.S. Bank Corporate Payment Systems	General Supplies	5,005.22
66838	10/15/2018	11/01/2018	Friedman & Springwater LLP	CalAM Coastal Water Project, Ag Land Trust CEQA Lawsuit 09/2018	112,755.01
66839	10/09/2018	11/01/2018	Richards, Watson & Gershon	Regional Project Litigation 09/2018	16,667.91
66840	10/08/2018	11/01/2018	Remy Moose Manley, LLP	Annexation, RAMCO Well, CPUC, Well Project 09/2018	55,180.40
66841	10/30/2018	11/01/2018	Monterey Bay Technologies, Inc.	(3) Dell Optiplex 7060 Computers, IT Support Services 11/2018	8,501.67
66842	10/31/2018	11/01/2018	Corix Water Products	Repair Parts - 2" Service Line Break at CSUMB, Check Valve - Well 11	468.93
66843	10/30/2018	11/01/2018	Eurofins Eaton Analytical, Inc.	Lab Water - Total Organic Carbon and Organic Nitrogen	100.00
66844	10/05/2018	11/01/2018	The Pun Group, LLP	2018 Audit - 1st Progress Billing	20,000.00
			1,	General Matters, Annexation, Bay View Mobile Home Park, CEMEX	,
				Property, CPUC Proceedings, CSUMB, FORA, Groundwater, GWR	
				Project - Seaside Basin, Procurement - Review PSA for Imjin Parkway	
				LS, RAMCO Lawsuit, Regional Desalination Project, Shea Homes,	
66845	10/12/2018	11/01/2018	Griffith & Masuda	Developer - (Wathens-Castanos Homes, Campus Town Project) 09/2018	28,893.72
66846	10/31/2018	11/01/2018	Conservation Rebate Program	3106 Crescent Ave #4 - Toilet Rebate	125.00
66847	10/23/2018	11/01/2018	Dataflow Business Systems, Inc.	Ord Copier Maintenance (5551ci) 09/23 - 10/22	361.16
66848	10/22/2018	11/01/2018	AT&T	Ord Alarm, Modem Line 10/2018	102.62
66849	09/30/2018	11/01/2018	Runyon Saltzman Einhorn, Inc.	Public Relations	5,407.98
66850	10/17/2018	11/01/2018	EKI Environment & Water Inc.	Groundwater Planning Sustainability Study	6,001.84
66851	10/09/2018	11/01/2018	Akel Engineering Group, Inc.	Master Plans/Capacity Fees Study - Water, Sewer, Recycled Water	9,725.00
66852	10/15/2018	11/01/2018	R&B Company	Supplies - Meter Readers	452.93
66853	10/03/2018	11/01/2018	MWH Constructors Inc.	Construction Management Services	71,152.25
66854	10/31/2018	11/01/2018	Conservation Rebate Program	3014 King Cir - Toilet Rebate	125.00
66855	10/17/2018	11/01/2018	Ferguson Enterprises, Inc #686	Cla Val Parts - Marina Booster	3,996.57
66856	10/20/2018	11/01/2018	Culligan Water Enterprises	Water Softener - Wells 10, 11, F Booster	265.48
66857	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 3300 Steven Ct	14.78
66858	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 13117 Chamberlain Ave	318.73
66859	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 13129 Chamberlain Ave	142.22
66860	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 14530 Lee Ave	89.56
66861	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 3229 Melanie Rd	25.14
66862	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 191 Debbie Rd	13.56
66863	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 3281 Steven Ct	74.92
66864	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 13137 Chamberlain Ave	163.99
66865	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 16734 Pickett Lane	142.22
66866	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 4380 Shoreline Ct	39.23
66867	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - Hydrant Meter	1,603.92
66868	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 16910 Mahone St	10.40

Check	Invoice	Check			
No	Date	Date	Vendor Name	Description	Amount
66869	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 310 Ardennes Cir	20.80
66870	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - Irrigation (Dunes Model Homes)	1,041.25
66871	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 16722 Pickett Ln	117.73
66872	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 18531 Mc Clellan Cir	86.10
66873			Customer Service Refund	Refund Check - 234 Metz Rd	25.54
66874	10/24/2018		Customer Service Refund	Refund Check - 300 Malmedy Rd	35.00
66875	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 18679 Mc Clellan Cir	73.23
66876	10/24/2018		Customer Service Refund	Refund Check - 171 Linde Cir	27.00
66877	10/24/2018		Customer Service Refund	Refund Check - 3180 Ninole Dr	16.51
66878	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 14705 Kit Carson Dr	225.97
66879	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 18691 Mc Clellan Cir	154.88
66880	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 313 Arloncourt Rd	64.25
66881	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 410 Radden Rd	35.00
66882	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 301 9th St #215-C	113.00
66883	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 3134 Lake Dr	88.38
66884	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 3152 A Lake Dr	32.02
66885	10/24/2018	11/01/2018	Customer Service Refund	Refund Check - 3055 Bostick Ave	555.90
66886	10/31/2018	11/08/2018	McMaster-Carr Supply Co.	Parts - Ord Village Antenna	268.57
66887	10/01/2018	11/08/2018	AM Conservation Group, Inc.	(1,000) Showerheads, (200) Valves, (400) Aerators, (204) Hose Nozzles	5,433.50
66888	10/25/2018	11/08/2018	TIAA Commercial Finance, Inc.	(3) Office Copier Leases (454E, C754E, 5551ci) 10/2018	949.91
66889	11/01/2018	11/08/2018	Pure Janitorial, LLC	BLM Janitorial Services 10/2018	1,895.89
WIRE	11/02/2018	11/14/2018	Mountain Cascade, Inc.	RUWAP - Construction Progress Billing	522,144.51
66890	10/31/2018	11/19/2018	Ace Hardware	General Supplies	852.57
66891	11/01/2018	11/19/2018	Alhambra and Sierra Springs	Lab Grade Water	50.67
66892	11/01/2018	11/19/2018	Carlons Fire Extinguisher	First Aid Supplies	83.58
				RUWAP - Construction Phase, Project Management, Planning Support	
66893	10/28/2018	11/19/2018	Denise Duffy & Associates, Inc.	and Permit Coordination	15,883.85
66894	11/01/2018	11/19/2018	3T Equipment Company, Inc.	Leader Hose and Swivel Elbow - Jetter# 0801	537.57
66895	10/26/2018	11/19/2018	Idexx Distribution Corporation	Chemicals - Laboratory	412.59
66896	10/31/2018	11/19/2018	Peninsula Welding Supply	Cylinder Rental Fee 10/2018	9.90
66897	11/05/2018	11/19/2018	Staples Credit Plan	Office Supplies	981.94
66898	10/11/2018	11/19/2018	Monterey Tire Service	Tire Replacement - Backhoe 414E #0702	441.08
66899	11/01/2018	11/19/2018	Golden Gate Petroleum	Pump Out Waste Diesel - Wells 30, 31	150.00
66900	10/31/2018	11/19/2018	Pacific Smog	Smog Test - Vehicle #1239	39.75
				NEC Phone Equipment Maintenance, AT&T Wireless Backup, eMVS	
66901	11/01/2018	11/19/2018	Maynard Group	Cloud, VoIP Services 11/2018	2,866.96
66902	10/30/2018		USABluebook	(10) Float Switches - Lift Stations, 4' Steel Probe, Supplies	1,472.80
66903			Core & Main LP	(45) 1" Multi -Jet Meter with 3G Dialog	2,571.97
66904	10/31/2018		DataProse, LLC	Customer Billing Statements 10/2018	5,358.13
66905	10/16/2018	11/19/2018	Conservation Rebate Program	5100 Coe Ave #95 - Toilet Rebate	125.00

Check	Invoice	Check			
No	Date	Date	Vendor Name	Description	Amount
66906	11/15/2018	11/19/2018	Conservation Rebate Program	3064 Bostick Ave - Landscape Incentive Rebate	450.00
66907	11/13/2018	11/19/2018	Conservation Rebate Program	358 Reservation Rd - (2) Toilet Rebates	250.00
66908	11/01/2018	11/19/2018	CCOI Gate & Fence	BLM Gate Repair/ Service	150.00
66909	10/22/2018	11/19/2018	Power Engineers, Inc.	Cityworks/ ESRI Support Services 09/2018	1,367.50
66910	10/25/2018	11/19/2018	Univar USA, Inc.	800 gals Sodium Hypochlorite - Well 10	1,600.06
66911	11/05/2018	11/19/2018	Conservation Rebate Program	3027 Independence Ave - (2) Toilet Rebates	188.00
66912	11/13/2018	11/19/2018	Conservation Rebate Program	4468 Ocean Heights Ct - (3) Toilet Rebates, Washer Rebate	475.00
66913	11/13/2018	11/19/2018	Conservation Rebate Program	307 Hatten Rd - Washer Rebate	150.00
66914	11/13/2018	11/19/2018	Conservation Rebate Program	3216 Susan Ave - Hot Water Recirculation Pump Rebate	199.00
66915	11/14/2018	11/19/2018	Conservation Rebate Program	2943 Harvey Ct - Washer Rebate	50.00
66916	11/14/2018	11/19/2018	Conservation Rebate Program	496 Jean Cir - Washer Rebate	100.00
66917	11/14/2018	11/19/2018	Conservation Rebate Program	326 Carmel Ave #7 - Washer Rebate	100.00
66918	11/08/2018	11/19/2018	California State Lands Commission	Deposit/ Fee - State Land Lease PRC 3965.9 Application Renewal	3,025.00
66919	10/24/2018	11/19/2018	Voyager Fleet Systems, Inc.	Fleet Gasoline	3,381.61
66920			Green Rubber-Kennedy AG, LP	PVC Bushings and Adapter - Well 11 Chlorine System	48.82
66921			Marina Tire & Auto Repair	Oil Change - Vehicles #1701, #1702	76.00
			•	(2,000) Education Booklets - "13 Ways to Conserve Water" and	
66922	11/06/2018	11/19/2018	Channing Bete Company, Inc.	Dewdrop Water Stickers	3,303.92
66923			Remy Moose Manley, LLP	Annexation, RAMCO Well 10/2018	1,430.54
66924		11/19/2018		Professional Services/ Design Phase - Imjin LS	650.50
66925			Access Monterey Peninsula, Inc.	Filming and Production 10/2018	460.00
66926			Aleshire & Wynder, LLP	Opinion for Bay View Community vs. MCWD 09/2018	16,822.35
66927			Peninsula Messenger LLC	Courier Service 10/2018	145.00
66928			Dataflow Business Systems, Inc.	Freight Fee - Black Toner Cartridge	7.50
66929			Western Exterminator Company	Pest Control - Beach Office 10/2018	86.50
66930	11/06/2018	11/19/2018	TIAA Commercial Finance, Inc.	eCopy ScanStation Lease 11/2018	169.98
66931			Conservation Rebate Program	3157 Eucalyptus St #2, #3, #20 - (3) Toilet Rebates	363.00
66932		11/19/2018		Beach Alarm, Main Frame Computer, IOP Fire Alarm 10/2018	97.45
66933			Simpler Systems, Inc.	UB Datapp Maintenance 11/2018	500.00
66934			Fieldman, Rolapp & Associates, Inc.	SRF Loan 04/2018	485.00
66935			Marina Coast Water District (BLM)	BLM Water, Sewer, Fire Service 10/2018	327.86
66936			Johnson Electronics	BLM Fire Alarm Monitoring 10/2018 - 12/2018	84.00
66937			Conservation Rebate Program	278 Carmel Ave #B - Toilet Rebate	125.00
66938	11/01/2018	11/19/2018	Networkfleet, Inc.	GPS Service - (2) Meter Reader Trucks	38.00
66939			MWH Constructors Inc.	Construction Management Services	130,462.74
66940			Interstate Battery of San Jose	(2) Batteries - Tyco Alarm Panel at Beach Office	28.30
WIRE			Union Bank of California	Debt Service Payments - 2010 Refunding Bonds, 2015 Series A Bonds	702,394.07
500123-					
500127	11/02/2018	11/02/2018	Payroll Checks and Direct Deposit	Payroll Ending 10/26/18	102,175.39
500128	11/02/2018	11/02/2018	General Teamsters Union	Payroll Ending 10/26/18	599.00

Check	Invoice	Check			
No	Date	Date	Vendor Name	Description	Amount
500129	11/02/2018		WageWorks, Inc.	Payroll Ending 10/26/18	544.23
ACH			MassMutual Retirement Services, LLC	Payroll Ending 10/26/18	8,115.36
ACH			State of California - EDD	Payroll Ending 10/26/18	9,363.36
ACH			Internal Revenue Service	Payroll Ending 10/26/18	40,377.26
ACH		11/02/2018		Payroll Ending 10/26/18	22,461.99
500130			Becks Shoe Store, Inc Salinas	Boot Benefit - (3) O&M	563.68
500131	10/22/2018		SWRCB - DWOCP	Grade IV Water Distribution Certification Renewal - Green	105.00
500132			Federico Imprints	(6) MCWD Shirts - Meter Reader	167.32
500133			Pinnacle Medical Group, Inc.	Pre-Employment Physical - New Hire	100.00
500134			Principal Life	Employee Paid Benefits 11/2018	681.00
500135			WageWorks, Inc.	FSA Admin Fees 09/2018	110.00
500136			Transamerica Employee Benefits	Employee Paid Benefits 10/2018	1,205.30
500137	10/31/2018	11/02/2018	Cintas Corporation No. 630	Uniforms, Towels, Rugs 10/2018	691.49
500138	10/29/2018	11/02/2018	Andrew Racz	AWWA Annual Fall Conference Hotel and Transportation	956.03
500139	09/30/2018	11/02/2018	Liebert Cassidy Whitmore	General Matters, Employee Handbook Review	2,230.40
500140-					
500144	11/16/2018	11/16/2018	Payroll Checks and Direct Deposit	Payroll Ending 11/09/18	100,890.60
ACH	11/16/2018	11/16/2018	MassMutual Retirement Services, LLC	Payroll Ending 11/09/18	8,115.36
500145	11/16/2018	11/16/2018	WageWorks, Inc.	Payroll Ending 11/09/18	544.23
ACH	11/16/2018	11/16/2018	Internal Revenue Service	Payroll Ending 11/09/18	37,617.26
ACH	11/16/2018	11/16/2018	State of California - EDD	Payroll Ending 11/09/18	8,892.67
ACH	11/16/2018	11/16/2018	CalPERS	Payroll Ending 11/09/18	22,462.02
500146	11/05/2018	11/19/2018	Becks Shoe Store, Inc Salinas	Boot Benefit - (2) O&M	389.82
500147	11/06/2018	11/19/2018	ACWA/ JPIA	Medical, Dental, Vision and EAP Insurance 12/2018	65,236.31
500148	11/13/2018	11/19/2018	SWRCB - DWOCP	Grade V Water Distribution Operator Certification Renewal - Cray	105.00
500149	11/05/2018	11/19/2018	LegalShield	Employee Paid Benefits 11/2018	25.90
				Annual Governmental GAAP Update - Cadiente, Hatfield; Leases under	
500150			Government Finance Officers Association	the New Standard - Hatfield; Pension and OPEB Webinar - Hatfield	440.00
500151	10/31/2018	11/19/2018	Justifacts Credential Verification, Inc.	Background Checks - New Hire	111.75
500152-					
500156	11/30/2018	11/30/2018	Payroll Checks and Direct Deposit	Payroll Ending 11/23/18	102,168.74
500157			WageWorks, Inc.	Payroll Ending 11/23/18	544.23
ACH	11/30/2018	11/30/2018	CalPERS	Payroll Ending 11/23/18	22,244.17
ACH	11/30/2018	11/30/2018	Internal Revenue Service	Payroll Ending 11/23/18	38,591.29
ACH	11/30/2018	11/30/2018	State of California - EDD	Payroll Ending 11/23/18	9,079.53
ACH	11/30/2018	11/30/2018	MassMutual Retirement Services, LLC	Payroll Ending 11/23/18	8,115.36

Total Disbursements for November 2018 2,513,023.61

Agenda Item: 11-B Meeting Date: December 17, 2018

Prepared By: Kelly Cadiente Approved By: Keith Van Der Maaten

Agenda Title: Receive the Quarterly Financial Statements for April 1, 2018 to June 30, 2018

Staff Recommendation: The Board receives the Quarterly Financial Statements for April 1, 2018 to June 30, 2018.

Background: 5-Year Strategic Plan, Strategic Element No. 3.2 – Regular Financial Updates to Policymakers and Managers.

Discussion/Analysis: All figures reported for the quarter are based on accrual basis accounting. The District's consolidated financial statement for the quarter includes operating revenues of \$4.195 million and expenses of \$3.361 million, resulting in a net gain from operations of \$0.834 million. The District budget projected net gain from operations of \$0.398 million for the same period.

The difference between the actual net gain from operations for the quarter from the budget gain expectation is \$0.436 million due to the timing of when revenues are earned and expenses are accrued producing different results than those in which the annual budget amounts are divided evenly by quarter.

Summary of Cost Centers:

<u>Description</u>	Actual Qtr	Budget Qtr	Actual FYTD	Budget FYTD
Marina Water				
Revenue	1,015,260	980,132	3,987,738	3,920,525
Expenses	654,073	732,619	2,524,793	2,930,475
Net Gain/(Loss)	361,187	247,513	1,462,945	990,050
Marina Sewer				
Revenue	339,790	288,209	1,271,507	1,152,835
Expenses	200,183	180,341	680,743	721,363
Net Gain/(Loss)	139,607	107,868	590,764	431,472
Ord Community Water				
Revenue	2,151,082	1,573,021	8,258,396	6,292,081
Expenses	1,856,236	1,639,481	6,333,836	6,557,925
Net Gain/(Loss)	294,846	(66,460)	1,924,560	(265,844)
Ord Community Sewer				
Revenue	689,032	622,535	2,633,233	2,490,142
Expenses	461,454	437,810	1,586,434	1,751,238
Net Gain/(Loss)	227,578	184,725	1,046,799	738,904

Recycled Water Project				
Revenue	166	9	206	35
Expenses	189,329	75,926	320,269	303,704
Net Gain/(Loss)	(189,163)	(75,917)	(320,063)	(303,669)
Regional Project				
Revenue	-	-	-	-
Expenses	<u>-</u>	<u> </u>	<u> </u>	
Net Gain/(Loss)	-	-	-	-
Consolidated Cost Centers				
Revenue	4,195,330	3,463,906	16,151,080	13,855,618
Expenses	3,361,275	3,066,177	11,446,075	12,264,705
Net Gain/(Loss)	834,055	397,729	4,705,005	1,590,913

As of June 30, 2018, the District had \$18.765 million in liquid investments. The District also had \$0.853 million of 2010 refunding bond proceeds for debt reserve purposes in the bank.

The District owed \$28.005 million for the 2015 Senior Revenue Refunding Bonds Series A as well as \$2.585 million for the 2010 Subordinate Revenue Refunding Bonds, \$2.722 million to Holman Capital Corporation for the conversion of the Rabobank N.A. construction loan for the BLM building, and \$6.563 million to BVAA Compass Bank Line of Credit for the Regional Urban Water Augmentation Project as of June 30, 2018.

Environmental Revie	ew Compliance: None require	d.	
Financial Impact:	Yes <u>X</u> No	Fun	nding Source/Recap: None
Other Considerations	s: None		
Material Included for and Debt Summary S		Quarterly I	Financial Statements, Investments
Action Required:	Resolution	Motion	XReview
	Board Ad	ction	
Motion By	Seconded By		No Action Taken
Ayes		Abstained_	
Noes		Absent	

CONSOLIDATED

	CURRENT QUARTER				YEAR-TO-DATE					
	2017/2018	2016/2017	\$ VARIANCE	% VARIANCE	2017/2018	2016/2017	\$ VARIANCE	% VARIANCE		
DEVENUES										
REVENUES WATER SALES	2,740,532	2,509,588	230,944	9.20%	10,844,656	9,486,324	1,358,332	14.32%		
SEWER SALES	1,004,060	903,382	100,678	9.20% 11.14%	3,828,160	3,450,138	378,022	14.32%		
INTEREST INCOME	44,136	20,208	23,928	118.41%	132,986	64,008	68,978	107.76%		
OTHER REVENUE	406,602	232,120	174,482	75.17%	1,345,278	748,872	596,406	79.64%		
OTHERNEVEROE	400,002	202,120	174,402	73.1770	1,040,270	740,072	330, 4 00	73.0470		
TOTAL REVENUES	4,195,330	3,665,298	530,032	14.46%	16,151,080	13,749,342	2,401,738	17.47%		
EXPENSES										
ADMINISTRATIVE	1,176,142	1,165,491	10,651	0.91%	4,277,705	3,734,585	543,120	14.54%		
OPERATING & MAINTENANCE	813,093	1,006,456	(193,363)	(19.21%)	3,181,860	3,173,240	8,620	0.27%		
LABORATORY	70,979	68,570	2,409	3.51%	251,818	256,607	(4,789)	(1.87%)		
CONSERVATION	52,201	100,623	(48,422)	(48.12%)	301,155	304,338	(3,183)	(1.05%)		
ENGINEERING	291,978	370,901	(78,923)	(21.28%)	1,292,658	1,069,156	223,502	20.90%		
INTEREST EXPENSE	797,813	935,193	(137,380)	(14.69%)	1,510,940	1,659,554	(148,614)	(8.96%)		
FRANCHISE FEE	159,069	112,268	46,801	41.69%	629,939	485,813	144,126	29.67%		
TOTAL EXPENSES	3,361,275	3,759,502	(398,227)	(10.59%)	11,446,075	10,683,293	762,782	7.14%		
NET GAIN (LOSS) FROM OPERATIONS	834,055	(94,204)	928,259	(985.37%)	4,705,005	3,066,049	1,638,956	53.45%		
CAPACITY FEE/CAPITAL SURCHARGE	1,084,096	894,001	190,095	21.26%	5,151,848	5,503,637	(351,789)	(6.39%)		
CONTRIBUTIONS/ GRANT REVENUE	10,676,158	230,383	10,445,775	4534.09%	10,676,158	555,104	10,121,053	1823.27%		
NON-OPERATING REVENUE	124,393	289,540	(165,147)	(57.04%)	519,024	714,284	(195,260)	(27.34%)		
CAPITAL IMPROVEMENT PROJECT	16,681,825	911,663	15,770,162	1729.82%	26,132,429	4,120,836	22,011,593	534.15%		
DEVELOPER REVENUE DEVELOPER EXPENSES	162,870 149,602	132,801 122,003	30,069 27,598	22.64% 22.62%	536,022 529,843	571,991 587,647	(35,969) (57,804)	(6.29%) (9.84%)		

MARINA COAST WATER DISTRICT STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES APRIL 1, 2018 TO JUNE 30, 2018 (UNAUDITED)

CONSOLIDATED

	MW F	UND	MS FU	JND	OW FUND		OS FUND		RW FUND		RP FUND		CONSOLIDATED		CONSOLIDATED (YTD)	
	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET
REVENUES																
WATER SALES	977,851	966,058	-	-	1,762,681	1,435,883	-	-	-	-	-	-	2,740,532	2,401,941	10,844,656	9,607,761
SEWER SALES	-	-	328,487	286,964	-	-	675,573	617,901	-	-	-	-	1,004,060	904,865	3,828,160	3,619,460
INTEREST INCOME	13,162	1,324	7,253	895	18,553	1,313	5,002	434	166	9	-	-	44,136	3,975	132,986	15,897
OTHER REVENUE	24,247	12,750	4,050	350	369,848	135,825	8,457	4,200	-	-	-	-	406,602	153,125	1,345,278	612,500
TOTAL REVENUES	1,015,260	980,132	339,790	288,209	2,151,082	1,573,021	689,032	622,535	166	9	-	-	4,195,330	3,463,906	16,151,080	13,855,618
EXPENSES																
ADMINISTRATIVE	272,475	232,427	70,899	63,834	683,864	520,468	148,352	133,656	552	-	-	-	1,176,142	950,385	4,277,705	3,801,542
OPERATING & MAINTENANCE	169,190	259,006	71,569	73,830	458,608	436,166	113,726	155,557	-	-	-	-	813,093	924,559	3,181,860	3,698,237
LABORATORY	22,431	26,566	-	-	48,548	57,953	-	-	-	-	-	-	70,979	84,519	251,818	338,077
CONSERVATION	23,600	50,124	-	-	28,601	69,734	-	-	-	-	-	-	52,201	119,858	301,155	479,431
ENGINEERING	75,919	114,185	15,604	19,342	159,695	251,025	40,760	46,933	-	-	-	-	291,978	431,485	1,292,658	1,725,937
INTEREST EXPENSE	90,458	50,311	42,111	23,335	361,294	201,135	115,173	64,769	188,777	75,926	-	-	797,813	415,476	1,510,940	1,661,901
FRANCHISE FEE	-	-	-	-	115,626	103,000	43,443	36,895	-	-	-	-	159,069	139,895	629,939	559,580
TOTAL EXPENSES	654,073	732,619	200,183	180,341	1,856,236	1,639,481	461,454	437,810	189,329	75,926	-	-	3,361,275	3,066,177	11,446,075	12,264,705
NET GAIN (LOSS) FROM OPERATIONS	361,187	247,513	139,607	107,868	294,846	(66,460)	227,578	184,725	(189,163)	(75,917)	-	-	834,055	397,729	4,705,005	1,590,913
CAPACITY FEE/CAPITAL SURCHARGE	5,453	11,089	2,333	6,416	758,472	725,429	317,837	247,083	-	-	-	-	1,084,096	990,016	5,151,848	3,960,064
CONTRIBUTIONS/ GRANT REVENUE	-	-	-	-	-	-	-	-	10,676,158	-	-	-	10,676,158	-	10,676,158	-
NON-OPERATING REVENUE	34,830	37,122	9,951	10,607	62,197	66,290	17,415	18,561	-	-	-	-	124,393	132,579	519,024	530,317
CAPITAL IMPROVEMENT PROJECT	39,109	-	40,641	-	55,802	-	85,683	-	12,975,872	-	3,484,719	-	16,681,825	-	26,132,429	-
DEVELOPER REVENUE	18,754	-	4,737	-	100,924	118,125	38,455	28,875	-	-	-	-	162,870	147,000	536,022	588,000
DEVELOPER EXPENSES	16,171	3,000	2,154	1,000	101,086	110,000	30,190	27,500	-	-	-	-	149,602	141,500	529,843	566,000

MARINA WATER FUND

		CURRENT (QUARTER		YEAR-TO-DATE				
	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE	
REVENUES									
WATER SALES	977,851	966,058	11,793	1.22%	3,856,211	3,864,230	(8,019)	(0.21%)	
SEWER SALES	-	-	-	-	-	-	-	-	
INTEREST INCOME	13,162	1,324	11,838	894.11%	39,819	5,295	34,524	652.01%	
OTHER REVENUE	24,247	12,750	11,497	90.17%	91,708	51,000	40,708	79.82%	
TOTAL REVENUES	1,015,260	980,132	35,128	3.58%	3,987,738	3,920,525	67,213	1.71%	
EXPENSES									
ADMINISTRATIVE	272,475	232,427	40,048	17.23%	1,074,743	929,709	145,034	15.60%	
OPERATING & MAINTENANCE	169,190	259,006	(89,816)	(34.68%)	753,555	1,036,025	(282,470)	(27.26%)	
LABORATORY	22,431	26,566	(4,135)	(15.57%)	79,777	106,265	(26,488)	(24.93%)	
CONSERVATION	23,600	50,124	(26,524)	(52.92%)	109,710	200,496	(90,786)	(45.28%)	
ENGINEERING	75,919	114,185	(38,266)	(33.51%)	327,992	456,738	(128,746)	(28.19%)	
INTEREST EXPENSE	90,458	50,311	40,147	79.80%	179,016	201,242	(22,226)	(11.04%)	
FRANCHISE/MEMBERSHIP FEES	-	-	-	-	-	-	-	-	
TOTAL EXPENSES	654,073	732,619	(78,546)	(10.72%)	2,524,793	2,930,475	(405,682)	(13.84%)	
NET GAIN (LOSS) FROM OPERATIONS	361,187	247,513	113,674	45.93%	1,462,945	990,050	472,895	47.76%	
CAPACITY FEE/CAPITAL SURCHARGE	5,453	11,089	(5,636)	(50.82%)	14,505	44,356	(29,851)	(67.30%)	
NON-OPERATING REVENUE	34,830	37,122	(2,292)	(6.17%)	145,327	148,489	(3,162)	(2.13%)	
CAPITAL IMPROVEMENT PROJECT	39,109	-	39,109	100.00%	51,902	-	51,902	100.00%	
DEVELOPER REVENUE DEVELOPER EXPENSES	18,754 16,171	3,000	18,754 13,171	100.00% 439.03%	35,567 29,023	- 12,000	35,567 17,023	100.00% 141.86%	

MARINA SEWER FUND

		CURRENT (QUARTER		YEAR-TO-DATE					
	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE		
REVENUES										
WATER SALES	-	-	-	-	-	_	-	_		
SEWER SALES	328,487	286,964	41,523	14.47%	1,240,827	1,147,855	92,972	8.10%		
INTEREST INCOME	7,253	895	6,358	710.39%	21,526	3,580	17,946	501.28%		
OTHER REVENUE	4,050	350	3,700	1057.14%	9,154	1,400	7,754	553.86%		
TOTAL REVENUES	339,790	288,209	51,581	17.90%	1,271,507	1,152,835	118,672	10.29%		
EXPENSES										
ADMINISTRATIVE	70,899	63,834	7,065	11.07%	252,077	255,337	(3,260)	(1.28%)		
OPERATING & MAINTENANCE	71,569	73,830	(2,261)	(3.06%)	277,843	295,320	(17,477)	(5.92%)		
LABORATORY	-	-	-	-	-	-	-	-		
CONSERVATION	-	-	-	-	-	-	-	-		
ENGINEERING	15,604	19,342	(3,738)	(19.33%)	68,476	77,367	(8,891)	(11.49%)		
INTEREST EXPENSE	42,111	23,335	18,776	80.46%	82,347	93,339	(10,992)	(11.78%)		
FRANCHISE/MEMBERSHIP FEES	-	-	-	-	-	-	-	-		
TOTAL EXPENSES	200,183	180,341	19,842	11.00%	680,743	721,363	(40,620)	(5.63%)		
NET GAIN (LOSS) FROM OPERATIONS	139,607	107,868	31,739	29.42%	590,764	431,472	159,292	36.92%		
CAPACITY FEE/CAPITAL SURCHARGE	2,333	6,416	(4,083)	(63.64%)	8,166	25,663	(17,498)	(68.18%)		
NON-OPERATING REVENUE	9,951	10,607	(656)	(6.18%)	41,522	42,426	(904)	(2.13%)		
CAPITAL IMPROVEMENT PROJECT	40,641	-	40,641	100.00%	295,320	-	295,320	100.00%		
DEVELOPER REVENUE DEVELOPER EXPENSES	4,737 2,154	- 1,000	4,737 1,154	100.00% 115.40%	14,215 5,120	- 4,000	14,215 1,120	100.00% 28.01%		

ORD COMMUNITY WATER FUND

		CURRENT (QUARTER		YEAR-TO-DATE					
	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE		
REVENUES										
WATER SALES	1,762,681	1,435,883	326,798	22.76%	6,988,44	5 5,743,531	1,244,914	21.68%		
SEWER SALES	-	-	-	-	-	-	-	-		
INTEREST INCOME	18,553	1,313	17,240	1313.02%	56,79	1 5,250	51,541	981.73%		
OTHER REVENUE	369,848	135,825	234,023	172.30%	1,213,16	543,300	669,860	123.29%		
TOTAL REVENUES	2,151,082	1,573,021	578,061	36.75%	8,258,39	6,292,081	1,966,315	31.25%		
EXPENSES										
ADMINISTRATIVE	683,864	520,468	163,396	31.39%	2,412,40	9 2,081,872	330,537	15.88%		
OPERATING & MAINTENANCE	458,608	436,166	22,442	5.15%	1,673,88	1,744,664	(70,776)	(4.06%)		
LABORATORY	48,548	57,953	(9,405)	(16.23%)	172,04	1 231,812	(59,771)	(25.78%)		
CONSERVATION	28,601	69,734	(41,133)	(58.99%)	191,44	5 278,935	(87,490)	(31.37%)		
ENGINEERING	159,695	251,025	(91,330)	(36.38%)	707,51	3 1,004,101	(296,588)	(29.54%)		
INTEREST EXPENSE	361,294	201,135	160,159	79.63%	704,93	804,541	(99,603)	(12.38%)		
FRANCHISE/MEMBERSHIP FEES	115,626	103,000	12,626	12.26%	471,60	2 412,000	59,602	14.47%		
TOTAL EXPENSES	1,856,236	1,639,481	216,755	13.22%	6,333,83	6,557,925	(224,089)	(3.42%)		
NET GAIN (LOSS) FROM OPERATIONS	294,846	(66,460)	361,306	(543.64%)	1,924,56	0 (265,844)	2,190,404	(823.94%)		
CAPACITY FEE/CAPITAL SURCHARGE	758,472	725,429	33,044	4.56%	3,597,75	3 2,901,714	696,039	23.99%		
NON-OPERATING REVENUE	62,197	66,290	(4,093)	(6.17%)	259,51	2 265,158	(5,646)	(2.13%)		
CAPITAL IMPROVEMENT PROJECT	55,802	-	55,802	100.00%	226,00	1 -	226,001	100.00%		
DEVELOPER REVENUE DEVELOPER EXPENSES	100,924 101,086	118,125 110,000	(17,201) (8,914)	(14.56%) (8.10%)	369,55 402,72		(102,949) (37,280)	(21.79%) (8.47%)		

ORD COMMUNITY SEWER FUND

		CURRENT (QUARTER		YEAR-TO-DATE				
	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE	
REVENUES									
WATER SALES	-	-	-	-	-	-	-	-	
SEWER SALES	675,573	617,901	57,672	9.33%	2,587,333		115,728	4.68%	
INTEREST INCOME	5,002	434	4,568	1052.53%	14,644		12,907	743.06%	
OTHER REVENUE	8,457	4,200	4,257	101.36%	31,256	16,800	14,456	86.05%	
TOTAL REVENUES	689,032	622,535	66,497	10.68%	2,633,233	2,490,142	143,091	5.75%	
EXPENSES									
ADMINISTRATIVE	148,352	133,656	14,696	11.00%	537,369	534,624	2,745	0.51%	
OPERATING & MAINTENANCE	113,726	155,557	(41,831)	(26.89%)	476,574	622,228	(145,654)	(23.41%)	
LABORATORY	-	-	-	-	-	-	-	-	
CONSERVATION	-	-	-	-	-	-	-	-	
ENGINEERING	40,760	46,933	(6,173)	(13.15%)	188,677	187,731	946	0.50%	
INTEREST EXPENSE	115,173	64,769	50,404	77.82%	225,477	•	(33,598)	(12.97%)	
FRANCHISE/MEMBERSHIP FEES	43,443	36,895	6,548	17.75%	158,337	147,580	10,757	7.29%	
TOTAL EXPENSES	461,454	437,810	23,644	5.40%	1,586,434	1,751,238	(164,804)	(9.41%)	
NET GAIN (LOSS) FROM OPERATIONS	227,578	184,725	42,853	23.20%	1,046,799	738,904	307,895	41.67%	
CAPACITY FEE/CAPITAL SURCHARGE	317,837	247,083	70,754	28.64%	1,531,424	988,331	543,093	54.95%	
NON-OPERATING REVENUE	17,415	18,561	(1,146)	(6.17%)	72,663	74,244	(1,581)	(2.13%)	
CAPITAL IMPROVEMENT PROJECT	85,683	-	85,683	100.00%	207,801	-	207,801	100.00%	
DEVELOPER REVENUE DEVELOPER EXPENSES	38,455 30,190	28,875 27,500	9,580 2,690	33.18% 9.78%	116,689 92,980		1,189 (17,020)	1.03% (15.47%)	

RECYCLED WATER FUND

		CURRENT Q	UARTER		YEAR-TO-DATE					
	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE		
REVENUES										
WATER SALES	-	-	-	-	-	-	-	-		
SEWER SALES	-	-	-	-	-	-	-	-		
INTEREST INCOME	166	9	157	1744.44%	206	35	171	488.57%		
OTHER REVENUE	-	-	-	-	-	-	-	-		
TOTAL REVENUES	166	9	157	1744.44%	206	35	171	488.57%		
EXPENSES										
ADMINISTRATIVE	552	-	552	100.00%	1,107	-	1,107	100.00%		
OPERATING & MAINTENANCE	-	-	-	-	-	-	-	-		
LABORATORY	-	-	-	-	-	-	-	-		
CONSERVATION	-	-	-	-	-	-	-	-		
ENGINEERING	-	-	-	-	-	-	-	-		
INTEREST EXPENSE	188,777	75,926	112,851	148.63%	319,162	303,704	15,458	5.09%		
FRANCHISE FEE	-	-	-	-	-	-	-	-		
TOTAL EXPENSES	189,329	75,926	113,403	149.36%	320,269	303,704	16,565	5.45%		
NET GAIN (LOSS) FROM OPERATIONS	(189,163)	(75,917)	(113,246)	149.17%	(320,063)	(303,669)	(16,394)	5.40%		
CAPACITY FEE/CAPITAL SURCHARGE	-	-	-	-	-	-	-	-		
CONTRIBUTIONS/ GRANT REVENUE	10,676,158	-	10,676,158	100.00%	10,676,158	-	10,676,158	100.00%		
NON-OPERATING REVENUE	-	-	-	-	-	-	-	-		
CAPITAL IMPROVEMENT PROJECT	12,975,872	-	12,975,872	100.00%	20,535,871	-	20,535,871	100.00%		
DEVELOPER REVENUE	-	-	-	-	-	-	-	-		
DEVELOPER EXPENSES	-	-	-	-	-	-	-	-		

MARINA COAST WATER DISTRICT INCOME STATEMENT APRIL 1, 2018 TO JUNE 30, 2018 (UNAUDITED)

REGIONAL PROJECT FUND

	CURRENT QUARTER				YEAR-TO-DATE			
	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE	ACTUAL	BUDGET	\$ VARIANCE	% VARIANCE
REVENUES								
WATER SALES	-	-	-	_			-	-
SEWER SALES	-	-	-	-			-	-
INTEREST INCOME OTHER REVENUE	-	-	-	-			-	-
OTHER REVENUE	-	-	-	-		-	-	-
TOTAL REVENUES	-	-	-	-			-	-
EXPENSES								
ADMINISTRATIVE	-	-	-	-			-	-
OPERATING & MAINTENANCE	-	-	-	-			-	-
LABORATORY CONSERVATION	-	-	-	-	•	-	-	-
ENGINEERING	- -	-	-	-		- -	-	- -
INTEREST EXPENSE	-	-	-	-			-	-
FRANCHISE FEE	-	-	-	-			-	-
TOTAL EXPENSES	-	-	-	-			-	-
NET GAIN (LOSS) FROM OPERATIONS	-	-	-	-			-	-
CAPACITY FEE/CAPITAL SURCHARGE	-	-	-	-			-	-
NON-OPERATING REVENUE	-	-	-	-			-	-
CAPITAL IMPROVEMENT PROJECT	3,484,719	-	3,484,719	100.00%	4,815,5	533 -	4,815,533	100.00%
DEVELOPER REVENUE DEVELOPER EXPENSES	-	- -	-	- -		- 	- -	- -

MARINA COAST WATER DISTRICT SCHEDULE OF INVESTMENTS SUMMARY APRIL 1, 2018 TO JUNE 30, 2018 (UNAUDITED)

ACCOUNT	ACCT TYPE	YIELD APR	3/31/2018 BALANCE	QUARTERLY ACTIVITIES TRANSACTION TYPE	AMOUNT	6/30/2018 BALANCE
LAIF ACCOUNT		1.90%	7,583,306	INTEREST 04/13/2018	28,214	7,611,520
SAVINGS ACCOUNT	ММ	0.20%	2,171,295	INTEREST 04/01/18 - 06/30/18 TRANSFER TO CHECKING	1,077 (1,200,000)	2,172,372 972,372
CPFCA DEPOSIT ACCOUNT	MM	0.05%	100,431	INTEREST 04/01/18 - 06/30/18	13	100,444
RESTRICTED FUNDS	MM	0.16%	6,322,398	INTEREST 04/01/18 - 06/30/18	2,522	6,324,920
RUWAP LOC PROCEEDS	CK		4,970	DEPOSITS WITHDRAWALS	9,300,578 (9,300,663)	9,305,548 4,885
CHECKING ACCOUNT	CK		6,941,982	QUARTERLY DEPOSITS & CREDITS QUARTERLY CHECKS & DEBITS	23,384,917 (26,576,305)	30,326,899 3,750,594
		As of Jur	ne 30		As of Jun	e 30
SUMMARY		2017	2018	RESERVES DETAIL (LAIF ACCOUNT)	2017	2018
LAIF ACCOUNT SAVINGS ACCOUNT CPFCA DEPOSIT ACCOUNT RESTRICTED FUNDS RUWAP LOC PROCEEDS CHECKING ACCOUNT TOTAL INVESTMENT		7,522,622 2,168,050 100,393 6,314,837 - 866,334 16,972,236	7,611,520 972,372 100,444 6,324,920 4,885 3,750,594 18,764,735	MW GEN OP RESERVE MW CAPACITY REVENUE FUND MW CAP REPL RESERVE FUND MS GEN OP RESERVE MS CAPACITY REVENUE FUND MS CAP REPL RESERVE FUND OW GEN OP RESERVE OW CAPITAL/CAPACITY REVENUE FUND OW CAP REPL RESERVE FUND OS GEN OP RESERVE OS CAPITAL/CAPACITY REVENUE FUND OS CAP REPL RESERVE FUND TOTAL	516,145 487,202 1,318,342 1,287,078 145,934 - 321,946 2,360,801 190,678 281,430 613,067 - 7,522,623	508,616 565,760 1,274,749 1,336,098 111,903 1,945 76,479 2,762,117 68,784 16,203 887,194 1,672 7,611,520

MARINA COAST WATER DISTRICT SCHEDULE OF INVESTMENTS SUMMARY - BOND PROCEEDS APRIL 1, 2018 TO JUNE 30, 2018 (UNAUDITED)

ACCOUNT	ACCT TYPE	YIELD Apr	3/31/2018 BALANCE	QUARTERLY ACTIVITIES TRANSACTION TYPE	AMOUNT	6/30/2018 BALANCE
RESERVE FUND 2010 REFUNDING BOND	TFUND	1.66%	853,305	INTEREST 04/01/18 - 06/30/18 FUNDS TRANFER	3,268 (4,826)	856,573 851,747

MARINA COAST WATER DISTRICT SCHEDULE OF DEBT SUMMARY APRIL 1, 2018 TO JUNE 30, 2018 (UNAUDITED)

PRINCIPAL Amount	FIRST PAYMENT	FINAL PAYMENT	RATE	3/31/2018 BALANCE	QUARTERLY ACTIVITIES TRANSACTION TYPE	AMOUNT	6/30/2018 BALANCE
HCC - BLM INST.	ALLMENT LOAN						
2,799,880	07/20/2017	01/20/2037	5.750%	2,722,387	PAYMENT - PRINCIPAL INTEREST PAYMENT	-	2,722,387
2010 REFUNDIN	G BOND - CLOSIN	NG DATE 12/23/2	010				
8,495,000	06/01/2011	06/01/2020	4.340%	3,405,000	PAYMENT - PRINCIPAL INTEREST PAYMENT	(820,000) (915,896)	2,585,000
2015 SERIES A F	REFUNDING BON	D - CLOSING DA	TE 07/15/2015				
29,840,000	12/01/2015	06/01/2037	3.712%	28,935,000	PAYMENT - PRINCIPAL INTEREST PAYMENT	(930,000) (767,938)	28,005,000
BVAA COMPASS	RUWAP LOC						
55,000	-	08/01/2020	2.789% *	1,645,000	ADVANCES PAYMENT - PRINCIPAL INTEREST PAYMENT	9,300,578 (4,382,883) (46,681)	10,945,578 6,562,695

^{*}Line of Credit interest calculated on a variable basis (65.01% of the 30-Day Monthly LIBOR plus 1.50%). Amount represents interest rate at 06/01/2018.

SUMMARY

HCC - BLM INSTALLMENT LOAN	2,722,387
2010 REFUNDING BOND	2,585,000
2015 REFUNDING BOND SERIES A	28,005,000
BVAA COMPASS RUWAP LOC	6,562,695
TOTAL DEBT	39,875,082

Marina Coast Water District Agenda Transmittal

Agenda Item:	11-C	Meeting Date: December 17, 2018
Prepared By:	Paula Riso	Approved By: Keith Van Der Maaten
Agenda Title:	Approve the Draft Minutes of the	Joint Board/GSA Meeting of November 19, 2018
Staff Recomn 2018 joint Bo		approve the draft minutes of the November 19,
wastewater c	collection and conservation servi	Statement — We Provide high quality water, ces at a reasonable cost, through planning, rces in an environmentally sensitive manner.
Discussion/Arconsider appro	· ·	vember 19, 2018 are provided for the Board to
Environmenta	ıl Review Compliance: None requir	red.
Financial Imp	act: Yes X No	Funding Source/Recap: None
Other Conside	erations: The Board can suggest cha	anges/corrections to the minutes.
Material Inclu	ided for Information/Consideration:	Draft minutes of November 19, 2018.
Action Requir	red:Resolution2	KMotionReview
	Board .	Action
Motion By	Seconded By	No Action Taken
Ayes		Abstained
Noes		Absent_



Marina Coast Water District

Regular Board Meeting/Groundwater Sustainability Agency Board Meeting November 19, 2018

Draft Minutes

1. Call to Order:

President Moore called the meeting to order at 6:30 p.m. on November 19, 2018 at the Marina Council Chambers, 211 Hillcrest Avenue, Marina, California.

2. Roll Call:

Board Members Present:

Thomas P. Moore – President Jan Shriner – Vice President Bill Lee Herbert Cortez

Board Members Absent:

Howard Gustafson

Staff Members Present:

Keith Van Der Maaten, General Manager Roger Masuda, Legal Counsel Kelly Cadiente, Director of Administrative Services Derek Cray, Operations and Maintenance Manager Brian True, Senior Engineer Patrick Breen, Water Resources Manager Paula Riso, Executive Assistant/Clerk to the Board

Audience Members:

Andrew Sterbenz, Schaaf & Wheeler Philip Clark, Seaside Resident/WCC Chair Matt Zefferman, Marina Resident Joint Board/GSA Meeting November 19, 2018 Page 2 of 8

3. Public Comment on Closed Session Items:

There were no public comments.

The Board entered into closed session at 6:32 p.m. to discuss the following items:

4. Closed Session:

- A. Pursuant to Government Code 54956.9 Conference with Legal Counsel – Existing Litigation
 - Ag Land Trust v. Marina Coast Water District, Monterey County Superior Court Case No. M105019; Sixth Appellate District Court of Appeals Case Nos. H038550 and H039559
 - 2) In the Matter of the Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates, California Public Utilities Commission No. A.12-04-019 & A.13-05-017 Settlement Agreement
 - 3) <u>Marina Coast Water District v. California Public Utilities Commission</u>, California Supreme Court Case No. S230728, Writ of Review
 - 4) <u>California-American Water Company vs Marina Coast Water District; Monterey County Water Resources Agency; and Does 1 through 10, San Francisco Superior Court Case No. CGC-13-528312 (Complaint for Declaratory Relief); First Appellate District Court of Appeals Case No. A145604, A146166, A146405</u>
 - 5) Marina Coast Water District vs. California-American Water Company, Monterey County Water Resources Agency; and, California-American Water Company, Monterey County Water Resources Agency vs Marina Coast Water District, San Francisco Superior Court Case Nos. CGC-15-547125, CGC-15-546632 (Complaint for Breach of Warranties, etc.)
 - 6) <u>Marina Coast Water District v, California Coastal Commission (California-American Water Company, Real Party in Interest)</u>, Santa Cruz County Superior Court Case No. 15CV00267
 - 7) Bay View Community DE, LLC; Bryan Taylor; Greg Carter; and Brooke Bilyeu vs Marina Coast Water District; Board of Directors of Marina Coast Water District; County of Monterey and Does 1-25, inclusive, Monterey County Superior Court Case No. 18CV000765 (Petition for Writ of Mandate or Administrative Mandate, and Complaint for Declaratory and Injunctive Relief and Breach of Contract)

Joint Board/GSA Meeting October 15, 2018 Page 3 of 8

8) Marina Coast Water District, and Does 1-100 v, County of Monterey, County of Monterey Health Department Environmental Health Bureau, and Does 101-110, Monterey County Superior Court Case No. 18CV000816 (Petition for Writ of Mandate and Complaint for Injunctive Relief)

The Board ended closed session at 7:01 p.m.

President Moore reconvened the meeting to open session at 7:03 p.m.

5. Reportable Actions Taken during Closed Session:

Mr. Roger Masuda, Legal Counsel, stated that there were no reportable actions taken during Closed Session.

6. Pledge of Allegiance:

Director Lee led everyone present in the pledge of allegiance.

7. Oral Communications:

Mr. Phil Clark, Seaside resident/WCC Chair, commented that the District was still in Stage 2 Conservation and noted that as of December 1st, the Bay View Mobile Home owner is requiring tenants to keep their lawns green and water rates will increase in January 2019. He suggested that the District meet with Bay View to discuss other options that would save water.

8. Presentation:

A. Consider Adoption of Resolution No. 2018-60 In Recognition and Appreciation of Jean Premutati, Human Resources/Customer Relations Manager, Upon Her Retirement from the Marina Coast Water District:

President Moore made a motion to approve Resolution No. 2018-60 in recognition and appreciation of Jean Premutati, Human Resources/Customer Relations Manager, upon her retirement from the Marina Coast Water District. Vice President Shriner seconded the motion. The motion was passed by the following vote:

Director Gustafson - Absent Vice President Shriner - Yes Director Lee - Yes President Moore - Yes

Director Cortez - Yes

President Moore read the narration into the record. The Board voiced their thanks for Ms. Premutati's service to the District.

9. Marina Coast Water District Groundwater Sustainability Agency Matters:

Joint Board/GSA Meeting November 19, 2018 Page 4 of 8

A. Action Item:

1. Consider Adoption of Resolution No. 2018-GSA02 to Approve a Groundwater Sustainability Agency Framework Agreement:

Mr. Patrick Breen, Water Resources Manager, introduced this item and explained the Agreement is for the Parties to work collaboratively to create one Groundwater Sustainability Plan for the entire Monterey Subbasin and the 180/400 Foot Aquifer Subbasin.

Vice President Shriner made a motion to adopt Resolution No. 2018-GSA02 to approve a Groundwater Sustainability Agency Framework Agreement. Director Lee seconded the motion. The motion was passed.

Director Gustafson - Absent Vice President Shriner - Yes Director Lee - Yes President Moore - Yes

Director Cortez - Yes

10. Return to Marina Coast Water District Matters:

11. Consent Calendar:

Director Lee made a motion to approve the Consent Calendar consisting of: A) Receive and File the Check Register for the Month of October 2018; B) Approve the Draft Minutes of the Joint Board/GSA Meeting of October 15, 2018; C) Consider Adoption of Resolution No. 2018-61 to Authorize the General Manager or his Designee to Execute a Memorandum of Understanding between Monterey One Water and Marina Coast Water District for Conducting a Public Education Program for the Sothern Monterey Bay Dischargers Group; and, D) Consider Adoption of Resolution No. 2018-62 to Ratify Approval of an Amendment to a Professional Services Agreement with Denise Duffy & Associates for Annexation of the Ord Community into the Marina Coast Water District. Vice President Shriner seconded the motion. The motion was passed by the following vote:

Director Gustafson - Absent Vice President Shriner - Yes Director Lee - Yes President Moore - Yes

Director Cortez - Yes

12. Action Items:

A. Consider that Staff Reports Presented at Each Board Meeting on the Status of the Shea Homes Hot Water Recirculation Issue are No Longer Necessary at This Time:

Mr. Keith Van Der Maaten, General Manager, introduced this item explaining that he felt the District has done everything they can for the time being and it doesn't need to come to the Board every month. He noted that if something changes, it can always be placed back on a Board agenda.

Joint Board/GSA Meeting November 19, 2018 Page 5 of 8

Agenda Item 12-A (continued):

President Moore made a motion to determine that staff reports were no longer necessary as all reasonable efforts have been taken by Marina Coast Water District to help resolve the hot water recirculation issue caused by Shea Homes. Director Lee seconded the motion. The motion was passed.

Director Gustafson - Absent Vice President Shriner - Yes Director Lee - Yes President Moore - Yes

Director Cortez - Yes

B. Consider Adoption of Resolution No. 2018-63 to Approve a Water Supply Assessment and Written Verification of Supply for the City of Seaside's Amended Main Gate Specific Plan:

Mr. Brian True, Senior Engineer, introduced this item and handed out a chart showing water supply, demand, and allocation options for the Main Gate project. The Board asked some clarifying questions. President Moore suggested adding the phasing concept to the Water Supply Assessment (WSA); clarifying the Desalination Project AFY on page 5 of the WSA; and, updating the production table on page 17 of the WSA.

Director Lee made a motion to adopt Resolution No. 2018-63 to approve a Water Supply Assessment and Written Verification of Supply for the City of Seaside's Amended Main Gate Specific Plan with the modifications suggested by President Moore. Director Cortez seconded the motion. The motion was passed.

Director Gustafson - Absent Vice President Shriner - Yes Director Lee - Yes President Moore - Yes

Director Cortez - Yes

C. Consider Adoption of Resolution No. 2018-64 to Amend the On-Call Engineering Professional Services Agreement with Schaaf & Wheeler for the Ord Village Lift Station Design:

Mr. True introduced this item explaining the reason for the change to the Ord Village Lift Station alignment was due to coordinating with development projects. The Board asked clarifying questions and questioned easements with the new alignment.

Director Lee made a motion to adopt Resolution No. 2018-64 to amend the On-Call Engineering Professional Services Agreement with Schaaf & Wheeler for the Ord Village Lift Station design. Vice President Shriner seconded the motion. The motion was passed.

Director Gustafson - Absent Vice President Shriner - Yes Director Lee - Yes President Moore - Yes

Director Cortez - Yes

Joint Board/GSA Meeting November 19, 2018 Page 6 of 8

D. Receive a Developer Account Update and Consider Adoption of Resolution No. 2018-65 Directing Staff to Write-Off One Aged Development Account Balance in the Total Amount of \$10,932:

Mr. True introduced this item explaining that this report covered both the quarterly developer account update and the request to write-off one aged and uncollectable development account balance. There was discussion on whether there was a chance to recoup the funds from Monterey Downs, and what procedures are in place to prevent this from happening again. Director Cortez asked for a report of how much the District has written-off in 2018 on the next agenda.

Vice President Shriner made a motion to adopt Resolution No. 2018-65 directing staff to write-off one aged development account balance in the total amount of \$10,932. President Moore seconded the motion. The motion was passed.

Director Gustafson - Absent Vice President Shriner - Yes Director Lee - Yes President Moore - Yes

Director Cortez - Yes

13. Staff Report:

A. Receive an Update on the 2018 Year in Review Report and Provide Comments:

Mr. Van Der Maaten introduced this item explaining that this report was more extensive from last year's report as it encompasses and follows the District's Goals and Objectives format. He then gave a brief overview of the 2018 Year in Review (YIR) and asked for comments from the Board. Vice President Shriner suggested page 7 of the YIR clarify the first sentence of the Groundwater Sustainability Plan Development "...(GSA) status in portions of the Monterey Subbasin...". Director Cortez suggested re-ordering the paragraphs under Section 4.0 Strategic Partners and Public Affairs on page 21 of the YIR. He suggested moving News & Outreach to the first paragraph; Meetings with SWRCB, Regional Board, State Lands, as the second paragraph; MCWD Partners with California State University, Monterey Bay, as the third paragraph; and, Social Media Presence as the last paragraph. He suggested adding a picture of the General Manager giving a presentation. President Moore suggested adding a table of Public Partners under this section. President Moore noted that he had several grammatical changes that he would send straight to staff.

14. Informational Items:

A. General Manager's Report:

No report was given.

B. Counsel's Report:

No report was given.

Joint Board/GSA Meeting November 19, 2018 Page 7 of 8

Page / of	8
C. Co	ommittee and Board Liaison Reports:
1.	Water Conservation Commission:
No report	was given.
2.	Joint City District Committee:

President Moore gave a brief update.

3. Executive Committee:

President Moore noted that they met and the next meeting was December 11th.

4. Community Outreach Committee:

No report was given.

5. Budget and Personnel Committee:

No report was given.

6. M1W Board Member:

President Moore gave a brief update.

7. LAFCO Liaison:

Director Cortez gave a brief update.

8. FORA:

President Moore gave a brief update.

9. WWOC:

Mr. Van Der Maaten stated that the next meeting was December 19th.

10. JPIA Liaison:

Director Cortez noted that there was an upcoming conference in San Diego.

11. Special Districts Association Liaison:

President Moore gave a brief update.

Joint Board/GSA Meeting November 19, 2018	
Page 8 of 8	
12. SVGSA Liaison:	
Mr. Van Der Maaten gave a brief update.	
15. Board Member Requests for Future Agenda Items:	
President Moore noted that any requests could be emailed accounts the District has written-off.	to staff and requested a list of developer
16. Director's Comments:	
Director Lee, Director Cortez, Vice President Shriner, and	d President Moore made comments.
17. Adjournment:	
The meeting was adjourned at 8:33 p.m.	APPROVED:
	Thomas P. Moore, President

ATTEST:

Paula Riso, Deputy Secretary

Marina Coast Water District Agenda Transmittal

Agenda Item: 11-D Meeting Date: December 17, 2018

Prepared By: Paul Lord Approved By: Keith Van Der Maaten

Reviewed By: Patrick Breen

Agenda Title: Receive the Validated 2017 Water Loss Audit Report and Level 1 Validation

Document

Staff Recommendation: The Board of Directors receive the Validated 2018 Water Loss Audit Report and Level 1 Validation Document.

Background: 5-Year Strategic Plan Mission Statement — We provide our customers with high quality water, wastewater collection and conservation services at a reasonable cost, through planning, management and the development of water resources in an environmentally sensitive manner.

Previously, retail water suppliers were asked to submit water loss audits as part of urban water management plans prepared only once every five years. Now, water loss audits are required annually. California Senate Bill 555, passed in October 2015, requires all urban retail water suppliers in the state to submit a completed and third party validated water loss audit annually to the California Department of Water Resources (DWR) beginning October 2017.

A water loss audit is an accounting exercise that is conceptually similar to a financial audit. Whereas a financial audit tracks all sources and uses of funds for an organization, a water loss audit tracks all sources and uses of water within a water system over a specified period to estimate the volume and value of water loss. Water loss audits are a valuable tool used to help identify and prioritize a water purveyor's operations that can be improved to maximize the efficiency of water production and delivery. The water loss audit also helps improve the generation of revenue by estimating the financial value of water losses. Having a water loss audit validated by an independent third party assures that the source of the data is reliable, complete, consistent, and accurate.

In 2019, DWR hopes to establish minimum standards of audit reliability and performance measures to help guide water purveyors towards long-term water loss reductions, targeted conservation efforts, and an improvement in the generation of revenue.

This year's MCWD water audit metrics reveal an Infrastructure Leakage Index (ILI) of 1.52 that describes a water system that experiences low leakage at 1.52 times the modeled technical minimum for its system characteristics.

Responding to suggestions made by the 2016 Water Loss Audit third party validator about improving data validity and reducing real and apparent losses for the 2017 audit, district staff accomplished the following tasks in 2017:

- Metered 288 previously unmetered accounts
- Prioritized efforts to replace older, failing meter registers

- Made an adjustment for lag time in customer meter reading data
- Developed a more precise estimate of water storage capacity
- Calculated the net change in distribution storage for the year

As summarized in the attached validation review documentation that summarizes the key audit metrics, the overall Data Validity Score of 59, falling within Band III (51-70) of five bands and a scale to 100, suggests that the next improvement steps for the District may be focused simultaneously on improving data reliability and evaluating cost-effective interventions for water and revenue loss recovery. While the District received higher grades for a few audit factors, the overall score in 2017 was lower than 2016 primarily because of scrutiny and adherence to the boundaries of the data validity grades and the following operational factors:

- One primary well production meter was not tested for calibration in 2017
- More than 10% of accounts were unmetered during the audit period
- The oldest meters are not being tested for accuracy nor replaced based on age
- Customer meter accuracy testing was not conducted
- No real-time distribution system pressure monitoring equipment is currently in place

To improve data collection accuracy and reduce water losses, the third-party audit validator suggests the following actions be taken:

- Continue to meter unmetered connections
- Develop a customer meter accuracy testing and meter replacement program that would help set meter replacement goals based upon accuracy test results
- Conduct a Real Loss Component Analysis to develop a leakage profile
- Conduct an Apparent Loss Component Analysis to develop an apparent loss profile
- Implement a Cost-benefit analysis & target setting for water loss components
- Design and implement a water loss control program for cost-effective interventions

Environmental Review	Compliance: None requi	red.
Financial Impact:	YesXNo	Funding Source/Recap: None
Other Considerations:	None.	
Material Included for In Validation Report.	nformation/Consideration	Water Loss Audit Report; and, Water Loss Audi
Action Required:	Resolution	MotionXReview
	Board	Action
Motion By	Seconded By	No Action Taken
Ayes		Abstained
N		A1



AWWA 2017 Water Audit Level 1 Validation – Review Document

Audit Information:

Utility: Marina Coast Water District PWS ID: 2710017

System Type: Potable Audit Period: Calendar 2017

Utility Representation: Paul Lord, John Bardos, Patrick Green, Derek Cray, Mike Wegley

Validation Date: 9/5/2018 Call Time: 11:30am Sufficient Supporting Documents Provided: Yes

Validation Findings & Confirmation Statement:

Key Audit Metrics:

Data Validity Score: 58 Data Validity Band (Level): Band III (51-70)

ILI: 1.52 Real Loss: 26.49 (gal/conn/day) Apparent Loss: 3.33 (gal/conn/day)

Non-revenue water as percent of cost of operating system: 1.0%

Certification Statement by Validator:

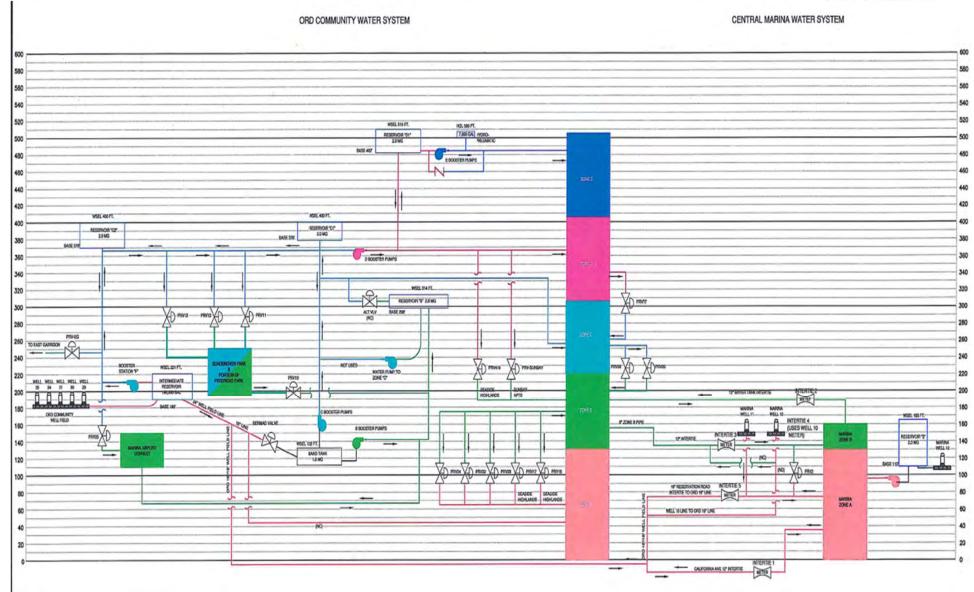
This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34.

All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit. ⊠

Validator Information:

Water Audit Validator: Drew Blackwell Validator Qualifications: Contractor for California Water Loss TAP







#	AWWA Water Audit Input	Code	Final DVG	Rasis on Innut Derivation	Basis on Data Validity Grade
1	Volume from Own Sources	VOS	5	Supply meter profile: 8 wells, only 7 active with wells located centrally in the system (2 in Marina, 5 in Ord). Propeller-type meters are tied to SCADA except for Wells 29 and 31. VOS input derived from: Manual reads from production meters as archived. Comments: Input derivation from supporting documents confirmed. Exclusion of non-potable volumes confirmed.	annually.
2	VOS Master Meter & Supply Error Adjustment	VOS MMSEA	3	Input derivation: Volumetric accuracy results left blank in absence of available test data accounting for 90% of the source flow. Net storage levels are applied. Net storage change included in MMSEA input: Yes. Comments: Initial MMSEA calculated via straight average of test results. For future audits, calculate an average weighted by the percent of source flow at each meter	Supply meter read frequency: Daily. Supply meter read method: Manual. Frequency of data review for trends & anomalies: Weekly. Storage levels monitored in real-time: Yes. Comments: No automatic data logging for all sources is limiting criteria.
3	Water Imported	WI	n/a	Import meter profile: One emergency connection with Cal American water, but not used during audit period.	
4	WI Master Meter & Supply Error Adjustment	WI MMSEA	n/a		
5	Water Exported	WE	n/a		
6	WE Master Meter & Supply Error Adjustment	WE MMSEA	n/a		
7	Billed metered	BMAC	5	Customer meter profile: Age profile: Many of small meters are less than 10 years old Reading system: AMR. Read frequency: Monthly.	Percent of customers metered: less than 90% Small meter testing policy: Reactive - complaint based or flagged-consumption testing only. Number of small meters tested/year: 0



AWWA Water Audit Input	Code	Final DVG	Racic on Innut Derivation	Basis on Data Validity Grade
			Comments: Lag-time correction is not employed in input derivation. Input derivation from supporting documents confirmed. Exclusion of non-potable volumes confirmed.	Large meter testing policy: Testing is conducted every three years for all testable large meters. Number of large meters tested/year: 0 Meter replacement policy: Upon failure only. Number of replacements/year: Variable based on funding. Billing data auditing: Standard billing QC, plus review of volumes by use type each billing cycle. Comments: Limiting criteria is the less than 90% of customers metered and no replacement based on oldest meters.
Billed unmetered	BUAC	7	Profile: Approximately 800 military housing connections Input derivation: Extrapolation from like use data on metered connections (0.28 acre-feet/year). Periodically a report would be run for what a new community would use (last report in 2016). Comments: In process of installing meters with plan to meter in the next 3 years. No site-specific estimations.	Policy for metering exemptions: All connections require metering, but a few unmetered connections remain. Comments: No additional comments.
Unbilled metered	UMAC	8	Profile: Own facilities, vactor/valve/jetter truck, lift stations Input derivation: Direct from meter readings read annually. Comments: Input derivation from supporting documents confirmed.	Policy for billing exemptions: Limited to own facilities. Comments: No additional comments.
Unbilled unmetered	UUAC	10	Profile: Operational flushing and fire department usage Confirmed leakage estimates are not included Comments: The District records hydrant run times for line flushing, fire pressure testing and fire training. Run times are converted to water use estimates and recorded in the work order database.	Comments: Good recordkeeping and estimation practices
Unauthorized consumption	UC	5	Comments: Default input applied.	Comments: Default grade applied.
Customer metering inaccuracies	СМІ	3		Characterization of meter testing: Routine (proactive), but not fully representative. Characterization of meter replacement: Routine (proactive), but limited. Comments: No additional comments.
Systematic data handling errors	SDHE	5	Comments: Default input applied.	Comments: Default grade applied.
Length of mains	Lm	9	Input derivation: Totaled from GIS based map. Hydrant leads included: Yes.	Mapping format: Digital.
	Billed unmetered Unbilled metered Unbilled unmetered Unauthorized consumption Customer metering inaccuracies Systematic data handling errors	Billed unmetered BUAC Unbilled metered UMAC Unbilled unmetered UUAC Unauthorized consumption UC Customer metering inaccuracies Systematic data handling errors	Audit Input Code DVG Billed unmetered BUAC 7 Unbilled metered UMAC 8 Unbilled unmetered UUAC 10 Unauthorized consumption UC 5 Customer metering inaccuracies Systematic data handling errors SDHE 5	Audit Input Code DVG Basis on Input Derivation Comments: Lag-time correction is not employed in input derivation. Input derivation from supporting documents confirmed. Exclusion of non-potable volumes confirmed. Profile: Approximately 800 military housing connections input derivation: Extrapolation from like use data on metered connections (0.28 acre-feet/year). Periodically a report would be run for what a new community would use (last report in 2016). Comments: In process of installing meters with plan to meter in the next 3 years. No site-specific estimations. Profile: Own facilities, vactor/valve/jetter truck, lift stations input derivation: Direct from meter readings read annually. Comments: Input derivation from supporting documents confirmed. Profile: Operational flushing and fire department usage Confirmed leakage estimates are not included Comments: The District records hydrant run times for line flushing, fire pressure testing and fire training. Run times are converted to water use estimates and recorded in the work order database. Unauthorized consumption Customer metering CMI 3 See BMAC comments regarding meter testing & replacement activities. Input derivation: Rudimentary estimate. Recently installed 500 meters over last 2 years, so applying manufacturers accuracy. Comments: No additional comments. Systematic data handling errors Length of mains. Length of mains. Length of mains. Length of mains.



	AWWA Water		Final		
#	Audit Input	Code	DVG	Basis on Input Derivation	Basis on Data Validity Grade
				Comments: No additional comments.	Asset management database: In place and integrated with GIS system. Map updates & field validation: Accomplished through normal work order processes. Comments: No additional comments.
15	Number of service connections	Ns	7	Input derivation: Standard report run from billing system to generate total metered connections. It is estimated that 70% of all 3,931 marina water service points share a connection to the mainline = 2752 water services share a connection. There are 2 services per connection so there are 1376 shared connections to the mains in Marina. Then there are the additional 1179 water services that do not share a connection to the main. All together in Marina there are 2555 connections to the main. All 1872 military housing units share a connection. Therefore, there are 936 shared connections for these homes. The other 2473 water services have a single connection. Combined, less fire connections, in the Ord community there are 3409 connections to the main. Throughout both Marina and Ord communities there are 886 fire connections. All combined the number of total connections to the main there is 6850. Basis for database query: Meter ID - non-premise based. Comments: No additional comments.	CIS updates & field validation: No proactive visits to meters Estimated error of total count within: Believed to be less than 1%. Comments: Uncertain of review frequency for policy and procedures for new account activation and billing operations.
16	Ave length of cust. service line	Lp	10	Comments: Default input and grade applied, as customer meters are typical	ally located at the property boundary given California climate.
17	Average operating pressure	АОР	3	Number of zones, general profile: 5 pressure zones (Ord) & 2 in Marina controlled by PRVs Typical pressure range: 30 to 90 psi Input derivation: Calculated as simple average from analysis of field data. Comments: No additional comments.	Extent of static pressure data collection: Hydrant pressures taken during routine system flushing and/or hydrant testing. Characterization of real-time pressure data collection: No real-time monitoring currently in place. Hydraulic model: One exists but has not been calibrated within the last 5 years. Comments: Limiting criteria is well covered vs. basic coverage for telemetry.
18	Total annual operating cost	TAOC	10	Input derivation: From official financial reports. Comments: Confirmed costs limited to water only, and water debt service included.	Frequency of internal auditing: Annually. Frequency of third-party CPA auditing: Annually. Comments: No additional comments.



#	AWWA Water Audit Input	Code	Final DVG	Basis on Input Derivation	Basis on Data Validity Grade
1	Customer retail unit cost	CRUC	8	Input derivation: Total consumptive revenue divided by Billed Metered Authorized Consumption. Sewer charges are not based on water meter readings. Sewer revenues are not applicable. Comments: Rate structures are different for Marina & Ord systems, but were combined in the calculation.	Characterization of calculation: Weighted average composite of all rates. Input calculations have not been reviewed by an M36 water loss expert. Comments: No additional comments.
2	Variable production cost	VPC	5	Supply profile: Own sources only. Primary costs included: Treatment chemicals and supply & distribution power. Secondary costs included: None currently included. Comments: Calculation conducted for Marina and Ord separately and then weighted by volume produced for each system. CRUC to value real losses initially checked but removed. Use only if resources are strained and ability to meet future drinking water demands are in question.	Characterization of calculation: Primary costs only. Input calculations have not been reviewed by an M36 water loss expert. Comments: Score increased based on method of calculations.



Key Audit Metrics

(~) VALIDITY Data Validity Score: 59 Data Validity Band (Level): Band III (51-70)

(#) VOLUME ILI: 1.52 Real Loss: 26.49 (gal/conn/day) Apparent Loss: 3.33 (gal/conn/day)
(\$) VALUE Annual Cost of Real Losses: \$30,817 Annual Cost of Apparent Losses: \$57,701

Infrastructure & Water Loss Management Practices:

Infrastructure age profile: Ord system was inherited from federal gov't.

Infrastructure replacement policy (current, historic):Any rehab areas are being fully replaced.

Estimated main failures/year: Not discussed

Estimated service failures/year: Not discussed

Extent of proactive leakage management: Have purchased leak equipment and are implementing pilot program. Other water loss management comments: Have isolated unused areas of the system and seen reduction in leaks.

Comments on Audit Metrics & Validity Improvements

The Infrastructure Leakage Index (ILI) of 1.52 describes a system that experiences leakage at 1.52 times the modeled technical minimum for its system characteristics.

The Data Validity Score falling within Band III (51-70) suggests that next steps may be focused simultaneously on improving data reliability and evaluating cost-effective interventions for water & revenue loss recovery. Opportunities to improve the reliability of audit inputs and outputs include:

- Improved understanding of Supply Meter (Own) Master Meter Error: consider adopting or increasing the rigor of a source meter volumetric testing and calibration program, informed by the guidance provided in AWWA Manual M36 Appendix A.
- Improved estimation of CMI: consider a customer meter testing program which tests a sample of random meters whose stratification (by size, age, or other characteristics) represents the entire customer meter stock.

Further Recommendations

Since Data Validity Score is >50, consider follow-on implementations as described in the AWWA M36 Manual, once the annual water audit is established:

- Conduct a Real Loss Component Analysis to develop your leakage profile.
- Conduct an Apparent Loss Component Analysis to develop your apparent loss profile.
- Cost-benefit analysis & target setting for water loss components.
- Design & implement water loss control program for cost-effective interventions.

Utility Provided

2017 AWWA Water Audit Level 1 Validation

Water System Name:

Water System ID Number:

Water Audit Period:

Marina Coast Water District

#2710017

Calendar Year 2017

Water Audit & Water Loss Improvement Steps:

Steps taken in preceding year to increase data validity, reduce real loss and apparent loss as informed by the annual validated water audit:

- The number of unmetered, residential accounts has been reduced considerably. 288 residential housing units were metered in 2017. Billed Unmetered water consumption (estimated) dropped from 243 AF in 2016 to 190 AF in 2017.
- To more accurately determine customer consumption, an adjustment for lag time in customer meter reading data was made.
- The ongoing, prioritized effort to replace older, failing meter registers continued throughout 2017.
- A calculation was made to determine the net change in distribution storage between January 1st and December 31st.
- A more precise estimate of storage capacity was made.

Certification Statement by Utility Executive:

This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34 and has been prepared in accordance with the method adopted by the American Water Works Association, as contained in their manual, Water Audits and Loss Control Programs, Manual M36, Fourth Edition and in the Free Water Audit Software version 5.

Keith Van Der Maaten

Executive Position

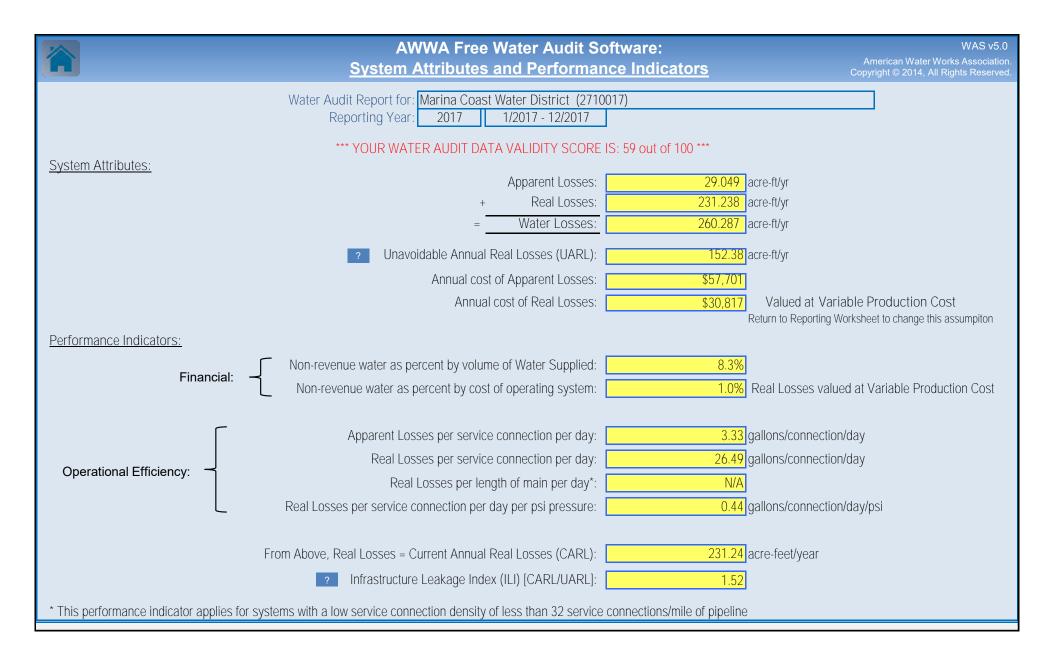
Signature

Date

Executive Name (Print)

9/25/18

	A		e Water Audit S			WAS v5.0 American Water Works Association
		Repo	orting Workshee	<u>et</u>	(Copyright © 2014, All Rights Reserved
Click to access definition Click to add a comment	Water Audit Report for: Reporting Year:	Marina Coas 2017	1/2017 - 12/2017	017)		
	below. Where available, metered values sho ent (n/a or 1-10) using the drop-down list to					n the accuracy of the
	Al	l volumes to l	be entered as: ACRE-I	FEET PER YEAR		
To selec	et the correct data grading for each input					
WATER SUPPLIED	the utility meets or exceeds <u>all</u> criteria f	•	•	in column 'E' and 'J'	Master Meter and Sup > Pcnt:	pply Error Adjustments Value:
WATER SUPPLIED	Volume from own sources:		3,238.600		3 0 0	
	Water imported:	+ ? n/a	0.000			
	Water exported:	+ ? n/a	0.000	acre-ft/yr + ?		acre-ft/yr alue for under-registration
	WATER SUPPLIED:		3,239.227	acre-ft/yr	•	lue for over-registration
AUTHORIZED CONSUMPTION						Click here:
	Billed metered: Billed unmetered:		2,780.740 190.590			for help using option buttons below
	Unbilled metered:		5.090		Pcnt:	Value:
	Unbilled unmetered:	+ ? 10	2.520	acre-ft/yr	()(2.520 acre-ft/yr
					^	Use buttons to select
	AUTHORIZED CONSUMPTION:	?	2,978.940	acre-ft/yr	•••••	percentage of water supplied
					<u> </u>	OR
WATER LOSSES (Water Supp	lied - Authorized Consumption)		260.287	acre-ft/yr		······ value
Apparent Losses	l la suita sia sul sussumissas.	. 2	0.000	81	Pont:	Value:
Default	Unauthorized consumption: option selected for unauthorized con-			acre-ft/yr	0.25%	acre-ft/yr
	Customer metering inaccuracies:		13.999		0.50%	acre-ft/yr
	Systematic data handling errors:			acre-ft/yr	0.25% ((acre-ft/yr
Defa	ult option selected for Systematic dat				ed	
	Apparent Losses:	?	29.049	acre-ft/yr		
Real Losses (Current Annual	Real Losses or CARL)					
	s = Water Losses - Apparent Losses:	?	231.238	acre-ft/yr		
	WATER LOSSES:		260.287	acre-ft/yr		
NON-REVENUE WATER						
	NON-REVENUE WATER:	?	267.897	acre-ft/yr		
= Water Losses + Unbilled Metered SYSTEM DATA	+ Unbilled Unmetered					
3131EW DATA	Length of mains:	+ ? 9	203.0	miles		
Number of <u>a</u>	ctive AND inactive service connections:		7,794			
	Service connection density:	?	38	conn./mile main		
	located at the curbstop or property line?		Yes	(length of service lii	ne, beyond the property	
	Average length of customer service line: th of customer service line has been s		d a data grading score		ne responsibility of the utility)
	Average operating pressure:		60.0			
COST DATA						
	annual cost of operating water system:		\$9,332,446			
	I unit cost (applied to Apparent Losses): roduction cost (applied to Real Losses):			\$/100 cubic feet (ccf) \$/acre-ft Use Cu	ustomer Retail Unit Cost to valu	ue real losses
, a	,·		7.25.			
WATER AUDIT DATA VALIDITY	SCORE.					
WHEN NOBIL BATTA WEIGHT		** VOLID SCO	RE IS: 59 out of 100 **	:*		
	reighted scale for the components of consun	nption and water	r loss is included in the ca	alculation of the Water Audit D	Data Validity Score	
PRIORITY AREAS FOR ATTENT	ION:					
	, audit accuracy can be improved by address	sing the followin	g components:			
1: Volume from own sources						
2: Customer metering inaccur	acies					
3: Billed metered						





Unbilled metered

AWWA Free Water Audit Software: User Comments

American Water Works Association. Copyright © 2014, All Rights Reserved.

Use this works	sheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.
General Comment:	Prepared by: Emily Reynolds and Paul Lord. Find complete workbook with calculations, derivations and comments in the filepathway: J:\Water System # 2710017 Demand\Annual Water System Stats\Water System Stats 2017\2017 Water Loss Audit\2017 Water Loss Data\2017 Audit Calculations (CURRENT DATE)
Audit Item	Comment
Volume from own sources:	MCWD has 8 wells, 7 of which are active. MCWD used well production numbers to determine total water extracted. The data is reported by O&M department. They produced a 2017 well production summary report in acre feet. MCWD extracted 3238 acre feet for the 2017 calenday year. File Pathway: P:\2017 Well Production\Prod. sum
	The Master meter & supply error calculations are outsources from Craig Evans Pumping Service. MCWD determined the total meter error for all active wells to be (under) reporting by 12.708 acre feet. For suporting calculations see: 2017 Audit Calculations Workbook.
Water imported:	The MCWD does not import any water into their system. MCWD has an emergency connection with Cal Am. Rarely used. 1 direction (to Marina). Not actively metered.
Water imported: master meter error adjustment:	The emergency connection with Cal AM is not metered and has not been used during the 2017 calendar year.
Water exported:	The MCWD does not export any water into their system. All water is produced and distributed within the Marina Coast Water District service area.
Water exported: master meter error adjustment:	N/A The MCWD does not have systems installed for exporting to other agencies.
Billed metered:	Billed Metered Consumption for 2017 adjusted for Lag Time by + 51 AF.
Billed unmetered:	In 2017 288 previously unmetered army housing units were metered. The estimate of billed unmetered consumption varies from month to month reducing some each month. For this report, only the number of active accounts each month were multiplied by a water use factor of 0.28 AF/YR divided by twelve months in a year. The total estimated billed unmetered water use is 190.59 AF.

water consumed by the utility itself in treatment or distribution operations. = 5.09 AF

Metered consumption which is authorized by the water utility, but, for any reason, is deemed by utility policy to be unbilled. This might for example include metered

Audit Item	Comment
<u>Unbilled unmetered:</u>	Fire fighting and practice drill water use is reported to us at 1.29 AF. Operations department estimates and records losses due to water main breaks. Marina 36 Units, Ord at 332 Units = 0.845 AF Water used for flushing mains, Marina 84 Units. Water used for flushing Ord, 82 Units = 0.38 AF which all together equals 2.50 AF
<u>Unauthorized consumption:</u>	This was derived automatically from the AWWA water loss audit software.
Customer metering inaccuracies:	The MCWD does not have a system in place to test for customer meter inaccuracies. Meters were upgrades to AMR in 2004-2005. Accuracy assumed to still be +/-0.5%
Systematic data handling errors:	The MCWD has not yet gathered detailed data or assesed the systematic data error. It's applying the default value of 0.25% of of the billing authorized consumtion volume.
Length of mains:	The data was sent in email from James Derbin estimating 203 miles of mains. This should be derrived from the GIS system / Geo-database. As of May 2017 the MCWD can only estimate this number.
Number of active AND inactive service connections:	per connection so there are 1376 shared connections to the mains in Marina. Then there are the additional 1179 water services that do not share a connection to the main. All together in Marina there are 2555 connections to the main. All 1872 military housing units share a connection. Therefore there are 936 shared connections for these homes. The other 2473 water services have a single connection. Combined, less fire connections, in the Ord community there are 3409
Average length of customer service line:	20' customer meters are typically located at the property boundary
Average operating pressure:	operating pressure is calculated by the sum of all zones devided by the 5 zones to equal 60.0 PSI. 5 pressure zones (Ord) & 2 in Marina controlled by PRVs. Hydrant pressures taken during routine system flushing and/or hydrant testing. Basic - telemetry or pressure logging at boundary points (supply locations, tanks, PRVs, boosters).
Total annual cost of operating water system:	Input derivation: From official financial reports. Comments: Confirmed costs limited to water only, and water debt service included.
Customer retail unit cost (applied to Apparent Losses):	Total consumptive revenue divided by Billed Metered Authorized Consumption. Sewer charges are not based on water meter readings. Sewer revenues are not applicable. Rate structures are different for Marina & Ord systems, but were combined in the calculation. Weighted average composite of all rates.
Variable production cost (applied to Real Losses):	Characterization of calculation: Primary costs only. Calculation conducted for Marina and Ord separately and then weighted by volume produced for each system.

		AW	/WA Free Wa	ter Audit Software: <u>Wate</u>		WAS v5.0
			iter Audit Report for: Reporting Year: Data Validity Score:		/) 1/2017 - 12/2017	
		Water Exported 0.000			Billed Water Exported	Revenue Water 0.000
				Billed Authorized Consumption	Billed Metered Consumption (water exported is removed) 2,780.740	Revenue Water
Own Sources (Adjusted for known			Authorized Consumption	2,971.330	Billed Unmetered Consumption 190.590	2,971.330
errors)			2,978.940	Unbilled Authorized Consumption	Unbilled Metered Consumption 5.090	Non-Revenue Water (NRW)
3,239.227				7.610	Unbilled Unmetered Consumption 2.520	
	System Input 3,239.227	Water Supplied 3,239.227		Apparent Losses 29.049	Unauthorized Consumption 8.098 Customer Metering Inaccuracies	267.897
			Water Losses		Systematic Data Handling Errors 6.952	
Water Imported 0.000			260.287	Real Losses 231.238	Leakage on Transmission and/or Distribution Mains Not broken down Leakage and Overflows at Utility's Storage Tanks	
					Not broken down Leakage on Service Connections Not broken down	



	AWWA Free Water Audit Software: Grading Matrix American Water Works Association. Copyright © 2014, All Rights Reserved. WAS 5.0 American Water Works Association. Copyright © 2014, All Rights Reserved.												
	The	grading assigned to each aud	dit component and the corresp	onding recomme	nded improvements and action	ns are highlighted	in yellow. Audit accuracy is likel	ly to be improve	d by prioritizing those items sho	wn in red			
Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10		
		•	-			WATER SUPPLIE	D		•	•			
Volume from own sources:	Select this grading only if the water utility purchases/imports all of its water resources (i.e. has no sources of its own)	Less than 25% of water production sources are metered, remaining sources are estimated. No regular meter accuracy testing or electronic calibration conducted.	25% - 50% of treated water production sources are metered; other sources estimated. No regular meter accuracy testing or electronic calibration conducted.	Conditions between 2 and 4	50% - 75% of treated water production sources are metered, other sources estimated. Occasional meter accuracy testing or electronic calibration conducted.	Conditions between 4 and 6	At least 75% of treated water production sources are metered, or at least 90% of the source flow is derived from metered sources. Meter accuracy testing and/or electronic calibration of leated instrumentation is conducted annually. Less than 25% of tested meters are found outside of +/-6% accuracy.	Conditions between 6 and 8	100% of treated water production sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted annually, less than 10% of meters are found outside of +/- 6% accuracy	Conditions between 8 and 10	100% of treated water production sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted semi-annually, with less than 10% found outside of +/- 3% accuracy. Procedures are reviewed by a third party knowledgeable in the M36 methodology.		
Improvements to attain higher data grading for "Volume from own Sources" component:		to qualify for 2: Organize and launch efforts to collect data for determining volume from own sources	to qualify for 4: Locate all water production sources field, launch meter accuracy testing begin to install meters on unmetere sources and replace any obsolete	for existing meters, d water production	to qualify for 6 Formalize annual meter accuracy meters; specify the frequency of installation of meters on unmeter sources and complete replacement of meters.	testing for all source testing. Complete ed water production	to qualify for 8: Conduct annual meter accuracy testin related instrumentation on all meter regular basis. Complete project to insidefective existing, meters so that entir population is metered. Repair or replae */- 6% accuracy.	installations on a stall new, or replace re production meter	Maintain annual meter accuracy tes related instrumentation for all meter replace meters outside of +/- 3% accument technology; pilot one or mon innovative meters in attempt to fu accuracy.	sting and calibration of installations. Repair or suracy. Investigate new re replacements with	to maintain 10: Standardize meter accuracy test frequency to semi-annual, or more frequent, for all meters. Repair or replace meters outside of +/- 3% accuracy. Continually investigate/pilot improving metering technology.		
Volume from own sources master meter and supply error adjustment:	Select n/a only if the water utility fails to have meters on its sources of supply	Inventory information on meters and paper records of measured volumes exist but are incomplete and/or in a very crude condition; data error cannot be determined	No automatic datalogging of production volumes; daily readings are scribed on paper records without any accountability controls. Flows are not balanced across the water distribution system: tank/storage elevation changes are not employed in calculating the "Volume from own sources" component and archived flow data is adjusted only when grossly evident data error occurs.	Conditions between 2 and 4	Production meter data is logged automatically in electronic format and reviewed at least on a monthly basis with necessary corrections implemented. "Volume from own sources' tabulations include estimate of daily changes in tank/sistorage facilities. Meter data is adjusted when gross data errors occur, or occasional meter testing deems this necessary.	Conditions between 4 and 6	Hourly production meter data logged automatically & reviewed on at least a weekly hasis. Data is adjusted to correct gross error when meter/instrumentation equipment malfunction is detected; and/or error is confirmed by meter accuracy testing. Tank/storage facility elevation changes are automatically used in calculating a balanced "Volume from own sources" component, and data gaps in the archived data are corrected on at least a weekly basis.	Conditions between 6 and 8	Continuous production meter data is logged automatically & reviewed each business day. Data is adjusted to correct gross error from detected meter/instrumentation equipment maifunction and/or results of meter accuracy testing. Tank/storage facility elevation changes are automatically used in "Volume from own sources" tabulations and data gaps in the archived data are corrected on a daily basis.	Conditions between 8 and 10	Computerized system (SCADA or similar) automatically balances flows from all sources and storages; results are reviewed each business day. Tight accountability controls ensure that all data gaps that occur in the archived flow data are quickly detected and corrected. Regular calibrations between SCADA and sources meters ensures minimal data transfer error.		
Improvements to attain higher data grading for "Master meter and supply error adjustment" component:		to qualify for 2: Develop a plan to restructure recordkeeping system to capture all flow data; set a procedure to review flow data on a daily basis to detect input errors. Obtain more reliable information about existing meters by conducting field inspections of meters and related instrumentation, and obtaining manufacturer literature.	to qualify for 4: Install automatic dataloging equipmeters. Complete installation of leval tanks/storage facilities and included automatic calculation routine in a co-Construct a computerized listing archive input volumes, tank/storage import/export flows in order to deter "Water Supplied" volume for the dist a procedure to review this day a procedure to review this day and detect gross anomalies and	el instrumentation at le tank level data in mputerized system. or spreadsheet to volume changes and mine the composite ribution system. Set a monthly basis to	to qualify for 6 Refine computerized data collection hourly production meter data that is weakly basis to detect specific data Use daily net storage change to bais "Water Supplied" volume. Necess errors are implemented on a	and archive to include reviewed at least on a anomalies and gaps. nce flows in calculating any corrections to data	to qualify for 8: Ensure that all flow data is collected least an hourly basis. All data is revie errors corrected each business day. variations are employed in calculating Supplied' component. Adjust produc gross error and inaccuracy confire	ewed and detected Tank/storage levels g balanced "Water ction meter data for	Link all production and tank/storage data to a Supervisory Control & Dats System, or similar computerized mor and establish automatic flow and regularly calibrate between SCADA are is reviewed and corrected each is reviewed and corrected each standard contracted each sta	facility elevation change a Acquisition (SCADA) nitoring/control system, ncing algorithm and nd source meters. Data	to maintain 10: Monitor meter innovations for development of more accurate and less expensive flowmeters. Continue to replace or repair meters as they perform outside of desired accuracy limits. Stay abreast of new and more accurate water level instruments to better record tank/storage levels and archive the variations in storage volume. Keep current with SCADA and data management systems to ensure that archived data is well-managed and error free.		
Water Imported:	Select n/a if the water utility's supply is exclusively from its own water resources (no bulk purchased/ imported water)	Less than 25% of imported water sources are metered, remaining sources are estimated. No regular meter accuracy testing.	25% - 50% of imported water sources are metered; other sources estimated. No regular meter accuracy testing.	Conditions between 2 and 4	50% - 75% of imported water sources are metered, other sources estimated. Occasional meter accuracy testing conducted.	Conditions between 4 and 6	At least 75% of imported water sources are metered, meter accuracy testing and/or electronic calibration of related instrumentation is conducted annually for all meter installations. Less than 25% of tested meters are found outside of +/- 6% accuracy.	Conditions between 6 and 8	100% of imported water sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted annually, less than 10% of meters are found outside of +/- 6% accuracy	Conditions between 8 and 10	100% of imported water sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted semi-annually for all meter installations, with less than 10% of accuracy tests found outside of +/- 3% accuracy.		

0 15 111		T .	1				1 -		Т	г .	
Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Improvements to attain higher data grading for "Water Imported Volume" component: (Note: usually the water supplier selling the water-'the Exporter' to the utility being audited is responsible to maintain the metering installation measuring the imported volume. The utility should coordinate carefully with the Exporter to ensure that adequate meter upkeep takes place and an accurate measure of the Water Imported volume is quantified.)		to qualify for 2: Review bulk water purchase agreements with partner suppliers; confirm requirements for use and maintenance of accurate metering, identify needs for new or replacement meters with goal to meter all imported water sources.	To qualify for 4: Locate all imported water sources on maps and in the field, launch meter accuracy testing for existing meters, begin to install meters on unmetered imported water interconnections and replace obsolete/defective meters.		to qualify for 6: Formalize annual meter accuracy testing for all imported water meters, planning for both regular meter accuracy testing and calibration of the related instrumentation. Continue installation of meters on unmetered imported water interconnections and replacement of obsolete/defective meters.		to qualify for 8: Complete project to install new, or replace defective, meters on all imported water interconnections. Maintain annual meter accuracy testing for all imported water meters and conduct calibration of related instrumentation at least annually. Repair or replace meters outside of +/- 6% accuracy.		annual basis, along with calibration of all related		to maintain 10: Standardize meter accuracy test frequency to semi-annual, or more frequent, for semi-annual, or more frequent, for all meters. Continue to conduct calibration of related instrumentation on a semi-annual basis. Repair or replace meters outside of +/- 3% accuracy. Continually investigate/pilot improving metering technology.
Water imported master meter and supply error adjustment:	Select n/a if the Imported water supply is unmetered, with Imported water quantities estimated on the billing invoices sent by the Exporter to the purchasing Utility.	Inventory information on imported meters and paper records of measured volumes exist but are incomplete and/or in a very crude condition; data error cannot be determined Written agreement(s) with water Exporter(s) are missing or written in vague language concerning meter management and testing.	No automatic datalogging of imported supply volumes; daily readings are scribed on paper records without any accountability controls to confirm data accuracy and the absence of errors and data gaps in recorded volumes. Written agreement requires meter accuracy testing but is vague on the details of how and who conducts the testing.	nditions between 2 and 4	Imported supply metered flow data is logged automatically in electronic format and reviewed at least on a monthly basis by the Exporter with necessary corrections implemented. Meter data is adjusted by the Exporter when gross data errors are detected. A coherent data trail exists for this process to protect both the selling and the purchasing Utility. Written agreement exists and clearly states requirements and roles for meter accuracy testing and data management.	Conditions between 4 and 6	Hourly Imported supply metered data is logged automatically & reviewed on at least a weekly basis by the Exporter. Data is adjusted to correct gross error when meter/instrumentation equipment malfunction is detected; and to correct for error confirmed by meter accuracy testing. Any data gaps in the archived data are detected and corrected during the weekly review. A coherent data trail exists for this process to protect both the selling and the purchasing Utility.		Continuous imported supply metered flow data is logged automatically & reviewed each business day by the Exporter. Data is adjusted to correct gross error from detected meter/instrumentation equipment malfunction and/or results of meter accuracy testing. Any data errors/gaps are detected and corrected on a daily basis. A data trail exists for the process to protect both the selling and the purchasing Utility.	Conditions between 8 and 10	Computerized system (SCADA or similar) automatically records data which is reviewed each business day by the Exporter. Tight accountability controls ensure that all error/data gaps that occur in the archived flow data are quickly detected and corrected. A reliable data trail exists and contract provisions for meter testing and data management are reviewed by the selling and purchasing Utility at least once every five years.
Improvements to attain higher data grading for "Water inported master meter and supply error adjustment" component:		to qualify for 2: Develop a plan to restructure recordkeeping system to capture all flow data; set a procedure to review flow data on a daily basis to detect input errors. Obtain more reliable information about existing meters by conducting field inspections of meters and related instrumentation, and obtaining manufacturer literature. Review the written agreement between the selling and purchasing Utility.	supply meters. Set a procedure to review monthly basis to detect gross anomalies a Launch discussions with the Exporters to terms of the written agreements regarding	Install automatic datalogging equipment on Imported supply meters. Set a procedure to review this data on a R monthly basis to detect gross anomalies and data gaps. Launch discussions with the Exporters to jointly review a irms of the written agreements regarding meter accuracy testing and data management; revise the terms as		and archive to include data that is reviewed pecific data anomalies citions to errors/data aasis.	to qualify for 8: Ensure that all Imported supply me collected and archived on at least an h is reviewed and errors/data gaps ar business day.	ourly basis. All data	Conduct accountability checks to supply metered data is reviewed and c day by the Exporter. Results of all m data corrections should be available Exporter and the purchasing Utility. E a regular review and updating of the the written agreement between the se Utility; at least every fix	onfirm that all Imported corrected each business eter accuracy tests and for sharing between the Establish a schedule for contractual language in Illing and the purchasing	to maintain 10: Monitor meter innovations for development of more accurate and less expensive flowmeters; work with the Exporter to help identify meter replacement needs. Keep communication lines with Exporters open and maintain productive relations. Keep the written agreement current with clear and explicit language that meets the ongoing needs of all parties.
Water Exported:	Select n/a if the water utility sells no bulk water to neighboring water utilities (no exported water sales)	Less than 25% of exported water sources are metered, remaining sources are estimated. No regular meter accuracy testing.	25% - 50% of exported water sources are metered; other sources estimated. No regular meter accuracy testing.	nditions between 2 and 4	50% - 75% of exported water sources are metered, other sources estimated. Occasional meter accuracy testing conducted.	Conditions between 4 and 6	At least 75% of exported water sources are metered, meter accuracy testing and/or electronic calibration conducted annually. Less than 25% of tested meters are found outside of +/- 6% accuracy.	Conditions between 6 and 8	100% of exported water sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted annually, less than 10% of meters are found outside of +/- 6% accuracy	Conditions between 8 and 10	100% of exported water sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted semi-annually for all meter installations, with less than 10% of accuracy tests found outside of +/- 3% accuracy.
Improvements to attain higher data grading for "Water Exported Volume" component: (Note: usually, if the water utility being audited sells (Exports) water to a neighboring purchasing Utility, it is the responsibility of the utility exporting the water to maintain the metering installation measuring the Exported volume. The utility exporting the water should ensure that adequate meter upkeep takes place and an accurate measure of the Water Exported volume is quantified.)		to quality for 2: Review bulk water sales agreements with purchasing utilities; confirm requirements for use & upkeep of accurate metering, Identify needs to install new, or replace defective meters as needed.	To qualify for 4: Locate all exported water sources on mal launch meter accuracy testing for existing to install meters on unmetered expor interconnections and replace obsolete/de	g meters, begin orted water	to qualify for 6: Formalize annual meter accuracy te water meters. Continue installation of exported water interconnections a obsolete/defective m	esting for all exported f meters on unmetered and replacement of	to qualify for 8: Complete project to install new, or replice on all exported water interconnection meter accuracy testing for all expor Repair or replace meters outside of	s. Maintain annual ted water meters.	to qualify for 10 Maintain annual meter accuracy testin or replace meters outside of +/- 3% new meter technology; pilot one or n innovative meters in attempt to imp	ng for all meters. Repair accuracy. Investigate nore replacements with	to maintain 10: Standardize meter accuracy test frequency to semi-annual, or more frequent, for all meters. Repair or replace meters outside of 1/1.3% accuracy. Continually investigate/pilot improving metering technology.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Water exported master meter and supply error adjustment:	Select n/a only if the water utility fails to have meters on its exported supply interconnections.	Inventory information on exported meters and paper records of measured volumes exist but are incomplete and/or in a very crude condition; data error cannot be determined Written agreement(s) with the utility purchasing the water are missing or written in vague language concerning meter management and testing.	No automatic datalogging of exported supply volumes; daily readings are scribed on paper records without any accountability controls to confirm data accuracy and the absence of errors and data gaps in recorded volumes. Written agreement requires meter accuracy testing but is vague on the details of how and who conducts the testing.		Exported metered flow data is logged automatically in electronic format and reviewed at least on a monthly basis, with necessary corrections implemented. Meter data is adjusted by the utility selling (exporting) the water when gross data errors are detected. A coherent data trail exists for this process to protect both the utility exporting the water and the purchasing Utility. Written agreement exists and clearly states requirements and roles for meter accuracy testing and data management.	Conditions between 4 and 6	Hourly exported supply metered data is logged automatically & reviewed on at least a weekly basis by the utility selling the water. Data is adjusted to correct gross error when meter/instrumentation equipment mailfunction is detected; and to correct for error found by meter accuracy testing. Any data gaps in the archited data are detected and corrected during the weekly review. A coherent data trail exists for this process to protect both the selling (exporting) utility and the purchasing Utility.	Conditions between 6 and 8	Continuous exported supply metered flow data is logged automatically & reviewed each business day by the utility selling (exporting) the water. Data is adjusted to correct gross error from detected meter/instrumentation equipment maifunction and any error confirmed by meter accuracy testing. Any data errors/gaps are detected and corrected on a daily basis. A data trail exists for the process to protect both the selling (exporting) Utility and the purchasing Utility.	Conditions between 8 and 10	Computerized system (SCADA or similar) automatically records data which is reviewed each business day by the utility selling (exporting) the water. Tight accountability controls ensure that all error/data gaps that occur in the archived flow data are quickly detected and corrected. A reliable data trail exists and contract provisions for meter testing and data management are reviewed by the selling Utility and purchasing Utility at least once every five years.
Improvements to attain higher data grading for "Water exported master meter and supply error adjustment" component:		to qualify for 2: Develop a plan to restructure recordkeeping system to capture all flow data; set a procedure to review flow data on a daily basis to detect input errors. Obtain more reliable information about existing meters by conducting field inspections of meters and related instrumentation, and obtaining manufacturer literature. Review the written agreement between the utility selling (exporting) the water and the purchasing Utility.	to qualify for 4: Install automatic datalogging equip supply meters. Set a procedure to romothly basis to detect gross anom Launch discussions with the purcha review terms of the written agreeme accuracy testing and data managem as necessary.	review this data on a alies and data gaps. sing utilities to jointly ints regarding meter	to qualify for 6 Refine computerized data collection hourly exported supply metered flow least on a weekly basis to detect sy and gaps. Make necessary corre errors on a weekly l	and archive to include data that is reviewed at ecific data anomalies ctions to errors/data	to qualify for 8: Ensure that all exported metered flow archived on at least an hourly basis. and errors/data gaps are corrected 6	All data is reviewed	Conduct accountability checks to co metered flow data is reviewed and co day by the utility selling the water. accuracy lests and data corrections sharing between the utility and the Establish a schedule for a regular revi	nfirm that all exported rrected each business Results of all meter should be available for e purchasing Utility. ew and updating of the agreements with the	to maintain 10: Monitor meter innovations for development of more accurate and less expensive flowmeters; work with the purchasing utilities to help identify meter replacement needs. Keep communication lines with the purchasing utilities open and maintain productive relations. Keep the written agreement current with clear and explicit language that meets the ongoing needs of all parties.
AUTHORIZED CONSUMPTION											
Billed metered:	n/a (not applicable). Select n/a only if the entire customer population is not metered and is billed for water service on a flat or fixed rate basis. In such a case the volume entered must be zero.	Less than 50% of customers with volume-based billings from meter readings, flat or fixed rate billing exists for the majority of the customer population	At least 50% of customers with volume-based billing from meter reads; flat rate billing for others. Manual meter reading is conducted, with less than 50% meter read success rate, remainding accounts consumption is estimated. Limited meter records, no regular meter testing or replacement. Billing data maintained on paper records, with no auditing.	Conditions between 2 and 4	At least 75% of customers with volume-based, billing from meter reads, flat or fixed rate billing for remaining accounts. Manual meter reading is conducted with at least 50% meter read success rate; consumption for accounts with falled reads is estimated. Purchase records verify age of customer meters; only very limited meter accuracy testing is conducted. Customer meters are replaced only upon complete failure. Computerized billing records exist, but only sporadic internal auditing conducted.	Conditions between 4 and 6	At least 90% of customers with volume-based billing from meter reads; consumption for remaining accounts is estimated. Manual customer meter reading gives at least 80% customer meter reading success rate; consumption for accounts with failed reads is estimated. Good customer meter records ebst, but only limited meter accuracy testing is conducted. Regular replacement is conducted for the oldest meters. Computerized billing records exist with annual auditing of summary statistics conducting by utility personnel.	Conditions between 6 and 8	At least 97% of customers exist with volume-based billing from meter reads. At least 90% customer meter reading success rate, or at least 80% read success rate with planning and budgeting for trials of Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) in one or more pilot areas. Good oustomer meter records. Regular meter accuracy testing guides replacement of statistically significant number of meters each year. Routine auditing of computerized billing records for global and detailed statistics occurs, and is verified by third party at least once every five years.	Conditions between 8 and 10	At least 99% of customers exist with volume-based billing from meter reads. At least 95% customer meter reading success rate, or minimum 80% meter reading success rate, with Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) trials underway. Statistically significant customer meter testing and replacement program in place on a continuous basis. Computerized billing with routtle, detailed auditing, including field investigation of representative sample of accounts undertaken annually by utility personnel. Audit is conducted by third party auditors at least once every three years.
Improvements to attain higher data grading for "Billed Metered Consumption" component:	If n/a is selected because the customer meter population is unmetered, consider establishing a new policy to meter the customer population and employ water rates based upon metered volumes.	to qualify for 2: Conduct investigations or trials of customer meters to select appropriate meter models. Budget funding for meter installations. Investigate volume based water rate structures.	to qualify for 4: Purchase and install meters on uni Implement policies to improve mete Catalog meter information during ridentify age/model of existing meter number of meters for accuracy. In billing system.	er reading success. meter read visits to ers. Test a minimal	to qualify for 6 Purchase and install meters on u Eliminate flat fee billing and establish structure based upon measured con achieve verifiable success in remi reading barries. Expand meter acc regular meter replacement program. annual auditing of global billing statis	nmetered accounts. appropriate water rate sumption. Continue to oving manual meter uracy testing. Launch Launch a program of	to qualify for 8: Purchase and install meters on unm customer meter reading success rat assess cost-effectiveness of Autom (AMR) or Advanced Metering Infrastr for portion or entire system; or otherw improvements in manual meter read 97% or higher. Refine meter accura Set meter replacement goals based results. Implement annual auditing records by utility personnel and imp auditing at least once every	e is less than 97%, atic Meter Reading ucture (AMI) system ise achieve ongoing ing success rate to cy testing program. upon accuracy test of detailed billing element third party	Purchase and install meters on unmet Automatic Meter Reading (AMR) or Infrastructure (AMI) system trials if n success rate of at least 99% is not act program. Continue meter accura Conduct planning and budgeting f replacement based upon meter life cumulative flow target. Continue ann auditing by utility personnel and conduleast once every three	ered accounts. Launch Advanced Metering nanual meter reading lieved within a five-year cy testing program. or large scale meter cycle analysis using ual detailed billing data ct third party auditing at	to maintain 10: Continue annual internal billing data auditing, and third party auditing at least every three years. Conflune customer meter accuracy testing to ensure that accurate customer meter readings are obtained and entered as the basis for volume based billing. Stay abreast of improvements in Automatic Meter Reading (AMR) and Advanced Metering Infrastructure (AMI) and information management. Plan and budget for justified upgrades in metering, meter reading and billing data management to maintain very high accuracy in customer metering and billing.

Grading >>>	n/a	1	2	3	4	5	I 6	7	l 8		10
Grading >>>	n/a	1	2	3	4	5	6	/	8	9	10
Billed unmetered:	Select n/a if it is the policy of the water utility to meter all customer connections and it has been confirmed by detailed auditing that all customers do indeed have a water meter; i.e. ho intentionally unmetered accounts exist	Water utility policy does <u>not</u> require customer metering: flat or fixed fee billing is employed. No data is collected on customer consumption. The only estimates of customer population consumption available are derived from data estimation methods using average fixture count multiplied by number of connections, or similar approach.	Water utility policy does not require customer metering; flat or fixed fee billing is employed. Some metered accounts exist in parts of the system (pilot areas or District Metered Areas) with consumption read periodically or recorded on portable dataloggers over one, three, or seven day periods. Data from these sample meters are used to infer consumption for the total customer population. Site specific estimation methods are used for unusual buildings/water uses.	Conditions between 2 and 4	Water utility policy does require metering and volume based billing in general. However, aliberal amount of exemptions and a lack of clearly written and communicated procedures result in up to 20% of billed accounts believed to be unmetered by exemption; or the water utility is in transition to becoming fully metered, and a large number of oustomers remain unmetered. A rough estimate of the annual consumption for all unmetered accounts is included in the annual vosumption for all unmetered accounts.	Conditions between 4 and 6	Water utility policy does require metering and volume based billing but established exemptions exist for a portion of accounts such as municipal buildings. As many as 15% of billed accounts are unmetered due to this exemption or meter installation difficulties. Only a group estimate of annual consumption for all unmetered accounts is included in the annual water audit, with no inspection of individual unmetered accounts.	Conditions between 6 and 8	Water utility policy does require metering and volume based billing for all customer accounts. However, less than 5% of billed accounts remain unmetered because meter installation is hindered by unusual circumstances. The goal is to minimize the number of unmetered accounts. Reliable estimates of consumption are obtained for these unmetered accounts via site specific estimation methods.	Conditions between 8 and 10	Water utility policy does require metering and volume based billing for all customer accounts. Less than 2% of billed accounts are unmetered and exist because meter installation is hindreed by unusual circumstances. The goal exists to minimize the number of unmetered accounts to the extent that is economical. Reliable estimates of consumption are obtained at these accounts via site specific estimation methods.
Improvements to attain higher data grading for "Billed Unmetered Consumption" component:		to qualify for 2: Conduct research and evaluate cost/benefit of a new water utility policy to require metering of the customer population; thereby greatly reducing or eliminating unmetered accounts. Conduct pilot metering project by installing water meters in small sample of customer accounts and periodically reading the meters or datalogging the water consumption over one, three, or seven day periods.	to qualify for 4: Implement a new water utility policy metering. Launch or expand pilot include several different meter types data for economic assessment of options. Assess sites with access c means to obtain water consumptio customer meter installs	metering study to s, which will provide full scale metering difficulties to devise on volumes. Begin	to qualify for 6: Refine policy and procedures to impr participation for all but solidly exem staff resources to review billing rec unmetered properties. Specify meter requirements to install sufficient mete the number of unmetered	ove customer metering pt accounts. Assign ords to identify errant ring needs and funding ers to significant reduce	to qualify for 8: Push to install customer meters on Refine metering policy and procedur accounts, including municipal propertie meters. Plan special efforts to addres accounts. Implement procedures t consumption estimate for the remain accounts awaiting meter in:	es to ensure that all es, are designated for es "hard-to-access" o obtain a reliable ing few unmetered	to qualify for 1.1 Continue customer meter installation area, with a goal to minimize unmete the effort to investigate accounts with devise means to install water meters water consumpti	throughout the service ered accounts. Sustain access difficulties, and or otherwise measure	to maintain 10: Continue to refine estimation methods for unmetered consumption and explore means to establish metering, for as many billed remaining unmetered accounts as is economically feasible.
Unbilled metered:	select n/a if all billing- exempt consumption is unmetered.	Billing practices exempt certain accounts, such as municipal buildings, but written policies do not exist, and a reliable count of unbilled metered accounts is unavailable. Meter upkeep and meter reading on these accounts is rare and not considered a priority. Due to poor recordkeeping and lack of auditing, water consumption for all such accounts is purely guesstimated.	Billing practices exempt certain accounts, such as municipal buildings, but only scattered, dated written directives exist to justify this practice. A reliable count of unbilled metered accounts is unavailable. Sporadic meter replacement and meter reading occurs on an asneeded basis. The total annual water consumption for all unbilled, metered accounts is estimated based upon approximating the number of accounts and assigning consumption from actively billed accounts of same meter size.	Conditions between 2 and 4	Dated written procedures permit billing exemption for specific accounts, such as municipal properties, but are unclear regarding certain other types of accounts. Meter reading is given low priority and is sporadic. Consumption is quantified from meter readings where available. The total number of unbilled, unmetered accounts must be estimated along with consumption volumes.	Conditions between 4 and 6	Written policies regarding billing exemptions exist but adherence in practice is questionable. Metering and meter reading for municipal buildings is reliable but sporadic for other unbilled metered accounts. Periodic auditing of such accounts is conducted. Water consumption is quantified directly from meter readings where available, but the majority of the consumption is estimated.	Conditions between 6 and 8	Written policy identifies the types of accounts granted a billing exemption. Customer meter management and meter reading are considered secondary priorities, but meter reading is conducted at least annually to obtain consumption volumes for the annual water audit. High level auditing of billing records ensures that a reliable census of such accounts exists.	Conditions between 8 and 10	Clearly written policy identifies the types of accounts given a billing exemption, with emphasis on keeping such accounts to a minimum. Customer meter management and meter reading for these accounts is given proper priority and is reliably conducted. Regular auditing confirms this. Total water consumption for these accounts is taken from reliable readings from accurate meters.
Improvements to attain higher data grading for "Unbilled Metered Consumption" component:		to <u>qualify for 2</u> : Reassess the water utility's policy allowing certain accounts to be granted a billing exemption. Draft an outline of a new written policy for billing exemptions, with clear justification as to why any accounts should be exempt from billing, and with the intention to keep the number of such accounts to a minimum.	to qualify for 4: Review historic written directives and allowing certain accounts to be billing outline of a written policy for billing e criteria that grants an exemption, with this number of accounts to a minimicreasing the priority of reading in accounts at least anni	g-exempt. Draft an exemptions, identify th a goal of keeping imum. Consider neters on unbilled	to qualify for 6: Draft a new written policy regardin based upon consensus criteria alio Assign resources to audit meter reco to obtain census of unbilled meterec include a greater number of these m routes for regular meter	wing this occurrence. ords and billing records d accounts. Gradually etered accounts to the	to qualify for 8: Communicate billing exemption poli organization and implement procedure account management. Conduct insp confirmed in unbilled metered stat accurate meters exist and are schedul readings. Gradually increase the in metered accounts that are included reading routes.	s that ensure proper ections of accounts us and verify that led for routine meter umber of unbilled	Ensure that meter management (m meter replacement) and meter readi accounts are accorded the same pri Establish ongoing annual auditing j water consumption is reliably collect annual water audit pr	eter accuracy testing, ng activities for unbilled ority as billed accounts. process to ensure that ed and provided to the	to maintain 10: Reassess the utility sphilosophy in allowing any water uses to go "unbillied". It is possible to meter and bill all accounts, even if the fee charged for water consumption is discounted or walved. Metering and billing all accounts ensures that water consumption is tracked and water waste from plumbing leaks is detected and minimized.
Unbilled unmetered:		Extent of unbilled, unmetered consumption is unknown due to unclear policies and poor recordkeeping. Total consumption is quantified based upon a purely subjective estimate.	Clear extent of unbilled, unmetered consumption is unknown, but a number of events are randomly documented each year, confirming existence of such consumption, but without sufficient documentation to quantify an accurate estimate of the annual volume consumed.	Conditions between 2 and 4	Extent of unbilled, unmetered consumption is partially known, and procedures exist to document certain events such as miscellaneous fire hydrant uses. Formulae is used to quantify the consumption from such events (time running multiplied by typical flowrate, multiplied by number of events).	Default value of 1.25% of system input volume is employed	Coherent policies exist for some forms of unbilled, unmetered consumption but others await closer evaluation. Reasonable recordkeeping for the managed uses exists and allows for annual volumes to be quantified by inference, but unsupervised uses are guesstimated.	Conditions between 6 and 8	Clear policies and good recordkeeping exist for some uses (ex: water used in periodic testing of unmetered fire connections), but other uses (ex: miscellaneous uses of fire hydrants) have limited oversight. Total consumption is a mix of well quantified use such as from formulae (time running multiplied by typical flow, multiplied by number of events) or temporary meters, and realtively subjective estimates of less regulated use.	Conditions between 8 and 10	Clear policies exist to identify permitted use of water in unbilled, unmetered fashion, with the intention of minimizing this type of consumption. Good records document each occurrence and consumption is quantified via formulae (time running multiplied by typical flow, multiplied by number of events) or use of temporary meters.

One die e a a a						-	1 .	-			40
Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Improvements to attain higher data grading for "Unbilled Unmetered Consumption" component:		to quality for 5: Utilize the accepted default value of 1.25% of the volume of water supplied as an expedient means to gain a reasonable quantification of this use. It is to be supplied to the supplied of the supplied one such use (ex. fire hydrant flushings).	inwater Utilize accepted default value of 1,25% of the volume of location of value supplied as an expedient means to gain a reasonable quantification of this use. Ing what observed. Meet with user groups (ex: for fire hydrants-metered. If edepartments, contractors to ascertain their need sample of jam'or volume requirements for water from fire hydrants).		to qualify for 5: Utilize accepted default value of 1,25% of the volume of water supplied as an expedient means to gain a reasonable quantification of all such use. This is particularly appropriate for water utilities who are in the early stages of the water auditing process, and should focus on other components since the volume of unbilled, umetered consumption is usually a relatively small quality components should take priority.	to qualify for 6 or greater: In of Finalize policy and before the conduct field or are error extra final to the conduct field or are error extra final to the conduct field or are extra final to the conduct		to qualify for 10: Refine written procedures to ensure that all uses of unbilled, unmetered water are overseen by a structured permitting process managed by water utility personnel. Reassess policy to determine if some of these uses have value in being converted to billed and/or metered status.		to maintain 10: Continue to refine policy and procedures with intention of reducing the number of allowable uses of water in unbilled and unmetered fashion. Any uses that can feasibly become billed and metered should be converted eventually.	
	-				APPARENT I	LOSSES	_				
Unauthorized consumption:		Extent of unauthorized consumption is unknown due to unclear policies and poor recordkeeping. Total unauthorized consumption is guesstimated.	Unauthorized consumption is a known occurrence, but its extent is a mystery. There are no requirements to document observed events, but periodic field reports capture some of these occurrences. Total unauthorized consumption is approximated from this limited data.	conditions between 2 and 4	Procedures exist to document some unauthorized consumption such as observed unauthorized fire hydrant openings. Use formulae to quantify this consumption (time running multiplied typical flowrate, multiplied by number of events).	Default value of 0.25% of volume of water supplied is employed	Coherent policies exist for some forms of unauthorized consumption (more than simply fire hydrant misuse) but others await closer evaluation. Reasonable surveillance and recordkeeping exist for occurrences that fall under the policy. Volumes quantified by inference from these records.	Conditions between 6 and 8	Clear policies and good auditable recordkeeping exist for certain events (ex: tampering with water meters, illegal bypasses of customer meters); but other occurrences have limited oversight. Total consumption is a combination of volumes from formulae (time x typical flow) and subjective estimates of unconfirmed consumption.	Conditions between 8 and 10	Clear policies exist to identify all known unauthorized uses of water. Staff and procedures exist to provide enforcement of policies and detect violations. Each occurrence is recorded and quarified via formulae (estimated time running multiplied by typical flow) or similar methods. All records and calculations should exist in a form that can be audited by a third party.
Improvements to attain higher data grading for "Unauthorized Consumption" component		to qualify for 5: Use accepted default of 0.25% of volume of water supplied. Seview qualify for 2: Review qualify for 2: Review qualify one granding what water uses are considered unauthorized, and consider tracking a small sample of one such occurrence (ex: unauthorized fire hydrant openings)	to qualify for 5: Use accepted default of 0.25% of sy to qualify for 4: Review utility policy regarding wha considered unauthorized, and consistered unsuthorized, and consistered which will be such occurrence (experies of the such occurrence (experies of the such occurrence) and the such occurrence (experies of the such occurrence) and the such occurrence of the such occurrence o	at water uses are der tracking a small :: unauthorized fire	to qualify for 5: Utilize accepted default value of 0.25% of volume of water supplied as an expedient means to gain a reasonable quantification of all such use. This is particularly appropriate for water utilities who are in the early stages of the water auditing process.	to qualify for 6 or greater: Finalize policy indates to clearly identify the types of water consumption that are authorized from those usages that fall outside of this policy and are, therefore, unauthorized. Begin to conduct regular field checks. Proceed if the top-down audit already exists and/or a great volume of such use is suspected.	to quality for 8: Assess water utility policies to ensu- occurrences of unauthorized consum and that appropriate penalties are p- written procedures for detection and various occurrences of unauthorized c- are uncovered.	ption are outlawed, rescribed. Create documentation of	to qualify for 11 Refine written procedures and assign occurrences of unauthorized consulocking devices, monitors and other te detect and thwart unauthorize	n staff to seek out likely imption. Explore new echnologies designed to	to maintain 10: Continue to refine policy and procedures to eliminate any loopholes that allow or tacitly encourage unauthorized consumption. Continue to be vigilant in detection, documentation and enforcement efforts.
Customer metering inaccuracies:	select n/a only if the entire customer population is unmetered. In such a case the volume entered must be zero.	Customer meters exist, but with unorganized paper records on meters, no meter accuracy testing or meter replacement program for any size of retail meter. Metering workflow is driven chaobically with no proactive management. Loss volume due to aggregate meter inaccuracy is guesstimated.	Poor recordkeeping and meter oversight is recognized by water utility management who has allotted staff and funding resources to organize improved recordkeeping and start meter accuracy testing. Existing paper records gathered and organized to provide cursory disposition of meter population. Customer meters are tested for accuracy only upon customer request.	Conditions between 2 and 4	Reliable recordkeeping exists; meter information is improving as meters are replaced. Meter accuracy testing is conducted annually for a small number of meters (more than just customer requests, but less than 1% of inventory). A limited number of the oldest meters are replaced each year. Inaccuracy volume is largely an estimate, but refined based upon limited testing data.	Conditions between 4 and 6	A reliable electronic recordkeeping system for meters exists. The meter population includes a mix of new high performing meters and dated meters with suspect accuracy. Routine, but limited, meter accuracy testing and meter replacement occur. Inaccuracy volume is quantified using a mix of reliable and less certain data.	Conditions between 6 and 8	Ongoing meter replacement and accuracy testing result in highly accurate customer meter population. Testing is conducted on samples of meters of varying age and accumulated volume of throughput to determine optimum replacement time for various types of meters.	Ongoing meter replacement and accuracy testing result in highly accurate customer meter population. Statistically significant number of meters are tested in audit year. This testing is conducted on samples of meters of varying age and accumulated volume of throughput to determine optimum replacement time for these meters.	Good records of all active customer meters exist and include as a minimum: meter number, account number/location, type, size and manufacturer. Ongoing meter replacement occurs according to a targeted and justified basis. Regular meter accuracy testing gives a reliable measure of composite inaccuracy volume for the customer meter population. New metering technology is embraced to keep overall accuracy improving. Procedures are reviewed by a third party knowledgeable in the M36 methodology.

Grading >>>	n/a	1	2	3	4	5	6	7	l 8	9	10
Improvements to attain higher data grading for "Gustomer meter inaccuracy volume" component:	If n/a is selected because the customer meter population is unmetered, consider establishing a new policy to meter the customer population and employ water rates based upon metered volumes.	to qualify for 2: Gather available meter purchase records. Conduct testing on a small number of meters believed to be the most inaccurate. Review staffing needs of the metering group and budget for necessary resources to better organize meter management.	Implement a reliable record keeping sy meter histories, preferably using eler typically linked to, or part of, the Custor or Customer Information System. accuracy testing to a larger grou	stem for customer stronic methods mer Billing System Expand meter	to qualify for 6: Standardize the procedures for mete an electronic information system accuracy testing and meter replacem results.	: r recordkeeping within . Accelerate meter	to qualify for 8: Expand annual meter accuracy test statistically significant number of met Expand meter replacement program to significant number of poor performing	ting to evaluate a er makes/models. o replace statistically	to qualify for 9: Continue efforts to manage meter population with reliable recordkeeping. Test a statistically significant number of meters each year and analyze test results in an ongoing manner to serve as a basis for a target meter replacement strategy based upon accumulated volume throughput.	to qualify for 10: Continue efforts to manage meter population with reliable recordkeeping, meter testing and replacement. Evaluate new meter types and install one or more types in 5-10 customer accounts each year in order to pilot improving metering technology.	to maintain 10: Increase the number of meters tested and replaced as justified by meter accuracy test data. Continually monitor development of new metering technology and Advanced Metering Infrastructure (AMI) to grasp opportunities for greater accuracy in metering of water flow and management of customer consumption data.
Systematic Data Handling Errors:	Note: all water utilities incur some amount of this error. Even in water utilities with unmetered customer populations and fixed rate billing, errors occur in annual billing tabulations. Enter a positive value for the volume and select a grading.	Policies and procedures for activation of new customer water biling accounts are vague and lack accountability. Billing data is maintained on paper records which are not well organized. No auditing is conducted to confirm billing data handling efficiency. An unknown number of customers escape routine billing due to lack of billing process oversight.	Policy and procedures for activation of new customer accounts and oversight of billing records exist but need refinement. Billing data is maintained on paper records or insufficiently capable electronic database. Only periodic unstructured auditing work is conducted to confirm billing data handling efficiency. The volume of unbilled water due to billing lapses is a guess.	Conditions between 2 and 4	Policy and procedures for new account activation and oversight to billing operations exist but needs refinement. Computerized billing system exists, but is dated or lacks needed functionality. Periodic, limited internal audits conducted and confirm with approximate accuracy the consumption volumes lost to billing lapses.	Conditions between 4 and 6	Policy and procedures for new account activation and oversight of billing operations is adequate and reviewed periodically. Computerized billing system is in use with basic reporting available. Any effect of billing adjustments on measured consumption volumes is well understood. Internal checks of billing data error conducted annually. Reasonably accurate quantification of consumption volume lost to billing lapses is obtained.	Conditions between 6 and 8	New account activation and billing operations policy and procedures are reviewed at least biannually. Computerized billing system includes an array of replorts to confirm billing data and system functionality. Checks are conducted routinely to flag and explain zero consumption accounts. Annual internal checks conducted with third party audit conducted at least once every five years. Accountability checks flag billing lapses. Consumption lost to billing lapses is well quantified and reducing year-by-year.	Conditions between 8 and 10	Sound written policy and procedures exist for new account activation and oversight of oustomer billing operations. Robust computerized billing system gives high functionality and reporting capabilities which are utilized, analyzed and the results reported each billing cycle. Assessment of policy and data handling errors are conducted internally and audited by third party at least once every three years, ensuring consumption lost to billing lapses is minimized and detected as it occurs.
Improvements to attain higher data grading for "Systematic Data Handling Error volume" component:		to qualify for 2: Draft written policy and procedures for activating new water billing accounts and oversight of billing operations. Investigate and budget for computerized customer billing system. Conduct initial audit of billing records by flow-charding the basic business processes of the customer account/billing function.	to qualify for 4: Finalize written policy and procedures new billing accounts and overall bill management. Implement a computers system. Conduct initial audit of billing this process.	ling operations ed customer billing	to qualify for 6: Refine new account activation and billing operations procedures and ensure consistency with the utility policy regarding billing, and minimize opportunity for missed billings. Upgrade or replace customer billing system for needed functionality - ensure that billing adjustments don't corrupt the value of consumption volumes. Procedurize internal annual audit process.		Formalize regular review of new account activation proce and general billing practices. Enhance reporting capabili of computerized billing system. Formalize regular auditin process to reveal scope of data handling error. Plan for periodic third party audit to occur at least once every five years.		Close policy/procedure loopholes that allow some customer		to maintain 10: Stay abreast of customer information management developments and innovations. Monitor developments of Advanced Metering Infrastructure (AMI) and integrate technology to ensure that customer endpoint information is well-monitored and errors/lapses are at an economic minimum.
					SYSTEM	DATA					
Length of mains:		Poorly assembled and maintained paper as-built records of existing water main installations makes accurate determination of system pipe length impossible. Length of mains is guesstimated.	Paper records in poor or uncertain condition (no annual tracking of installations & abandonments). Poor procedures to ensure that new water mains installed by developers are accurately documented.	Conditions between 2 and 4	Sound written policy and procedures exist for documenting new water main installations, but gaps in management result in a uncertain degree of error in tabulation of mains length.	Conditions between 4 and 6	Sound written policy and procedures exist for permitting and commissioning new water mains. Highly accurate paper records with regular filed validation; or electronic records and asset management system in good condition. Includes system backup.	Conditions between 6 and 8	Sound written policy and procedures exist for permitting and commissioning new water mains. Electronic recordkeeping such as a Geographical Information System (GIS) and asset management system are used to store and manage data.	Conditions between 8 and 10	Sound written policy exists for managing water mains extensions and replacements. Geographic Information System (GIS) data and asset management database agree and random field validation proves truth of databases. Records of annual field validation should be available for review.
Improvements to attain higher data grading for "Length of Water Mains" component:		to qualify for 2: Assign personnel to inventory current as-built records and compare with customer billing system records and highway plans in order to verify poorly documented pipelines. Assemble policy documents regarding permitting and documentation of water main installations by the utility and building developers; identify gaps in procedures that result in poor documentation of new water main installations.	to qualify for 4: Complete inventory of paper record installations for several years prior to a policy and procedures for commi documenting new water main i	udit year. Review ssioning and	to qualify for 6 Finalize updates/improvements to procedures for permitting/commi installations. Confirm inventory of prior to audit year; correct any er	o written policy and ssioning new main records for five years	to qualify for 8: Launch random field checks of limited Convert to electronic database such Information System (GIS) with backup, written policy and proces	as a Geographic as justified. Develop	to qualify for 10 Link Geographic Information Syst management databases, conduct fic Record field verification informatic	em (GIS) and asset d verification of data.	to maintain 10: Continue with standardization and random field validation to improve the completeness and accuracy of the system.

Cradin	m/-			•				-	1 ^		40
Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Number of active AND inactive service connections:		Vague permitting (of new service connections) policy and poor paper recordkeeping of eustomer connections/billings result in suspect determination of the number of service connections, which may be 10-15% in error from actual count.	General permitting policy exists but paper records, procedural gaps, and weak oversight result in questionable total for number of connections, which may vary 5-10% of actual count.	Conditions between 2 and 4	Written account activation policy and procedures exist, but with some ages in performance and oversight. Computerized information management system is being brought online to replace dated paper recordkeeping system. Reasonably accurate tracking of service connection installations & abandonments; but count can be up to 5% in error from actual total.	Conditions between 4 and 6	Written new account activation and overall billing policies and procedures are adequate and reviewed periodically. Computerized information management system is in use with annual installations & abandonments totaled. Very limited field verifications and audits. Error in count of number of service connections is believed to be no more than 3%.	Conditions betweer 6 and 8	Policies and procedures for new account activation and overall billing operations are written, well-structured and reviewed at least bianually. Well managed computerized information management system exists and routine, periodic field checks and internal system audits are conducted. Counts of connections are no more than 2% in error.	Conditions between 8 and 10	Sound written policy and well managed and audited procedures ensure reliable management of service connection population. Computerized information management system, Customer Billing System, and Geographic Information System (GIS) information agree, field validation proves truth of databases. Count of connections recorded as being in error is less than 1% of the entire population.
Improvements to attain higher data grading for "Number of Active and Inactive Service Connections" component:	Note: The number of Service Connections does <u>not</u> include fire hydrant leads/lines connecting the hydrant to the water main	to qualify for 2: Draft new policy and procedures for new account activation and overal billing operations. Research and collect paper records of installations & abandonments for several years prior to audit year.	lo qualify for 4: Refine policy and procedures for ne and overall billing operations. Rese recordkeeping system (Customer Billing System) to improformat for service conn	earch computerized formation System or we documentation	Refine procedures to ensure consist activation and overall billing policy to connections or decommission es Improve process to include all totals prior to audit yes	ency with new account establish new service disting connections. For at least five years	to qualify for 8: Formalize regular review of new acco overall billing operations policies and p random field checks of limited nu Develop reports and auditing m computerized information manag	procedures. Launch ober of locations. echanisms for	to qualify for 10 Close any procedural loopholes that undocumented. Link computerized in system with Geographic Informatic formatize field inspection and inform processes. Documentation of new service connections encounters seve balances.	allow installations to go formation management on System (GIS) and nation system auditing or decommissioned	to maintain 10: Continue with standardization and random field validation to improve knowledge of system.
	Note: if customer water					piping, and the typical	ity owns and is responsible for the entire first point of use (ex: faucet) or the custo on Diagram" worksheet)				Either of two conditions can be met for a grading of 10:
Average length of customer service line:	meters are located outside of the customer building next to the curb stop or boundary separating utility/custome responsibility, then the auditor should answer "Yes" to the question on the Reporting Worksheet a sking about this. If the answer is Yes, the grading description listed under the Grading of 10(a) will be followed, with a value of zero automatically entered at a Grading of 10. See the Service Connection Diagram worksheet for a visual presentation of this distance.	Vague policy exists to define the delineation of water utility ownership and customer ownership of the service connection piping. Curl stops are perceived as the breakpoint but these have not been well-maintained or documented. Most are buried or obscured. Their location varies widely from site-to-site, and estimating this distance is arbitrary due to the unknown location of many curb stops.	Policy requires that the curb stop serves as the delineation point between water utility ownership and customer ownership of the service connection piping. The piping from the water main to the curb stop is the property of the water utility; and the piping from the curb stop to the customer building is owned by the customer. Curb stop boations are not well documented and the average distance is based upon a limited number of locations measured in the field.	Conditions between 2 and 4	Good policy requires that the curb stop serves as the delineation point between water utility ownership and customer ownership of the service connection piping. Curb stops are generally installed as needed and are reasonably documented. Their location varies widely from site-oste, and an estimate of this distance is hindered by the availability of paper records of limited accuracy.	į	Clear written policy exists to define utility/customer responsibility for service connection piping. Accurate, well-maintained paper or basic electronic recordkeeping system exists. Periodic field checks confirm piping lengths for a sample of customer properties.	Conditions between 6 and 8	Clearly worded policy standardizes the location of curb stops and meters, which are inspected upon installation. Accurate and well maintained electronic records exist with periodic field checks to confirm locations of service lines, curb stops and customer meter pits. An accurate number of customer properties from the customer billing system allows for reliable averaging of this length.	Conditions between 8 and 10	a) Customer water meters exist outside of customer buildings next to the curb stop or boundary separating utility/customer responsibility for service connection piping. If so, answer "Yes" to the question on the Reporting Working asking about this condition. A value of zero and a Grading of 10 are automatically entered in the Reporting Workshed to the Reporting Workshed customer buildings, or properties are unmetered. In either case, answer "No" to the Reporting Workshed visuation on meter location, and enter a distance determined by the auditor. For a Grading of 10 this value must be a very reliable number from a Geographic information System (GIS) and confirmed by a statistically valid number of field checks.
Improvements to attain higher data grading for "Average Length of Customer Service Line" component:		to qualify for 2: Research and collect paper records of service line installations. Inspect several sites in the field using pipe locators to locate curb stops. Obtain the length of this small sample of connections in this manner.	to qualify for 4: Formalize and communicate pr utility/customer responsibilities for . piping. Assess accuracy of pape inspection of a small sample of servic pipe locators as needed. Resea migration to a computerized inform system to store service conr	service connection er records by field be connections using arch the potential ation management	to qualify for 6 Establish coherent procedures to en- stage, meter installation and docum- distances on the stage of the stage of the of a computerized information ma	sure that policy for curb nentation is followed. by for the establishment	Implement an electronic means of received a customer information system, cus or Geographic Information System (GI process to conduct field chacks of a locations.	stomer billing system, IS). Standardize the	to qualify for 10 Link customer information mana, Geographic Information System (GIS for field verification o	gement system and b), standardize process	to maintain 10: Continue with standardization and random few validation to improve knowledge of service connection configurations and customer meter locations.
Average operating pressure:		Available records are poorly assembled and maintained paper records of supply pump characteristics and water distribution system operating conditions. Average pressure is guesstimated based upon this information and ground elevations from crude topographical maps. Widely varying distribution system pressures due to undulating terrain, high system head loss and weak/erraitic pressure controls further compromise the validity of the average pressure calculation.	Limited telemetry monitoring of scattered pumping station and water storage tank sites provides some static pressure data, which is recorded in handwritten logbooks. Pressure data is gathered at individual sites only when low pressure complaints arise. Average pressure is determined by averaging relatively crude data, and is affected by significant variation in ground elevations, system head loss and gaps in pressure controls in the distribution system.	Conditions between 2 and 4	Effective pressure controls separate different pressure zones; moderate pressure variation across the system, occasional open boundary valves are discovered that breech pressure zones. Basic telemetry monitoring of the distribution system logs pressure data electronically. Pressure data gathered by gauges or dataloggers at fire hydrants or buildings when low pressure complaints arise, and during fire flow tests and system flushing. Reliable topographical data exists. Average pressure is calculated using this mix of data.		Reliable pressure controls separate distinct pressure zones; only very occasional open boundary valves are encountered that breech pressure zones. Well-covered telemetry monitoring of the distribution system (not just pumping at source treatment plants or wells) logs extensive pressure data electronically. Pressure gathered by gauges/dataloggers at fire hydrants and buildings when low pressure complaints arise, and during fire flow tests and system flushing. Average pressure is determined by using this mix of reliable data.	6 and 8	Well-managed, discrete pressure zones exist with generally predictable pressure fluctuations. A current full-scale SCADA System or similar realitime monitoring system exists to monitor the water distribution system and collect data, including real time pressure readings at representative sites across the system. The average system pressure is determined from reliable monitoring system data.	Conditions between 8 and 10	Well-managed pressure districts/zones, SCADA System and hydraulic model exist to give very precise pressure data across the water distribution system. Average system pressure is reliably calculated from extensive, reliable, and cross-checked data. Calculations are reported on an annual basis as a minimum.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Improvements to attain highe data grading for "Average Operating Pressure" component:		to qualify for 2: Employ pressure gauging and/or datalogging equipment to obtain pressure measurements from fire hydrants. Locate accurate topographical maps of service area in order to confirm ground elevations. Research pump data sheets to find pump pressureflow characteristics	and flow data at different flow regin pressure controls (pressure reductive)	se pressure data has low pressure data has low pressure ather pump pressure nes. Identify faulty ing valves, altitude alves) and plan to Make all pressure enerate system-wide	to qualify for 6 Expand the use of pressure ga equipment to gather scattered representative set of sites, based up areas. Utilize pump pressure and is supply head entering each press Correct any faulty pressure contro valves, attitude valves, partially oper ensure properly configured pressure pressure dataset from these activities wide average pres	uging/datalogging pressure data at a oon pressure zones or low data to determine ure zone or district. is (pressure reducing n boundary valves) to zones. Use expanded es to generate system-	to qualify for 8: Install a Supervisory Control and Data System, or similar realtime monitoring system parameters and control oper calibration schedule for instrumenta accuracy. Obtain accurate topograph pressure data gathered from field s extensive, reliable data for press	g system, to monitor ations. Set regular ation to insure data nical data and utilize surveys to provide		age pressure value from n system that has been n the water distribution	to maintain 10: Continue to refine the hydraulic model of the distribution system and consider linking it with SCADA System for real-time pressure data calibration, and averaging.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
			<u>-</u>	<u> </u>	COST D		,	· ·	<u> </u>	<u> </u>	
Total annual cost of operating water system:		Incomplete paper records and lack of financial accounting documentation on many operating functions makes calculation of water system operating costs a pure guesstimate	Reasonably maintained, but incomplete, paper or electronic accounting provides data to estimate the major portion of water system operating costs.	Conditions between 2 and 4	Electronic, industry-standard cost accounting system in place. However, gaps in data are known to exist, periodic internal reviews are conducted but not a structured financial audit.		Reliable electronic, industry-standard cost accounting system in place, with all pertinent water system operating costs tracked. Data audited periodically by utility personnel, but not a Certified Public Accountant (CPA).	Conditions between 6 and 8	Reliable electronic, industry-standard cost accounting system in place, with all pertinent water system operating costs tracked. Data audited at least annually by utility personnel, and at least once every three years by third-party CPA.	Conditions between 8 and 10	Reliable electronic, industry-standard cost accounting system in place, with all pertinent water system operating costs tracked. Data audited annually by utility personnel and annually also by third-party CPA.
Improvements to attain higher data grading for "Total Annual Cost of Operating the Water System" component:		to qualify for 2: Gather available records, institute new financial accounting procedures to regularly collect and audit basic cost data of most important operations functions.	to qualify for 4: Implement an electronic cost accost structured according to accounting si utilities		to qualify for 6: Establish process for periodic interna operating costs; identify cost data procedures for tracking these o	l audit of water system a gaps and institute	to qualify for 8: Standardize the process to conduct re on an annual basis. Arrange for CP, records at least once every the	A audit of financial	to qualify for 10 Standardize the process to conduct audit by a CPA on an an	a third-party financial	to maintain 10: Maintain program, stay abreast of expenses subject to erratic cost changes and long-term cost trend, and budget/track costs proactively
Customer retail unit cost (applied to Apparent Losses):	Customer population unmetered, and/or only a fixed fee is charged for consumption.	Antiquated, cumbersome water rate structure is used, with periodic historic amendments that were poorly documented and implemented; resulting in classes of customers being billed inconsistent charges. The actual composite billing rate likely differs signification from the published water rate structure, but a lack of auditing leaves the degree of error indeterminate.	Dated, cumbersome water rate structure, not always employed consistently in actual billing operations. The actual composite billing rate is known to differ from the published water rate structure, and a reasonably accurate estimate of the degree of error is determined, allowing a composite billing rate to be quantified.	Conditions between 2 and 4	Straight-forward water rate structure in use, but not updated in several years. Billing operations reliably employ the rate structure. The composite billing rate is derived from a single customer class such as residential customer accounts, neglecting the effect of different rates from varying customer classes.	Conditions between 4 and 6	Clearly written, up-to-date water rate structure is in force and is applied reliably in billing operations. Composite customer rate is determined using a weighted average residential rate using volumes of water in each rate block.	Conditions between 6 and 8	Effective water rate structure is in force and is applied reliably in billing operations. Composite customer rate is determined using a weighted average composite consumption rate, which includes residential, commercial, industrial, institutional (CII), and any other distinct customer classes within the water rate structure.	Conditions between 8 and 10	Current, effective water rate structure is in force and applied reliably in billing operations. The rate structure and calculations of composite rate - which includes residential, commercial, industrial, institutional (CII), and other distinct customer classes - are reviewed by a third party knowledgeable in the M36 methodology at least once every five years.
Improvements to attain higher data grading for "Customer Retail Unit Cost" component:		to qualify for 2: Formalize the process to implement water rates, including a secure documentation procedure. Create an current, formal water rate document and gain approval from all stakeholders.	to qualify for 4: Review the water rate structure and u needed. Assess billing operations to billing operations incorporate the esta structure.	ensure that actual	to qualify for 6: Evaluate volume of water used in each usage block by residential users. Multiply volumes by full rate structure.	Launch effort to fully meter the customer population and charge rates based upon water volumes	to qualify for 8: Evaluate volume of water used in eacl classifications of users. Multiply vol structure.		to qualify for 10 Conduct a periodic third-party audit usage block by all classifications of u by full rate structs	of water used in each sers. Multiply volumes	to maintain 10: Keep water rate structure current in addressing the water utility's revenue needs. Update the calculation of the customer unit rate as new rate components, customer classes, or other components are modified.
Variable production cost (applied to Real Losses):	Note: if the water utility purchases/imports its entire water supply, then enter the unit purchase cost of the bulk water supply in the Reporting Worksheet with a grading of 10	Incomplete paper records and lack of documentation on primary operating functions (electric power and treatment costs most importantly) makes calculation of variable production costs a pure guesstimate	Reasonably maintained, but incomplete, paper or electronic accounting provides data to roughly estimate the basic operations costs (pumping power costs and treatment costs) and calculate a unit variable production cost.	Conditions between 2 and 4	Electronic, industry-standard cost accounting system in place. Electric power and treatment costs are reliably tracked and allow accurate weighted calculation of unit variable production costs based on these two inputs and water imported purchase costs (if applicable). All costs are audited internally on a periodic basis.	Conditions between 4 and 6	Reliable electronic, industry-standard cost accounting system in place, with all pertilinent water system operating costs tracked. Pertinent additional costs beyond power, treatment and water imported purchase costs (if applicable) such as liability, residuals management, wear and tear on equipment, impending expansion of supply, are included in the unit variable production cost, as applicable. The data is audited at least annually by utility personnel.	Conditions between 6 and 8	Reliable electronic, industry-standard cost accounting system in place, with all pertinent primary and secondary variable production and water imported purchase (if applicable) costs tracked. The data is audited at least annually by utility personnel, and at least once every three years by a third-party knowledgeable in the M36 methodology.	Conditions between 8 and 10	Either of two conditions can be met to obtain a grading of 10: 1) Third party CPA audit of all pertinent primary and secondary variable production and water imported purchase (fl applicable) costs on an annual basis. or. 2) Water supply is entirely purchased as bulk water imported, and the unit purchase cost - including all applicable marginal supply costs - serves as the variable production cost. If all applicable marginal supply costs are not included in this figure, a grade of 10 should not be selected.
Improvements to attain higher data grading for "Variable Production Cost" component:		to qualify for 2: Gather available records, institute new procedures to regularly collect and audit basic cost data and most important operations functions.	to qualify for 4: Implement an electronic cost accostructured according to accounting stutilities		to qualify for 6: Formalize process for regular inter- costs. Assess whether additional co- management, equipment wear, imp- expansion) should be included to representative variable proc	al audits of production osts (liability, residuals rending infrastructure o calculate a more	to qualify for 8: Formalize the accounting process to components (power, treatment) as w components (liability, residuals manage to conduct audits by a knowledgable once every three yea	vell as indirect cost ement, etc.) Arrange third-party at least	to qualify for 10 Standardize the process to conduct audit by a CPA on an an	a third-party financial	to maintain 10: Maintain program, stay abreast of expenses subject to erratic cost changes and budget/track costs proactively



AWWA Free Water Audit Software: Customer Service Line Diagrams

WAS v5.0

American Water Works Association. Copyright © 2014, All Rights Reserved.

Average Length of Customer Service Line

The three figures shown on this worksheet display the assignment of the Average Length of Customer Service Line, Lp, for the three most common piping configurations.

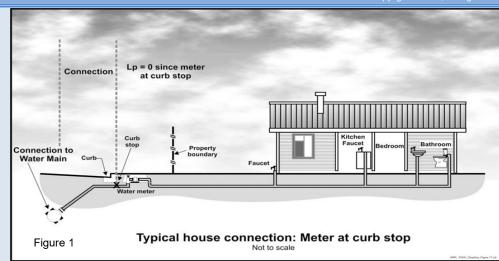
Figure 1 shows the configuration of the water meter outside of the customer building next to the curb stop valve. In this configuration Lp = 0 since the distance between the curb stop and the customer metering point is essentially zero.

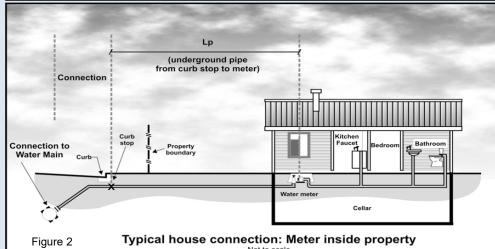
Figure 2 shows the configuration of the customer water meter located inside the customer building, where Lp is the distance from the curb stop to the water meter.

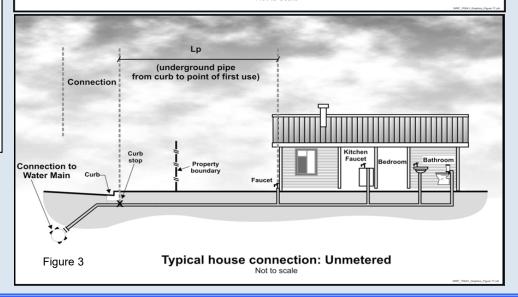
Figure 3 shows the configuration of an unmetered customer building, where Lp is the distance from the curb stop to the first point of customer water consumption, or, more simply, the building line.

In any water system the Lp will vary notably in a community of different structures, therefore the average Lp value is used and this should be approximated or calculated if a sample of service line measurements has been gathered.

Click for more information









AWWA Free Water Audit Software: Definitions

	Definitions Copyright © 2014, All Rights Reserved.
Item Name	Description
	= unauthorized consumption + customer metering inaccuracies + systematic data handling errors Apparent Losses include all types of inaccuracies associated with customer metering (worn meters as well as improperly sized meters or wrong type of meter
Apparent Losses	for the water usage profile) as well as systematic data handling errors (meter reading, billing, archiving and reporting), plus unauthorized consumption (theft or illegal use). NOTE: Over-estimation of Apparent Losses results in under-estimation of Real Losses. Under-estimation of Apparent Losses results in over-estimation of
Find	Real Losses.
	= billed water exported + billed metered + billed unmetered + unbilled metered + unbilled unmetered consumption
	The volume of metered and/or unmetered water taken by registered customers, the water utility's own uses, and uses of others who are implicitly or explicitly authorized to do so by the water utility; for residential, commercial, industrial and public-minded purposes.
AUTHORIZED CONSUMPTION	Typical retail customers' consumption is tabulated usually from established customer accounts as billed metered consumption, or - for unmetered customers - billed unmetered consumption. These types of consumption, along with billed water exported, provide revenue potential for the water utility. Be certain to tabulate the water exported volume as a separate component and do not "double-count" it by including in the billed metered consumption component as well as the water exported component.
Find	Unbilled authorized consumption occurs typically in non-account uses, including water for fire fighting and training, flushing of water mains and sewers, street cleaning, watering of municipal gardens, public fountains, or similar public-minded uses. Occasionally these uses may be metered and billed (or charged a flat fee), but usually they are unmetered and unbilled. In the latter case, the water auditor may use a default value to estimate this quantity, or implement procedures for the reliable quantification of these uses. This starts with documenting usage events as they occur and estimating the amount of water used in each event. (See Unbilled unmetered consumption)
View Service Connection Diagram	This is the average length of customer service line, Lp, that is owned and maintained by the customer; from the point of ownership transfer to the customer water meter, or building line (if unmetered). The quantity is one of the data inputs for the calculation of Unavoidable Annual Real Losses (UARL), which serves as the denominator of the performance indicator: Infrastructure Leakage Index (ILI). The value of Lp is multiplied by the number of customer service connections to obtain a total length of customer owned piping in the system. The purpose of this parameter is to account for the unmetered service line infrastructure that is the responsibility of the customer for arranging repairs of leaks that occur on their lines. In many cases leak repairs arranged by customers take longer to be executed than leak repairs arranged by the water utility on utility-maintained piping. Leaks run longer - and lose more water - on customerowned service piping, than utility owned piping.
Average length of customer service line	If the customer water meter exists near the ownership transfer point (usually the curb stop located between the water main and the customer premises) this distance is zero because the meter and transfer point are the same. This is the often encountered configuration of customer water meters located in an underground meter box or "pit" outside of the customer's building. The Free Water Audit Software asks a "Yes/No" question about the meter at this location. If the auditor selects "Yes" then this distance is set to zero and the data grading score for this component is set to 10.
Find	If water meters are typically located inside the customer premise/building, or properties are unmetered, it is up to the water auditor to estimate a system-wide average Lp length based upon the various customer land parcel sizes and building locations in the service area. Lp will be a shorter length in areas of high density housing, and a longer length in areas of low density housing and varied commercial and industrial buildings. General parcel demographics should be employed to obtain a composite average Lp length for the entire system.
	Refer to the "Service Connection Diagram" worksheet for a depiction of the service line/metering configurations that typically exist in water utilities. This worksheet gives guidance on the determination of the Average Length, Lp, for each configuration.
Average operating pressure	This is the average pressure in the distribution system that is the subject of the water audit. Many water utilities have a calibrated hydraulic model of their water distribution system. For these utilities, the hydraulic model can be utilized to obtain a very accurate quantity of average pressure. In the absence of a hydraulic model, the average pressure may be approximated by obtaining readings of static water pressure from a representative sample of fire hydrants or other system access points evenly located across the system. A weighted average of the pressure can be assembled; but be sure to take into account the elevation of the fire hydrants, which typically exist several feet higher than the level of buried water pipelines. If the water utility is compiling the water audit for the first time, the average pressure can be approximated, but with a low data grading. In subsequent years of auditing, effort should be made to improve the accuracy of the average pressure quantity. This will then qualify the value for a higher data grading.
Billed Authorized Consumption	All consumption that is billed and authorized by the utility. This may include both metered and unmetered consumption. See "Authorized Consumption" for more information.
Billed metered consumption	All metered consumption which is billed to retail customers, including all groups of customers such as domestic, commercial, industrial or institutional. It does NOT include water supplied to neighboring utilities (water exported) which is metered and billed. Be sure to subtract any consumption for exported water sales that may be included in these billing roles. Water supplied as exports to neighboring water utilities should be included only in the Water Exported component. The metered consumption data can be taken directly from billing records for the water audit period. The accuracy of yearly metered consumption data can be refined by including an adjustment to account for customer meter reading lag time since not all customer meters are read on the same day of the meter reading period. However additional analysis is necessary to determine the lag time adjustment value, which may or may not be significant.
Billed unmetered consumption	All billed consumption which is calculated based on estimates or norms from water usage sites that have been determined by utility policy to be left unmetered. This is typically a very small component in systems that maintain a policy to meter their customer population. However, this quantity can be the key consumption component in utilities that have not adopted a universal metering policy. This component should NOT include any water that is supplied to neighboring utilities (water exported) which is unmetered but billed. Water supplied as exports to neighboring water utilities should be included only in the Water Exported component.

Item Name	Description
Customer metering inaccuracies	Apparent water losses caused by the collective under-registration of customer water meters. Many customer water meters gradually wear as large cumulative volumes of water are passed through them over time. This causes the meters to under-register the flow of water. This occurrence is common with smaller residential meters of sizes 5/8-inch and 3/4 inch after they have registered very large cumulative volumes of water, which generally occurs only after periods of years. For meters sized 1-inch and larger - typical of multi-unit residential, commercial and industrial accounts - meter under-registration can occur from wear or from the improper application of the meter; i.e. installing the wrong type of meter or the wrong size of meter, for the flow pattern (profile) of the consumer. For instance, many larger meters have reduced accuracy at low flows. If an oversized meter is installed, most of the time the routine flow will occur in the low flow range of the meter, and a significant portion of it may not be registered. It is important to properly select and install all meters, but particularly large customer meters, size 1-inch and larger. The auditor has two options for entering data for this component of the audit. The auditor can enter a percentage under-registration (typically an estimated value), this will apply the selected percentage to the two categories of metered consumption to determine the volume of water not recorded due to customer meter inaccuracy. Note that this percentage is a composite average inaccuracy for all customer meters in the entire meter population. The percentage will be multiplied by the sum of the volumes in the Billed Metered and Unbilled Metered components. Alternatively, if the auditor has substantial data from meter testing activities, he or she can calculate their own loss volumes, and this volume may be entered directly. Note that a value of zero will be accepted but an alert will appear asking if the customer population is unmetered. Since all metered systems have some degre
Customer retail unit cost Find	The Customer Retail Unit Cost represents the charge that customers pay for water service. This unit cost is applied routinely to the components of Apparent Loss, since these losses represent water reaching customers but not (fully) paid for. Since most water utilities have a rate structure that includes a variety of different costs based upon class of customer, a weighted average of individual costs and number of customer accounts in each class can be calculated to determine a single composite cost that should be entered into this cell. Finally, the weighted average cost should also include additional charges for sewer, storm water or biosolids processing, but only if these charges are based upon the volume of potable water consumed. For water utilities in regions with limited water resources and a questionable ability to meet the drinking water demands in the future, the Customer Retail Unit Cost might also be applied to value the Real Losses; instead of applying the Variable Production Cost to Real Losses. In this way, it is assumed that every un volume of leakage reduced by leakage management activities will be sold to a customer. Note: the Free Water Audit Software allows the user to select the units that are charged to customers (either \$/1,000 gallons, \$/hundred cubic feet, or \$/1,000 litres) and automatically converts these units to the units that appear in the "WATER SUPPLIED" box. The monetary units are United States dollars, \$.
Infrastructure Leakage Index (ILI)	The ratio of the Current Annual Real Losses (Real Losses) to the Unavoidable Annual Real Losses (UARL). The ILI is a highly effective performance indicato for comparing (benchmarking) the performance of utilities in operational management of real losses.
Length of mains	Length of all pipelines (except service connections) in the system starting from the point of system input metering (for example at the outlet of the treatment plant). It is also recommended to include in this measure the total length of fire hydrant lead pipe. Hydrant lead pipe is the pipe branching from the water mai to the fire hydrant leads are typically of a sufficiently large size that is more representative of a pipeline than a service connection. The average length of hydrant leads across the entire system can be assumed if not known, and multiplied by the number of fire hydrants in the system, which can also be assumed if not known. This value can then be added to the total pipeline length. Total length of mains can therefore be calculated as: Length of Mains, miles = (total pipeline length, miles) + [{(average fire hydrant lead length, ft) x (number of fire hydrants)} / 5,280 ft/mile] or Length of Mains, kilometres = (total pipeline length, kilometres) + [{(average fire hydrant lead length, metres) x (number of fire hydrants)} / 1,000 metres/kilometre]
NON-REVENUE WATER Find	= Apparent Losses + Real Losses + Unbilled Metered Consumption + Unbilled Unmetered Consumption. This is water which does not provide revenue potential to the utility.
Number of <u>active</u> AND inactive service connections Find	Number of customer service connections, extending from the water main to supply water to a customer. Please note that this includes the actual number of distinct piping connections, including fire connections, whether active or inactive. This may differ substantially from the number of customers (or number of accounts). Note: this number does not include the pipeline leads to fire hydrants - the total length of piping supplying fire hyrants should be included in the "Length of mains" parameter.
Real Losses Find	Physical water losses from the pressurized system (water mains and customer service connections) and the utility's storage tanks, up to the point of customer consumption. In metered systems this is the customer meter, in unmetered situations this is the first point of consumption (stop tap/tap) within the property. The annual volume lost through all types of leaks, breaks and overflows depends on frequencies, flow rates, and average duration of individual leaks, breaks and overflows.
Revenue Water	Those components of System Input Volume that are billed and have the potential to produce revenue.
Service Connection Density Find	=number of customer service connections / length of mains

Item Name Description Apparent losses caused by accounting omissions, errant computer programming, gaps in policy, procedure, and permitting/activation of new accounts; and any type of data lapse that results in under-stated customer water consumption in summary billing reports. Systematic Data Handling Errors result in a direct loss of revenue potential. Water utilities can find "lost" revenue by keying on this component. Utilities typically measure water consumption registered by water meters at customer premises. The meter should be read routinely (ex: monthly) and the data transferred to the Customer Billing System, which generates and sends a bill to the customer. Data Transfer Errors result in the consumption value being less than the actual consumption, creating an apparent loss. Such error might occur from illegible and mis-recorded hand-written readings compiled by meter readers, inputting an incorrect meter register unit conversion factor in the automatic meter reading equipment, or a variety of similar errors. Apparent losses also occur from Data Analysis Errors in the archival and data reporting processes of the Customer Billing System. Inaccurate estimates used for accounts that fail to produce a meter reading are a common source of error. Billing adjustments may award customers a rightful monetary credit, but do so by creating a negative value of consumption, thus under-stating the actual consumption. Account activation lapses may allow new buildings to use water for Systematic data months without meter readings and billing. Poor permitting and construction inspection practices can result in a new building lacking a billing account, a water handling errors meter and meter reading; i.e., the customer is unknown to the utility's billing system. Find Close auditing of the permitting, metering, meter reading, billing and reporting processes of the water consumption data trail can uncover data management gaps that create volumes of systematic data handling error. Utilities should routinely analyze customer billing records to detect data anomalies and quantify these losses. For example, a billing account that registers zero consumption for two or more billing cycles should be checked to explain why usage has seemingly halted. Given the revenue loss impacts of these losses, water utilities are well-justified in providing continuous oversight and timely correction of data transfer errors & data handling errors. If the water auditor has not yet gathered detailed data or assessment of systematic data handling error, it is recommended that the auditor apply the default value of 0.25% of the the Billed Authorized Consumption volume. However, if the auditor has investigated the billing system and its controls, and has well validated data that indicates the volume from systematic data handling error is substantially higher or lower than that generated by the default value, then the auditor should enter a quantity that was derived from the utility investigations and select an appropriate grading. Note: negative values are not allowed for this audit component. If the auditor enters zero for this component then a grading of 1 will be automatically assigned. Total annual cost These costs include those for operations, maintenance and any annually incurred costs for long-term upkeep of the drinking water supply and distribution of operating the system. It should include the costs of day-to-day upkeep and long-term financing such as repayment of capital bonds for infrastructure expansion or water system improvement. Typical costs include employee salaries and benefits, materials, equipment, insurance, fees, administrative costs and all other costs that exist to sustain the drinking water supply. Depending upon water utility accounting procedures or regulatory agency requirements, it may be appropriate to include Find depreciation in the total of this cost. This cost should not include any costs to operate wastewater, biosolids or other systems outside of drinking water. Includes water illegally withdrawn from fire hydrants, illegal connections, bypasses to customer consumption meters, or tampering with metering or meter reading equipment; as well as any other ways to receive water while thwarting the water utility's ability to collect revenue for the water. Unauthorized consumption results in uncaptured revenue and creates an error that understates customer consumption. In most water utilities this volume is low and, if the vater auditor has not yet gathered detailed data for these loss occurrences, it is recommended that the auditor apply a default value of 0.25% of the volume of water supplied. However, if the auditor has investigated unauthorized occurrences, and has well validated data that indicates the volume from unauthorized Unauthorized consumption is substantially higher or lower than that generated by the default value, then the auditor should enter a quantity that was derived from the utility consumption investigations. Note that a value of zero will not be accepted since all water utilities have some volume of unauthorized consumption occurring in their system. Find Note: if the auditor selects the default value for unauthorized consumption, a data grading of 5 is automatically assigned, but not displayed on the Reporting Worksheet. UARL (gallons)=(5.41Lm + 0.15Nc + 7.5Lc) xP, UARL (litres)=(18.0Lm + 0.8Nc + 25.0Lc) xP where: Lm = length of mains (miles or kilometres) Nc = number of customer service connections Lp = the average distance of customer service connection piping (feet or metres) (see the Worksheet "Service Connection Diagram" for guidance on deterring the value of Lp) Lc = total length of customer service connection piping (miles or km) Lc = Nc X Lp (miles or kilometres) Unavoidable P = Pressure (psi or metres) **Annual Real** Losses (UARL) The UARL is a theoretical reference value representing the technical low limit of leakage that could be achieved if all of today's best technology could be successfully applied. It is a key variable in the calculation of the Infrastructure Leakage Index (ILI). Striving to reduce system leakage to a level close to the UARL is usually not needed unless the water supply is unusually expensive, scarce or both. NOTE: The UARL calculation has not yet been proven as fully valid for very small, or low pressure water distribution systems. If, in gallons: (Lm x 32) + Nc < 3000 or P <35psi in litres: (Lm x 20) + Nc < 3000 or P < 25m then the calculated UARL value may not be valid. The software does not display a value of UARL or ILI if either of these conditions is true.

Item Name Description All consumption that is unbilled, but still authorized by the utility. This includes Unbilled Metered Consumption + Unbilled Unmetered Consumption. See Unbilled Authorized Consumption" for more information. For Unbilled Unmetered Consumption, the Free Water Audit Software provides the auditor the option to select a default value if they have not audited unmetered activities in detail. The default calculates a volume that is 1.25% of the Water Supplied volume. If the Authorized auditor has carefully audited the various unbilled, unmetered, authorized uses of water, and has established reliable estimates of this collective volume, then he Consumption or she may enter the volume directly for this component, and not use the default value. Unbilled metered Metered consumption which is authorized by the water utility, but, for any reason, is deemed by utility policy to be unbilled. This might for example include consumption metered water consumed by the utility itself in treatment or distribution operations, or metered water provided to civic institutions free of charge. It does not include water supplied to neighboring utilities (water exported) which may be metered but not billed. Any kind of Authorized Consumption which is neither billed or metered. This component typically includes water used in activities such as fire fighting, flushing of water mains and sewers, street cleaning, fire flow tests conducted by the water utility, etc. In most water utilities it is a small component which is very often substantially overestimated. It does NOT include water supplied to neighboring utilities (water exported) which is unmetered and unbilled - an unlikely case. This component has many sub-components of water use which are often tedious to identify and quantify. Because of this, and the fact that it is Unbilled usually a small portion of the water supplied, it is recommended that the auditor apply the default value, which is 1.25% of the Water Supplied volume. Select unmetered he default percentage to enter this value. consumption f the water utility has carefully audited the unbilled, unmetered activities occurring in the system, and has well validated data that gives a value substantially higher or lower than the default volume, then the auditor should enter their own volume. However the default approach is recommended for most water utilities Note that a value of zero is not permitted, since all water utilities have some volume of water in this component occurring in their system. The user may develop an audit based on one of three unit selections: 1) Million Gallons (US) 2) Megalitres (Thousand Cubic Metres) 3) Acre-feet Once this selection has been made in the instructions sheet, all calculations are made on the basis of the chosen units. Should the user wish to make Units and additional conversions, a unit converter is provided below (use drop down menus to select units from the yellow unit boxes): Conversions Enter Units: Convert From... Converts to..... Million Gallons (US) 1 3.06888329 Acre-feet (conversion factor = 3.06888328973723) To enter a value choose this button and enter the value in the cell to the right To use the default percent value choose this button Pont Value \circ 4 1.25% **Use of Option Buttons** NOTE: For Unbilled Unmetered Consumption, Unauthorized Consumption and Systematic Data Handling Errors, a recommended default value can be applied by selecting the Percent option. The default values are based on fixed percentages of Water Supplied or Billed Aut horized Consumption and are recommended for use in this audit unless the auditor has well validated data for their system. Default values are shown by purple cells, as shown in the example above. If a default value is selected, the user does not need to grade the item; a grading value of 5 is automatically applied (howe ver, this grade will not be The cost to produce and supply the next unit of water (e.g., \$/million gallons). This cost is determined by calculating the summed unit costs for ground and surface water treatment and all power used for pumping from the source to the customer. It may also include other miscellaneous unit costs that apply to the production of drinking water. It should also include the unit cost of bulk water purchased as an import if applicable. Variable It is common to apply this unit cost to the volume of Real Losses. However, if water resources are strained and the ability to meet future drinking water production cost demands is in question, then the water auditor can be justified in applying the Customer Retail Rate to the Real Loss volume, rather than applying the Variable (applied to Real Production Cost. Losses) The Free Water Audit Software applies the Variable Production costs to Real Losses by default. However, the auditor has the option on the Reporting Worksheet to select the Customer Retail Cost as the basis for the Real Loss cost evaluation if the auditor determines that this is warranted. The volume of water withdrawn (abstracted) from water resources (rivers, lakes, streams, wells, etc) controlled by the water utility, and then treated for potable water distribution. Most water audits are compiled for utility retail water distribution systems, so this volume should reflect the amount of treated drinking water that entered the distribution system. Often the volume of water measured at the effluent of the treatment works is slightly less than the volume measured at the Volume from own raw water source, since some of the water is used in the treatment process. Thus, it is useful if flows are metered at the effluent of the treatment works. If sources metering exists only at the raw water source, an adjustment for water used in the treatment process should be included to account for water consumed in treatment operations such as filter backwashing, basin flushing and cleaning, etc. If the audit is conducted for a wholesale water agency that sells untreated Find water, then this quantity reflects the measure of the raw water, typically metered at the source.

Item Name	Description
Volume from own sources: Master meter and supply error adjustment	An estimate or measure of the degree of inaccuracy that exists in the master (production) meters measuring the annual Volume from own Sources, and any error in the data trail that exists to collect, store and report the summary production data. This adjustment is a weighted average number that represents the collective error for all master meters for all days of the audit year and any errors identified in the data trail. Meter error can occur in different ways. A meter or meters may be inaccurate by under-registering flow (did not capture all the flow), or by over-registering flow (overstated the actual flow). Data error can occur due to data gaps caused by temporary outages of the meter or related instrumentation. All water utilities encounter some degree of inaccuracy in master meters and data errors in archival systems are common; thus a value of zero should not be entered. Enter a negative percentage or value for metered data under-registration; or, enter a positive percentage or value for metered data over-registration.
	The Water Exported volume is the bulk water conveyed and sold by the water utility to neighboring water systems that exists outside of their service area. Typically this water is metered at the custody transfer point of interconnection between the two water utilities. Usually the meter(s) are owned by the water utility that is selling the water: i.e. the exporter. If the water utility who is compiling the annual water audit sells bulk water in this manner, they are an exporter of water.
	Note: The Water Exported volume is sold to wholesale customers who are typically charged a wholesale rate that is different than retail rates charged to the retail customers existing within the service area. Many state regulatory agencies require that the Water Exported volume be reported to them as a quantity separate and distinct from the retail customer billed consumption. For these reasons - and others - the Water Exported volume is always quantified separately from Billed Authorized Consumption in the standard water audit. Be certain not to "double-count" this quantity by including it in both the Water Exported box and the Billed Metered Consumption box of the water audit Reporting Worksheet. This volume should be included only in the Water Exported box.
Water exported: Master meter and supply error adjustment Find	An estimate or measure of the volume in which the Water Exported volume is incorrect. This adjustment is a weighted average that represents the collective error for all of the metered and archived exported flow for all days of the audit year. Meter error can occur in different ways. A meter may be inaccurate by under-registering flow (did not capture all the flow), or by over-registering flow (overstated the actual flow). Error in the metered, archived data can also occur due to data gaps caused by temporary outages of the meter or related instrumentation. All water utilities encounter some degree of error in their metered data, particularly if meters are aged and infrequently tested. Occasional errors also occur in the archived data. Thus, a value of zero should not be entered. Enter a negative percentage or value for metered data under-registration; or enter a positive percentage or value for metered data over-registration. If regular meter accuracy testing is conducted on the meter(s) - which is usually conducted by the water utility selling the water - then the results of this testing can be used to help quantify the meter error adjustment. Corrections to data gaps or other errors found in the archived data should also be included as a portion of this meter error adjustment.
Water imported Find	The Water Imported volume is the bulk water purchased to become part of the Water Supplied volume. Typically this is water purchased from a neighboring water utility or regional water authority, and is metered at the custody transfer point of interconnection between the two water utilities. Usually the meter(s) are owned by the water supplier selling the water to the utility conducting the water audit. The water supplier selling the bulk water usually charges the receiving utility based upon a wholesale water rate.
Water imported: Master meter and supply error adjustment Find	An estimate or measure of the volume in which the Water Imported volume is incorrect. This adjustment is a weighted average that represents the collective error for all of the metered and archived imported flow for all days of the audit year. Meter error can occur in different ways. A meter may be inaccurate by under-registering flow (did not capture all the flow), or by over-registering flow (overstated the actual flow). Error in the metered, archived data can also occur due to data gaps caused by temporary outages of the meter or related instrumentation. All water utilities encounter some level of meter inaccuracy, particularly if meters are aged and infrequently tested. Occasional errors also occur in the archived metered data. Thus, a value of zero should <u>not</u> be entered. Enter a negative percentage or value for metered data under-registration; or, enter a positive percentage or value for metered data over-registration. If regular meter accuracy testing is conducted on the meter(s) - which is usually conducted by the water utility selling the water - then the results of this testing can be used to help quantify the meter error adjustment.
	= apparent losses + real losses
Find	Water Losses are the difference between Water Supplied and Authorized Consumption. Water losses can be considered as a total volume for the whole system, or for partial systems such as transmission systems, pressure zones or district metered areas (DMA); if one of these configurations are the basis of the water audit.



AWWA Free Water Audit Software: Determining Water Loss Standing

American Water Works Association Copyright © 2014, All Rights Reserved

Reporting Year:

Water Audit Report for: Marina Coast Water District (2710017)

1/2017 - 12/2017 2017

Data Validity Score: 59

	Water Loss Control Planning Guide							
		Water /	Audit Data Validity Level	/ Score				
Functional Focus Area	Level I (0-25)	Level II (26-50)	Level III (51-70)	Level IV (71-90)	Level V (91-100)			
Audit Data Collection	Launch auditing and loss control team; address production metering deficiencies	Analyze business process for customer metering and billing functions and water supply operations. Identify data gaps.	Establish/revise policies and procedures for data collection	Refine data collection practices and establish as routine business process	Annual water audit is a reliable gauge of year-to-year water efficiency standing			
Short-term loss control	Research information on leak detection programs. Begin flowcharting analysis of customer billing system	Conduct loss assessment investigations on a sample portion of the system: customer meter testing, leak survey, unauthorized consumption, etc.	Establish ongoing mechanisms for customer meter accuracy testing, active leakage control and infrastructure monitoring	Refine, enhance or expand ongoing programs based upon economic justification	Stay abreast of improvements in metering, meter reading, billing, leakage management and infrastructure rehabilitation			
Long-term loss control		Begin to assess long-term needs requiring large expenditure: customer meter replacement, water main replacement program, new customer billing system or Automatic Meter Reading (AMR) system.	Begin to assemble economic business case for long-term needs based upon improved data becoming available through the water audit process.	Conduct detailed planning, budgeting and launch of comprehensive improvements for metering, billing or infrastructure management	Continue incremental improvements in short-term and long-term loss control interventions			
Target-setting			Establish long-term apparent and real loss reduction goals (+10 year horizon)	Establish mid-range (5 year horizon) apparent and real loss reduction goals	Evaluate and refine loss control goals on a yearly basis			
Benchmarking			Preliminary Comparisons - can begin to rely upon the Infrastructure Leakage Index (ILI) for performance comparisons for real losses (see below table)	Performance Benchmarking - ILI is meaningful in comparing real loss standing	Identify Best Practices/ Best in class - the ILI is very reliable as a real loss performance indicator for best in class service			
	For validity scores of 50	O or below, the shaded blocks s	should not be focus areas until b	petter data validity is achieved.				

Once data have been entered into the Reporting Worksheet, the performance indicators are automatically calculated. How does a water utility operator know how well his or her system is performing? The AWWA Water Loss Control Committee provided the following table to assist water utilities is gauging an approximate Infrastructure Leakage Index (ILI) that is appropriate for their water system and local conditions. The lower the amount of leakage and real losses that exist in the system, then the lower the ILI value will be.

Note: this table offers an approximate guideline for leakage reduction target-setting. The best means of setting such targets include performing an economic assessment of various loss control methods. However, this table is useful if such an assessment is not possible.

General Guidelines for Setting a Target ILI

(without doing a full economic analysis of leakage control options) **Target ILI Range Financial Considerations Operational Considerations Water Resources Considerations** Water resources are costly to develop or Operating with system leakage above this level Available resources are greatly limited and are purchase; ability to increase revenues via water would require expansion of existing infrastructure very difficult and/or environmentally unsound to 1.0 - 3.0rates is greatly limited because of regulation or low and/or additional water resources to meet the develop. ratepayer affordability. demand. Water resources can be developed or purchased Existing water supply infrastructure capability is Water resources are believed to be sufficient to at reasonable expense; periodic water rate sufficient to meet long-term demand as long as meet long-term needs, but demand management >3.0 -5.0 increases can be feasibly imposed and are reasonable leakage management controls are in interventions (leakage management, water tolerated by the customer population. place. conservation) are included in the long-term Cost to purchase or obtain/treat water is low. as Superior reliability, capacity and integrity of the Water resources are plentiful, reliable, and easily are rates charged to customers. water supply infrastructure make it relatively extracted. >5.0 - 8.0 immune to supply shortages. Although operational and financial considerations may allow a long-term ILI greater than 8.0, such a level of leakage is not an effective utilization of water as a resource. Setting a target level greater than 8.0 - other than as an incremental goal to a smaller long-term target - is discouraged. Greater than 8.0

Less than 1.0

potential sources of error in the data.

If the calculated Infrastructure Leakage Index (ILI) value for your system is 1.0 or less, two possibilities exist. a) you are maintaining your leakage at low levels in a class with the top worldwide performers in leakage control. b) A portion of your data may be flawed, causing your losses to be greatly understated. This is likely if you calculate a low ILI value but do not employ extensive leakage control practices in your operations. In such cases it is

beneficial to validate the data by performing field measurements to confirm the accuracy of production and customer meters, or to identify any other

Agenda Item: 11-E Meeting Date: December 17, 2018

Prepared By: Kelly Cadiente Approved By: Keith Van Der Maaten

Agenda Title: Receive Response to Marina Coast Water District Board Request for a Listing of

Developer Account Balances Written Off by the District

Staff Recommendation: The Board of Directors receive the response to the Board's request for a listing of developer account balances that have been written off by the District.

Background: 5-Year Strategic Plan, Strategic Goal No. 3.3 – Best Accounting Practices. On November 19, 2018, at its regular meeting, the Board of Directors adopted Resolution No. 2018-65 to approve the write-off of the Monterey Downs developer account deemed uncollectible in the amount of \$10,932. The Board also requested that staff provide a listing of all developer account balances previously written off the District.

Discussion/Analysis: Staff conducted a review of developer accounts receivable and found that two other developer accounts have been written off besides the account that was written off in November 2018. On September 17, 2017 the Board adopted Resolution No. 2017-61 which approved the write off of the Del Rey Oaks Development and the Marina Cottages Development accounts for a total of \$14,648. The following is a listing of Developer accounts written off as of December 17, 2018:

MARINA COAST WATER DISTRICT						
Developer Account Balances Written Off						
As of Decemb	er 17, 2018					
Resolution No	Resolution Date	Developer	Amount			
2017-61	9/17/2017	Del Rey Oaks Development	\$ 12,708			
2017-61	9/17/2017	Marina Cottages Development	\$ 1,940			
2018-65	11/19/2018	Monterey Downs Development	\$ 10,932			
		TOTAL	\$25,580			

Environmental Review	v Compliance: None	e required.		
Financial Impact:	Yes <u>X</u>	<u>No</u>	Funding Source	e/Recap: None
Other Considerations:	None.			
Materials Included for	Information/Consider	eration: None.		
Action Required:	Resolution	Moti	on X	Review

	Board Action	ı
Motion By	Seconded By	No Action Taken
Ayes	Ab	ostained
Noes	Ab	osent

Agenda Item: 11-F Meeting Date: December 17, 2018

Prepared By: Paula Riso Approved By: Keith Van Der Maaten

Agenda Title: Approve the Proposed Regular Board/GSA Meeting and Workshop Meeting

Schedule for 2019

Staff Recommendation: The Board of Directors is requested to approve the proposed regular Board/GSA meeting and workshop meeting schedule for 2019.

Background: 5-Year Strategic Plan, Mission Statement — We Provide high quality water, wastewater collection and conservation services at a reasonable cost, through planning, management and the development of water resources in an environmentally sensitive manner.

Discussion/Analysis: In 2017, the Board moved to a one meeting per month schedule with the Board meeting to be held on the third Monday of the month. The first Monday of the month is reserved for special meetings and workshops. Staff is anticipating that in 2019 there will be very few months that would require more than one meeting.

1st Monday of Each Month – Reserved for Workshops/Special Meetings 3rd Monday of Each Month – Board Meetings 6:30 p.m.

January 14, 2019*
January 22, 2019**
February 19, 2019**
March 4, 2019***
March 18, 2019
April 15, 2019
May 20, 2019
June 17, 2019
July 15, 2019
August 19, 2019
September 16, 2019
October 21, 2019
November 18, 2019
December 16, 2019

- * Board Training Workshop to start at 6:00 PM
- ** Monday is a holiday so the meeting is scheduled for Tuesday.
- *** Proposed Budget Workshop

Environmental Review	Compliance:	Non	e requir	red.	
Financial Impact:	Yes	X	_No	Funding Source/Recap: Nor	16
Other Considerations:	The Board can	sugg	gest alte	rnate meeting dates.	

Material Included for Information/Consideration: None.							
Action Required:	Resolution	X MotionReview					
Board Action							
Motion By	Seconded By	No Action Taken					
Ayes Abstained							
Noes		Absent					

Agenda Item:	12-A	Meeting Date: December 17, 2016					
Prepared By:	Paula Riso	Approved By: Keith Van Der Maaten					
Agenda Title:	Consider Appointments of Five Pub Commission	lic Members to the Water Conservation					
applicants, an applications re	Staff Recommendation: The Board receive the applications, consider the qualifications of the applicants, and appoint five members to the Water Conservation Commission from the applications received and select which three of the appointees will serve the two-year terms, and which two will serve initial three-year terms after which will revert back to two-year terms.						
Background: program.	5-Year Strategic Plan, Objective 1.7 –	Review and update our water conservation					
improve the oppositional professional profes	In August 2018, the Board approved the restructure of the Water Conservation Commission to improve the effectiveness of the Commission through implementation of more formal and professional proceedings; clarification of roles, responsibilities, objectives, and goals; establishing necessary training and staff support to keep Commission informed on items within their purview; and, by creating a closer connection of the advisory body proceedings and necessary Board decisions. As part of the restructure, the number of positions on the Commission was reduced from ten to five and it was recommended to re-advertise the openings and have the Board select five members from the applications received.						
applications re	· ·	pplications have been received. Of the ten he Commission and six are new applicants. e in the Ord Community.					
The Board is rapplications re	•	Water Conservation Commission from the					
Environmental Review Compliance: None Required.							
Financial Impa	act: Yes X No F	unding Source/Recap: None Required.					
Other Considerations: None.							
Material Included for Information/Consideration: Applications for appointment to the WCC from Audra Walton, Bill Huynh, Charlie Eskridge, Daniel Maschmerer, Jim Felton, Louis Richards, Margaret-Anne Coppernoll, Phil Clark, Sarah Babcock, and Shawn Storm.							

Action Required: _____Resolution _____X_Motion _____Review

Board Action				
Motion By	Seconded By	No Action Taken		
Ayes	Al	bstained		
Noes	Al	bsent		



Return to:

11 Reservation Road, Marina, CA 93933 (831) 384-6131 Fax (831) 883-5995

Or: Conservation@mcwd.org

Candidate for Water Conservation Commission

Description of Duties: The Commission members are advisory to the Board of Directors and their mission is to set the outreach plans/event schedule for the year; review conservation goals and evaluation metrics; review and update Policies and Ordinances; review water loss programs within Water Resources Programs; and, make advisory recommendations on decisions coming before the Board of Directors.

Name: Daniel M Maschmeier					
Address: 477 Forest Cin Maning CA					
Home Phone: 83/ 233 9288 Business Phone: Years as Customer of MCWD: 8					
Business Affiliation: Title:					
Business Address:					
Business Address:					
Occupational Experience: Business Auglyst					
Occupational Experience.					
Membership in Professional or Technical Organizations:					
Civic or Community Experience, Memberships or Previous Public Service Appointments:					
*					
Experience or Special Knowledge Pertaining to Area of Interest:					
A A/M/M/2010					
Signature Date					



Return to:

11 Reservation Road, Marina, CA 93933 (831) 384-6131 Fax (831) 883-5995 Or: Conservation@mcwd.org

Candidate for Water Conservation Commission

Description of Duties: The Commission members are advisory to the Board of Directors and their mission is to set the outreach plans/event schedule for the year; review conservation goals and evaluation metrics; review and update Policies and Ordinances; review water loss programs within Water Resources Programs; and, make advisory recommendations on decisions coming before the Board of Directors.

Name: JIM FELTOH
Address: 3139 MEGGINGER DRIVE MARINA CALIFORNIA
Home Phone: 204-9492 Business Phone: 917-7612 Years as Customer of MCWD: 27
Business Affiliation: Title: NA
Business Address: N/A
Educational Background: BACHLELOR OF ARCHITECTURE (5-YEAR/160HIZ
PROFESSIONAL DEGREE - UNIVERSITY OF NEGRESITY
GRADUATE STUDIES IN ECONOMICS - UNIVERSITY OF MERRY
Occupational Experience: CITY RANNEL FOR 35 YEARS - 15 WITH
MACCIN CITY/LANCISTET COUNTY PLANNING TRATISET &
LINCOLM CITY/LANCISTET COUNTY PLANNING DEPARTMENT & 20 YEARS WITH MARINA PLANNING DEPARTMENT, PRINCIPAL
STAFF SUPPORT FOR VOLUNTEER TREACH RESIEW COMMITTEES IN BOTH
Membership in Professional or Technical Organizations:
Civic or Community Experience, Memberships or Previous Public Service Appointments:
OH MONTERRY COUNTY HOUSING ADVISORY COMMITTER FROM
2011 TO 2015
Experience or Special Knowledge Pertaining to Area of Interest: NIGOTATION WATER
CONGERVATION (AND REGONRER CONFRUETION MORE PROMICY) FOR PAST
O YEARS MINCIPAL CITY STAFF ENGAGED IN PREPARATION
ADOPTION AND IMPLEMENTATION OF LANDSCAPE GUIDELINGS FOR WATER
CONFRENTION IN MARINA
Signature Date Date
Date/ /

Title: SITE COORDINATOR



Marina Coast Water District 11 Reservation Road, Marina, CA 93933

11 Reservation Road, Marina, CA 93933 (831) 384-6131 Fax (831) 883-5995

Candidate for Water Conservation Commission

Description of Duties: The Commission members are advisory to the Board of Directors and their mission is to set the outreach plans/event schedule for the year; review conservation goals and evaluation metrics; review and update Policies and Ordinances; review water loss programs within Water Resources Programs; and, make advisory recommendations on decisions coming before the Board of Directors.

Name: LOUIS A (LOU) RICHARDS

Address: 347 CARMEL AVENUE SPACE 83

Home Phone:831-206-6198 Business Phone: 831-375-4454 Years as Customer of MCWD: 3

Business Affiliation: MEALS ON WHEELS OF THE MONTEREY PENINSULA

Business Address: 700 JEWELL AVENUE, PACIFIC GROVE, CA

Educational Background: BA, HUMBOLDT STATE UNIVERSITY, ARCATA, CA

Occupational Experience: Currently, I work for Meals on Wheels delivering meals to seniors and doing other chores around the office. I have worked in retail, technical support and I have a wide background in various industries. I retired from the United States Navy in 1986 as a Chief Petty Officer where one of my main duties was the production and distribution of fresh water.

Membership in Professional or Technical Organizations: Not that it has any bearing but I'm a life member of the Fleet Reserve Association, Vietnam Vets of America and the VFW.

Civic or Community Experience, Memberships or Previous Public Service Appointments: I have not served on any boards previously, but I have contributed many volunteer hours with Meals on Wheels, the local Veterans Transition Center and other service organizations.

Experience or Special Knowledge Pertaining to Area of Interest: Well, I know a lot about water. My main interest is getting involved with and giving back to my community. I have a keen interest in water and the issues surrounding it. I understand its importance and hope that my time and energy can help a little.

Signature

I MINS 48@ GMAIL, LON

Date 9-14-18



Return to:

11 Reservation Road, Marina, CA 93933 (831) 384-6131 Fax (831) 883-5995 Or: Conservation@mcwd.org

Candidate for Water Conservation Commission

Description of Duties: The Commission members are advisory to the Board of Directors and their mission is to set the outreach plans/event schedule for the year; review conservation goals and evaluation metrics; review and update Policies and Ordinances; review water loss programs within Water Resources Programs; and, make advisory recommendations on decisions coming before the Board of Directors.

Name: Margaret-anne Copperniell
Name: Margaret-anne Coppernoll Address: 308 Costa Del Mar Road Marina, CA 93933
Home Phone: (831) 578-767 Business Phone (831) 578-7877 Years as Customer of MCWD: 1941s Business Affiliation: Monterey Peninsula Title: Loverning Board Trustee Business Address:
Business Affiliation: Monterey Peninsula Title: Loverning Board Toustee
Business Address:
Educational Background: B. A. Univ of San Diego; M.A. Ph. D. Univ of Southern
California; m.A. Fletcher School of Law & Diplomacy, Sufts
Educational Background: B. A. Univ of San Siego; M.A. Ph. D. Univ of Southern California; M.A. Fletcher School of Law & Diplomacy, Sufts University; MA, Univ of Poris, France
Occupational Experience: School teacher K-12; US military (army):
USMA, West Point & Georgetown Univ: professor: U.S
army Europe; personnel: U.S. atlantic Command: Direction
Joint Overseas Deployment Programs; Delens Googal opportunit, Wet
Joint Overseas Deployment Programs; Defense Egraed opportunity Mgt. Membership in Professional or Technical Organizations: Other assignment
U.S MA West Point Chapter Phi Kappa Phi; World again
Council: asian art Society of Monterey Bay; Restorative Justice
Partnership; Citizens for just Water-co-founder
Civic or Community Experience, Memberships or Previous Public Service Appointments: District 4
Monterey County Montal Health Commission - commission somes marine
con only Development Commercialon - Commercialone, City o marine
35th 440th anni Versary Committees - Chair; MCWD Water Conservation Experience or Special Knowledge Pertaining to Area of Interest:
Experience or Special Knowledge Pertaining to Area of Interest:
Service or McWo Water Conservation Commission: Citizen for frest
Notes-research application for party status to cour calam proceeding re the MPWSP / slant wells; research on new technology for desaluration process without chemicals
re the MPWSP / slant wells; research on new technology for
m desalination process without channels
Margaret-Anne Coppernoll 25 September 2018 Date
Date



Marina Coast Water District 11 Reservation Road, Marina, CA 93933

(831) 384-6131 Fax (831) 883-5995

Candidate for Water Conservation Commission

Description of Duties: The Commission members are advisory to the Board of Directors and their mission is to set the outreach plans/event schedule for the year; review conservation goals and evaluation metrics; review and update Policies and Ordinances; review water loss programs within Water Resources Programs; and, make advisory recommendations on decisions coming before the Board of Directors.

Name: Phil Clark
Address: 5100 Coe Ave, Suite 204, Seaside, 93955-6853
Home Phone: 45-7830 Business Phone: 54ME Years of Residence in Marina: 18
Business Affiliation: Hallie International Title Corner Engineer
Business Address: 5100 Coe Avo. Suite 204, Seaside, 93955-10853
Educational Background: MPC, Electrial-Electronics AS-Wert
Sandose State University - Mechical
Student Pilot, MPC, Solo 2004, Current Occupational Experience: Hallie International Systems Integrator Speciality, Anechoic Chambers, Three Meter Type
The Clorox Company, Senior Research Engineer Packaging
Membership in Professional or Technical Organizations:
Packaging Engineering Bay Area)
Society Vot Plastie Engineering (Boy Hrog)
Civic or Community Experience, Memberships or Previous Public Service Appointments:
WCC, Chair, 8-2016 to Present, 100% Attendance
LOCG, background cleanance for MPVSD17XDLI
military 18, CHOMP, Dog Therapy 2003-2008
Experience or Special Knowledge Pertaining to Area of Interest: WCC, Char Attendence
100 To Board of Directors Mtgs & Workshops, 95% Attend.
Joint City Mays, Public Optneach events 95%. Achieved
80 To Wic goals + Objectives FY'16, 17,18. Drought education for Bay View Community 15,16, 17,18.
Signature Date ZA Sept. 2018



Marina Coast Water District 11 Reservation Road, Marina, CA 93933

Return to:

(831) 384-6131 Fax (831) 883-5995

Or: Conservation@mcwd.org

Candidate for Water Conservation Commission

Description of Duties: The Commission members are advisory to the Board of Directors and their mission is to set

the outreach plans/event schedule for the year; review conservation goals and evaluation metrics; review and update Policies and Ordinances; review water loss programs within Water Resources Programs; and, make advisory recommendations on decisions coming before the Board of Directors. Name: Sarah Babcock Address: 15527 Watkins Gate Road, East Garrison, CA 93933 Home Phone: 209.872.5726 Business Phone: N/A Years as Customer of MCWD: 2 Business Affiliation: M3 Environmental Consulting, LLC Title: Environmental Technician Business Address: 9821 Blue Larkspur Lane, Suite 100, Monterey, CA 93940 Educational Background: received my undergraduate degree in Environmental Studies with a concentration in Science for Sustainable Communities and a minor in Environmental Health Policy from CSU Monterey Bay. During my studies, I took coursework in Politics and the Environment, Geology and Hydrology, Water Resources/Law and Policy, as well as several sustainability courses. For my senior project, I also created a water conservation program for the student dorms on campus. Occupational Experience: have several years of customer service experience spanning multiple industries. I have also volunteered as a bilingual student guide at the Monterey Bay Aquarium and have volunteered with the Monterey Regional Waste Management District at Earth Day events as well as with a local school in vermicomposting workshops. Currently, I am an Environmental Technician conducting hazardous materials testing as well as site monitoring to ensure that OSHA and EPA guidelines are met and abided by. Membership in Professional or Technical Organizations: N/A Civic or Community Experience, Memberships or Previous Public Service Appointments: During my undergraduate program, I did community service through the Marina Regional Waste Management District assisting in the Ord Terrace E.S. Composting Program where I worked with students in an after school/lunch programs. I also assisted MRWMD in the Earth Day booth, where we answered questions and talked with visitors. I also have attended City Counsel meetings as well as spoke out during specific sustainability issues that face my community. Experience or Special Knowledge Pertaining to Area of Interest: I have taken coursework in sustainability and conservation for both waste and water related issues. I am very passionate about conserving our natural resources and I am not afraid to speak out about these issues. I seek to be a part of community and helping lead it toward a more sustainable and brighter future by means of conservation and education.

10/9/18



Return to:

11 Reservation Road, Marina, CA 93933 (831) 384-6131 Fax (831) 883-5995

Or: Conservation@mcwd.org

Candidate for Water Conservation Commission

Description of Duties: The Commission members are advisory to the Board of Directors and their mission is to set the outreach plans/event schedule for the year; review conservation goals and evaluation metrics; review and update Policies and Ordinances; review water loss programs within Water Resources Programs; and, make advisory recommendations on decisions coming before the Board of Directors.

Signature	Date
Shawn Storm	10/5/18
Cost Effective Climate and Water Ecol Matching customer requirements with	0.0
Experience or Special Knowledge Pertaining to Area	of Interest:
Civic or Community Experience, Memberships or Pro Volunteer for City of Sunnyvale: Subs Submitted Ideas for Bicycle Pedestrian	mitted Climate, Ecology Challenge Ideas
CA Board Certified Professional Electrical Institute of Electrical and Electronic En	
Membership in Professional or Technical Organization	ons:
Extensive professional experience designer effective VLSI computer systems. Prod skills.	
Occupational Experience:	
M.S. Computer Engineering Manageme B.S. Computer Science California State B.S. Electrical Engineering California S	University of San Francisco
Educational Background:	
Business Address:	
Business Affiliation:	Title: Professional Engineer
Home Phone: 408-781-3146 Business Phone:	Years as Customer of MCWD: 4
Address: 148 Dolphin Circle	
Name: Snawn Storm	

Agenda Item: 12-B Meeting Date: December 17, 2018

Prepared By: Kelly Cadiente Approved By: Keith Van Der Maaten

Agenda Title: Consider Accepting the Comprehensive Annual Financial Report and the

Independent Auditor's Report for the Fiscal Year ended June 30, 2018

Staff Recommendation: Consider Accepting the Comprehensive Annual Financial Report and the Independent Auditor's Report for the fiscal year ended June 30, 2018.

Background: 5-Year Strategic Plan, Objective 3.4 Close and Audit financial statements in a timely manner.

The Board is requested to review and accept the Comprehensive Annual Financial Report (CAFR) and the Independent Auditor's Report for the fiscal year ended June 30, 2018. This is the eleventh consecutive year that staff has prepared a CAFR report for the District.

On June 15, 2015, the District approved a three-year Audit Contract with the Pun Group, LLP, Certified Public Accountants (Auditors), as the District's external auditors. Last year was year-three of the contract. On May 21, 2018, the Board adopted Resolution No. 2018-31 to extend its contract with the Pun Group, LLP for one year in order to audit the fiscal year 2017-2018. The extension was granted because the pending settlement of litigation regarding the Regional Desalination Project (RDP) was due to conclude by fiscal year end June 30, 2018 and having been the audit firm for the District for the past six years, the Pun Group has extensive knowledge and background with regards to the RDP and therefore best suited to audit fiscal year 2017-2018 for the District.

The Auditors provided an Independent Auditor's Report (included in the CAFR report) stating that the financial statements present fairly, in all material respects, the financial position of the District for fiscal year 2017-2018.

Discussion/Analysis: The CAFR is an extensive report summarizing the financial activities of the District that occurred from July 1, 2017 through June 30, 2018 and is divided into three sections: Introductory, Financial and Statistical Sections.

The introductory section contains a Letter of Transmittal, awards and achievements, organizational chart and directory of officials. The letter of transmittal includes a brief overview of the District, its policies and how the District controls its finances.

The financial section contains the Management's Discussion and Analysis report. This analysis illustrates the basic financial operations of the District in a more detailed manner than is found in the Letter of Transmittal. Also included in this section are the Independent Auditor's Report and the Basic Financial Statements and Notes to the Financial Statements.

The final section of the report is a compilation of statistical schedules for the last ten years that depict various trends and general information of the District.

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the District for its CAFR for the fiscal year ended June 30, 2017. This is the tenth consecutive year that the District has received this prestigious award. In order to be awarded a Certificate of Achievement, the District had to publish an easily readable and efficiently organized CAFR that satisfied both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. Staff believes that Districts current CAFR continues to meet the Certificate of Achievement Program's requirements and is submitting it to GFOA to determine its eligibility for another certificate.

	g Partner of the Pun Gro n their audit report and the	up, LLP will be available at the Board meeting to ne District's CAFR.
Financial Impact:	YesXN	o Funding Source/Recap: None.
	Information/Consideration d June 30, 2018 (provide	n: The Comprehensive Annual Financial Report d separately).
Action Required:	Resolution	X MotionReview
	Board	Action
Motion By	Seconded By	No Action Taken
Ayes		Abstained
Noes		Absent

Marina, California

Comprehensive Annual Financial Report

For The Fiscal Years Ended

June 30, 2018 and 2017





11 Reservation Road, Marina California 93933



This page is intentionally left blank.



Marina, California

Comprehensive Annual Financial Report

For The Fiscal Years Ended
June 30, 2018 and 2017

11 Reservation Road Marina, California 93933



This page is intentionally left blank.

INTRODUCTORY SECTION (Unaudited) Letter of Transmittal......i-v GFOA Certificate of Achievementvi Organization Chartvii Directory of District Officials......viii FINANCIAL SECTION Independent Auditor's Report on Financial Statements1-5 Management's Discussion and Analysis - Required Supplementary Information (Unaudited)......6-13 **Basic Financial Statements:** Statements of Revenues, Expenses, and Changes Required Supplementary Information (Unaudited): Schedule of Proportionate Share of the Net Pension Liability and Schedule of Contributions - Defined Benefit Pension Plan57 Schedule of Changes in the Total OPEB Liability - Other Post-Employment Benefits58 Supplementary Information: Schedule of Net Position - Proprietary Funds59-60 Schedule of Revenues, Expenses, and Changes in Net Position - Proprietary Funds......61 STATISTICAL SECTION (Unaudited) Financial Trends - Expenses by Function66 Revenue Capacity - Water Production by Service Area......67 Revenue Capacity - Principal Water Users......70 Debt Capacity - Ratios of Outstanding Debt by Type71



This page is intentionally left blank.

INTRODUCTORY SECTION

(UNAUDITED)



This page is intentionally left blank.



MARINA COAST WATER DISTRICT

11 RESERVATION ROAD, MARINA, CA 93933-2099 Home Page: www.mcwd.org TEL: (831) 384-6131 FAX: (831) 883-5995 DIRECTORS

THOMAS P. MOORE

President

JAN SHRINER Vice President

WILLIAM Y. LEE HOWARD GUSTAFSON HERBERT CORTEZ

December 17, 2018

Board of Directors Marina Coast Water District Marina, California

It is a pleasure to submit the Marina Coast Water District's (MCWD or District) Comprehensive Annual Financial Report (CAFR) for the fiscal years ended June 30, 2018 and 2017. The CAFR gives an assessment of the District's financial condition, informs readers about District services, gives details of infrastructure replacement projects, discusses current issues, and provides financial and demographic trend information.

The California Government Code requires an annual independent audit of MCWD's financial statements by a Certified Public Accountant (CPA). The District's financial statements have been audited by The Pun Group LLP, Certified Public Accountants (auditor). The auditor's opinion is included in the financial section of this CAFR.

The CAFR is believed to be accurate in all material respects, and is presented in a manner designed to fairly set forth the financial position, the changes in financial position and cash flows for the District. All disclosures necessary to enable the reader to gain the maximum understanding of the District's financial activity have been included. Management assumes full responsibility for the completeness and reliability of the information contained in this report, based upon a comprehensive framework of internal control that it has established for this purpose. While the independent auditors have expressed an unmodified ("clean") opinion that MCWD's financial statements are presented in conformity with U.S. generally accepted accounting principles (GAAP), responsibility for both the accuracy of the presented data and completeness and fairness of the presentation, including all disclosures, rests with the District.

District Overview

The District is a special district formed in 1960 under the County Water District Act for the purpose of installing and operating a water supply, water distribution system and wastewater collection system for the City of Marina. The District serves approximately 30,000 residents through 10,000 connections in its Marina and former Fort Ord (Ord Community) service areas.

The District currently pumps all of its supply or approximately 3,000 acre feet of water (both Marina and Ord Community systems) annually from groundwater wells.

The District owns and operates 20 sewer lift stations, more than 140 miles of gravity pipeline and 7 miles of forced main to convey in excess of two million gallons per day of sewage to the Monterey One Water Treatment Plant. Monterey One Water (M1W), previously named, "Monterey Regional Water Pollution Control Agency", operates the regional wastewater treatment plant. Sewage is conveyed to an interceptor and measured at the M1W pump station for Central Marina and at the Flume structure for Ord Community.

The District's system encompasses approximately 200 miles of water pipeline and owns and operates eight production wells with an estimated capacity of approximately twenty million gallons per day. District water storage includes eight water storage tanks with a combined capacity of eleven million gallons and six booster pump stations. In addition, monitoring wells are strategically located along the coast to monitor water quality and groundwater levels in the aquifers that are the source for the District's water supply. All wells are sampled to identify the presence of chemicals, the threat of salt water intrusion, and to monitor water levels.

The District has an authorized staff of 38 full-time employees providing services to its six service area funds: Marina Water, Marina Wastewater, Ord Community Water, Ord Community Wastewater, New Water Project (Regional Urban Water Augmentation Project or RUWAP) and Regional Desalination Project.

Governance

MCWD is a public agency (special district) governed by a five member independently elected Board of Directors (Board) serving staggered four-year terms elected at-large from within the District's Marina service area. The Ord Community is not annexed into the District's service area and as such Board members are not elected from the Ord Community area. Annually, a President and Vice President are chosen among the Board members. MCWD operates under a Board-Manager form of government. The Board of Directors appoints the General Manager who is responsible for the administration of the District. The General Manager organizes and directs District activities in accordance with the Board's policies.

The Board meets in a regular session on the third Monday of each month. Regular meetings are held at 6:30 p.m. at the Marina Council Chambers, 211 Hillcrest Avenue, Marina, California. Board meetings are open to the public.

Budget Process

Annually, the District prepares and adopts an operating budget and updates its five-year Capital Improvement Program (CIP). Both serve as the District's financial planning and fiscal control. Budgets are adopted on a basis consistent with governmental GAAP. Budgetary controls are set at the department level and are maintained to ensure compliance with the budget approved by the Board of Directors. The District's budget is a detailed operating plan that identifies estimated costs in relation to estimated revenues. The budget includes the projects, services and activities to be carried out during the fiscal year and the estimated revenue available to finance these

operating and capital costs. The budget represents a process wherein policy decisions made by the Board of Directors are adopted, implemented and controlled. Budget control is maintained through the use of project codes and account appropriations. Actual expenditures are then compared to these appropriations on a monthly basis. The General Manager has the discretion to transfer appropriations between activities. Board approval is required for any overall increase in appropriations or changes to the Capital Improvement Program.

Economic Condition and Outlook

Although the January 2014 Drought State of Emergency was lifted in April 2017, California's water supply continues to be a concern due to projected population increases and the effect the multi-year drought had on the State's groundwater supply. This concern has increased interest in conservation and new water sources. The District has led the area in its conservation efforts and will continue to make strides in this area.

The District is working on multiple concepts that will provide new water sources to its customers. If each concept is successful the District's water portfolio may include groundwater, conservation savings, storm water, desalination water and recycled water.

The District continues to align construction projects with current economic growth and is preparing for increased activity by the development community.

Long-term Financial Planning

The District contracted with Carollo Engineers to prepare a five-year rate study and financial plan (Study) for the District. The Study was completed in January 2018 and identified those resources necessary for the District to properly fund its operations and capital program for the fiscal years 2019 through 2023. The Study provides the appropriate means to obtain the needed resources through a combination of rate increases and project financing. A full version of the Study can be viewed on the District's website www.mcwd.org.

MCWD also conducted a formal Cost Allocation Plan, which was completed by Carollo Engineers, documenting their review of how MCWD overhead costs are allocated among its four cost centers. The study determined that MCWD's approach not only meets State and Federal requirements, but also achieves best management principles of financial statements that are reasonable, consistent, repeatable and documented.

Major Initiatives

The District completed a five-year rate study and financial plan in January 2018. The financial plan was to provide the resources that are necessary to properly fund the District as we meet future needs and requirements that are identified in the plan. Based on the recommendations, the District conducted a Proposition 218 notification process and adopted rate increases in 2018 for its Marina and Ord Community service areas for fiscal years 2019 through 2023.

The Marina Coast Water District's Central Marina and Ord Community water service areas overlie portions of the Monterey Subbasin, the 180/400 Foot Aquifer Subbasin, and part of the Seaside

Adjudicated Basin. Three of the District wells are located in Central Marina and five wells are in the Ord Community. The California Department of Water Resources (DWR) granted the District exclusive Groundwater Sustainability Agency (GSA) status within its jurisdictional boundaries within the Monterey Subbasin and the 180/400 Subbasin. Since the District has been determined to be an exclusive GSA in both the Monterey Subbasin and the 180/400 Subbasin, the MCWD GSA will be engaged in the development of Groundwater Sustainability Plans (GS plans) for the entirety of these two Subbasins, in coordination with other GSA's within these Subbasins. The 180/400 Aquifer Subbasin GS plan has to be prepared by January 31, 2020 and the Monterey Subbasin GS plan has to be prepared by January 31, 2022.

Internal Control

District management is responsible for the establishment and maintenance of the internal control structure that ensures the assets of the District are protected from loss, theft or misuse. The internal control structure also ensures adequate accounting data is compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The District's internal control structure is designed to provide reasonable assurances that these objectives are met. The concept of reasonable assurance recognizes that (1) the cost of a control should not exceed the benefits likely to be derived, and (2) the valuation of costs and benefits requires estimates and judgments by management.

Investment Policy

The Board of Directors periodically adopts an Investment Policy that conforms to California State Law, District ordinances and resolutions, prudent money management and the "prudent person" standards. The objectives of the Investment Policy are safety, liquidity and yield. District funds are normally invested in the State Treasurer's Local Agency Investment Fund (LAIF), Certificates of Deposits, and guaranteed investment contracts (GIC).

Water Rates and District Revenues

District policy direction ensures that all revenues from user charges generated from District customers must support all District operations. Accordingly, water rates are reviewed periodically.

Water rates are user charges imposed on customers for services and are the primary component of the District's revenue. Water rates are composed of a commodity (usage) charge and a fixed (readiness-to-serve) charge.

During fiscal year 2017-18, water and sewer rate increases occurred January 1, 2018 for both the Central Marina and the Ord Community as stated in the Proposition 218 notification in 2014 and approved by the Board through adoption of Resolution No. 2014-20 on May 19, 2014.

Independent Audit

State Law and Bond covenants require the District to obtain an annual audit of its financial statements by an independent certified public accountant. The accounting firm The Pun Group, LLP has conducted the audit of the District's financial statements. The audit was conducted in accordance with auditing standards generally accepted in the United States of America. The firm's report has been included in the financial section of this report.

Other References

More information is contained in the District's management discussion and analysis and the notes to the basic financial statements found in the financial section of this report.

Awards and Acknowledgements

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the District for its CAFR for the fiscal year ended June 30, 2017. This was the tenth consecutive year that the District has received this prestigious award. In order to be awarded a Certificate of Achievement, the District had to publish an easily readable and efficiently organized CAFR that satisfied both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to GFOA to determine its eligibility for another certificate.

Preparation of this report was accomplished by the combined efforts of District staff. We appreciate the dedicated efforts and professionalism that these staff members contribute to the service of the District's customers. We would also like to thank the members of the Board of Directors for their continued support in the planning and implementation of the Marina Coast Water District's fiscal policies.

Respectfully submitted,

Keith Van Der Maaten General Manager Kelly M. Cadiente

Director of Administrative Services

Gelly M. Cadeente



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

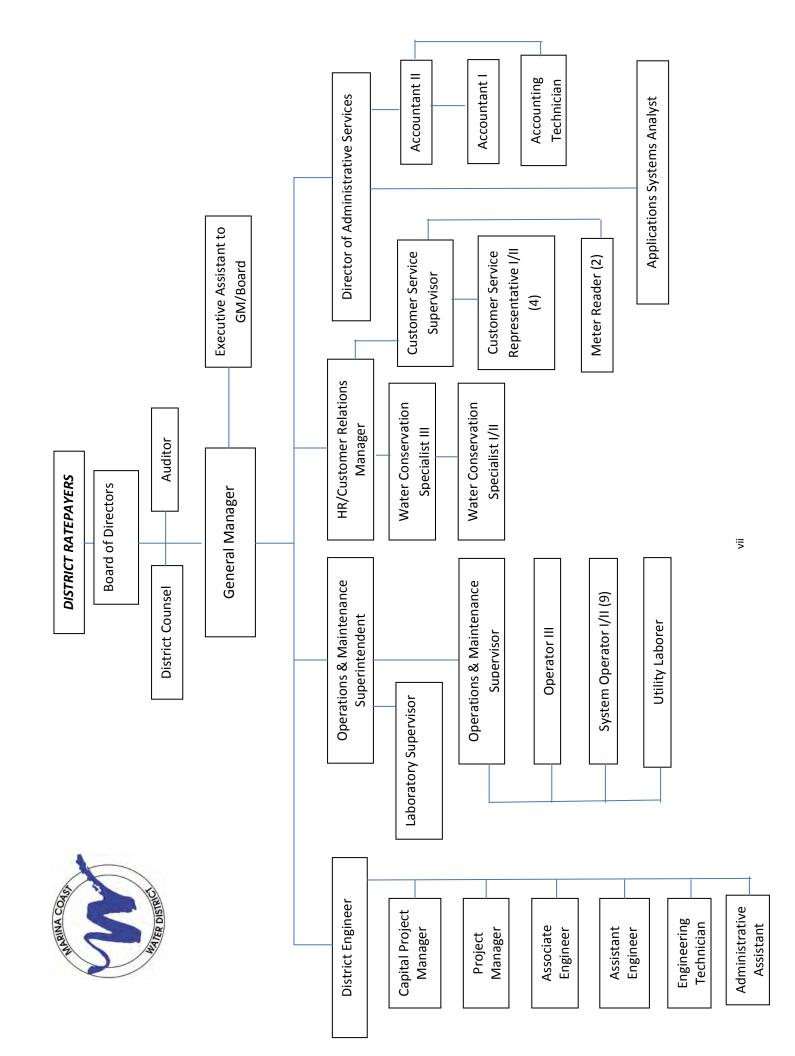
Marina Coast Water District California

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill

Executive Director/CEO



Marina Coast Water District

Directory

Board of Directors June 30, 2018

Thomas P. Moore President

Jan Shriner Vice-President

William Y. Lee Director

Howard Gustafson Director

Herbert Cortez Director

Management Staff

Keith Van Der Maaten General Manager

Mike Wegley District Engineer

Kelly Cadiente Director of Administrative Services

Jean Premutati Human Resources/ Customer Relations

Manager

Derek Cray Operations & Maintenance Superintendent

FINANCIAL SECTION



This page is intentionally left blank.



INDEPENDENT AUDITORS' REPORT

To the Board of Directors of the Marina Coast Water District Marina, California

Report on Financial Statements

We have audited the accompanying financial statements of the business-type activities of Marina Coast Water District (the "District"), as of and for the years ended June 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

To the Board of Directors of the Marina Coast Water District Marina, California Page 2

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities of the District, as of June 30, 2018 and 2017, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Change in Accounting Principle

As discussed in Note 1 to the financial statements, in 2018, the District adopted new accounting guidance, GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. The adoption of this statement requires retrospective application of previously reported net position at July1, 2017 as described in Note 9 to the basic financial statements. In addition, Net OPEB Liability is reported in the Statement of Net Position in the amount of \$2,225,665 as of June 30, 2017, the measurement date. This Net OPEB Liability is calculated by actuaries using estimates and actuarial techniques from an actuarial valuation as of June 30, 2018. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule of the District's Proportionate Share of the Net Pension Liability, Schedule of Contributions, Schedule of Changes in the Net OPEB Liability - Other Postemployment Benefits, and Schedules of Changes in Total Other Post-Employment Benefits Liability and related ratios on pages 6 to 13 and 57 to 58 be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the District's basic financial statements. The Introductory and Statistical Sections are presented for purposes of additional analysis and are not a required part of the basic financial statements. The Introductory and Statistical Sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

To the Board of Directors of the Marina Coast Water District Marina, California Page 3

Other Reporting Required by Government Auditing Standards

The Red Group, UP

In accordance with *Government Auditing Standards*, we have also issued our report dated December 17, 2018 on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the District's internal control over financial reporting and compliance.

Santa Ana, California December 17, 2018



This page is intentionally left blank.



INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of Directors of the Marina Coast Water District Marina, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities of the Marina Coast Water District, California (the "District"), as of and for the years ended June 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the District's basic financial statements, and have issued our report thereon dated December 17, 2018.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the District's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the District's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

To the Board of Directors of the Marina Coast Water District Marina, California Page 2

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Santa Ana, California December 17, 2018

This section of the Marina Coast Water District's (District) financial statements presents an analysis of the District's financial performance during the fiscal years ended June 30, 2018 and 2017. This information is presented in conjunction with the transmittal letter in the Introductory Section, and with the basic financial statements and related notes, which follow this section.

Overview of the District's Financial Statements

The financial statements consist of the following three parts: Management's Discussion and Analysis, Basic Financial Statements and related Notes, and Supplementary Information.

Basic Financial Statements

The financial statements of the District report information utilizing the full accrual basis of accounting. The financial statements conform to accounting principles generally accepted in the United States of America.

The Statement of Net Position includes information on the District's assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and the obligations to District creditors (liabilities).

The Statement of Revenues, Expenses, and Changes in Net Position identify the District's revenues and expenses for the fiscal year. This statement provides information on the District's operations for the fiscal year and can be used to determine whether the District has recovered all of its actual and projected costs through user fees and other charges.

The Statement of Cash Flows provides information on the District's cash receipts, cash payments and changes in cash resulting from operations, investments and financing activities. From the Statement of Cash Flows, the reader can obtain information on the source and use of cash and the change in the cash and cash equivalents balance for the fiscal year.

Notes to the Basic Financial Statements

The notes provide additional information that is essential for a full understanding of the data provided in the basic financial statements.

Required Supplementary Information

In addition to the basic financial statements and accompanying notes, this report also presents certain Required Supplementary Information concerning the District's progress in funding its obligation to provide pension benefits and post-employment benefits to its employees.

Supplementary Information

Proprietary fund schedules are presented in Supplementary Information to provide additional details on the financial condition of each fund.

Financial Analysis of the District

The Statement of Net Position and the Statement of Revenues, Expenses, and Changes in Net Position provide an indication of the District's financial condition and also indicate whether the financial condition of the District improved over time. The District's net position reflects the difference between assets and liabilities. An increase in net position over time typically indicates an improvement in financial condition. However, considerations should be made for other non-financial factors such as changes in economic conditions, population growth, new or changed government legislation, such as changes in Federal and State water quality standards.

Financial Highlights for Fiscal Years 2018 and 2017

- At June 30, 2018, the District's total assets and deferred outflows of resources exceeded the total liabilities and deferred inflows of resources by \$169.7 million (net position), which is an increase of \$18.5 million or 12.2% over the 2017 fiscal year-end balance. At June 30, 2017, the District's total assets and deferred outflows of resources exceeded the total liabilities and deferred inflows of resources by \$151.2 million (net position), which is an increase of \$8.2 million or 5.7% over the 2016 fiscal year-end balance.
- The total long-term debt for the current fiscal year decreased by \$1.9 million or 5.0% and prior year decreased by \$1.8 million or 4.4% due to annual debt service payments.
- Capital assets increased by \$24.6 million or 13.8% primarily due to the RUWAP project. For fiscal year 2017, capital assets increased by \$2.5 million or 1.4% due to increases in several major capital projects.
- Capital contributions increased \$9.7 million or 146.8% in the current year primarily due to the RUWAP project and increased \$3.7 million or 124.9% in the prior year due to capacity and connection fees.

Net Position

A summary of the District's Statement of Net Position is presented below. Balances shown include interfund eliminations. Additional details are provided in the proprietary fund schedules in Supplementary Information.

Condensed Statements of Net Position

	June 30					Change between				Change between		
		2018		2017		2016	2018 and 2017		2017 and 2016		016	
Assets:												
Current assets	\$	15,884,659	\$	8,023,142	\$	5,081,656	\$	7,861,517	98.0%	\$	2,941,486	57.9%
Noncurrent assets		12,957,240		12,381,748		13,371,324		575,492	4.6%		(989,576)	-7.4%
Capital assets, net		203,057,824		178,427,499		175,903,182		24,630,325	13.8%		2,524,317	1.4%
Total Assets	_	231,899,723	_	198,832,389		194,356,162		33,067,334	16.6%		4,476,227	2.3%
Deferred outflows		1,221,945		606,888		591,435		615,057	101.3%		15,453	2.6%
<u>Liabilities:</u>												
Current liabilities		19,581,104		4,108,162		6,254,238		15,472,942	376.6%		(2,146,076)	-34.3%
Noncurrent liabilities		42,621,285		42,910,048		43,868,837		(288,763)	-0.7%		(958,789)	-2.2%
Total Liabilities		62,202,389		47,018,210		50,123,075		15,184,179	32.3%		(3,104,865)	-6.2%
Deferred inflows		1,187,121		1,180,189		1,791,868		6,932	0.6%		(611,679)	-34.1%
Net Position:												
Net investment in capital assets		159,905,420		139,827,693		135,455,049		20,077,727	14.4%		4,372,644	3.2%
Restricted for capacity fees		12,105,493		11,531,344		12,521,538		574,149	5.0%		(990,194)	-7.9%
Restricted for debt service		851,747		850,404		849,786		1,343	0.2%		618	0.1%
Unrestricted		(3,130,502)		(968,563)		(5,793,719)	_	(2,161,939)	223.2%		4,825,156	-83.3%
Total Net Position	\$	169,732,158	\$	151,240,878	\$	143,032,654	\$	18,491,280	12.2%	\$	8,208,224	5.7%

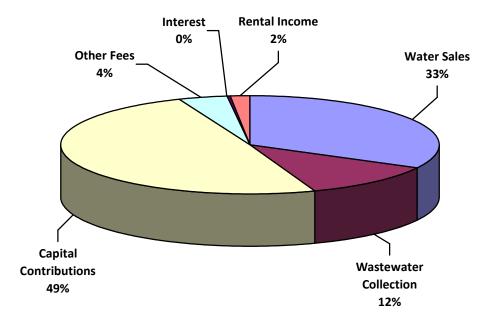
As noted earlier, net position may serve over time as a useful indicator of a district's financial position. In the case of the District, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$169.7 million, \$151.2 million and \$143.0 million as of June 30, 2018, 2017 and 2016, respectively.

One of the largest portions of the District's net position (94.2%, 92.5% and 94.7% as of June 30, 2018, 2017 and 2016, respectively) reflects the District's net investment in capital assets. The District uses these capital assets to provide services to customers within the District's service area; consequently, these assets are not available for future spending.

At the end of fiscal years 2018, 2017 and 2016, the District showed a negative balance in its unrestricted net position of \$3.1 million, \$1.0 million and \$5.8 million, respectively.

Revenues

The District finances its water sales and wastewater collection operations through user fees and other income. Total revenue for fiscal year 2018 was \$33.0 million, up \$12.1 million or 57.7% from prior year. Total revenue for fiscal year 2017 was \$20.9 million, up \$4.5 million or 27.5% from 2016. Capital contributions increased \$9.7 million or 146.8% in the current year primarily due to grants for the RUWAP project. Prior year increased \$3.7 million or 124.9% due to capacity and connection fees.

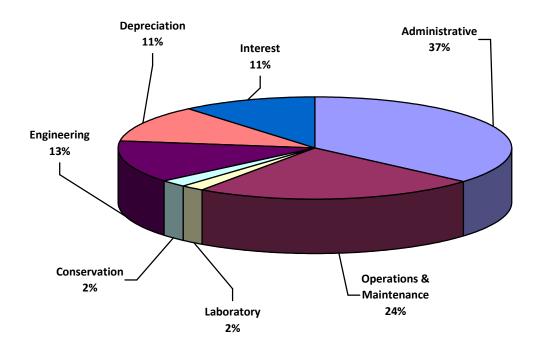


Revenues

	June 30					Change between			Change between		
		2018		2017		2016	 2018 and 20	2018 and 2017		2017 and 20	016
Operating Revenues:		_									
Water sales	\$	10,844,656	\$	9,486,324	\$	8,620,556	\$ 1,358,332	14.3%	\$	865,768	10.0%
Wastewater collection		3,828,160		3,450,138		3,116,103	378,022	11.0%		334,035	10.7%
Other services & fees		1,345,278		748,872		363,606	 596,406	79.6%		385,266	106.0%
Total Operating Revenues		16,018,094		13,685,334		12,100,265	2,332,760	17.0%		1,585,069	13.1%
Nonoperating Revenues:											
Rental income		519,024		566,651		764,986	(47,627)	-8.4%		(198,335)	-25.9%
Interest earned		132,986		64,012		618,904	 68,974	107.8%		(554,892)	-89.7%
Total Nonoperating Revenues		652,010		630,663		1,383,890	21,347	3.4%		(753,227)	-54.4%
Capital Contributions:		16,364,028		6,630,732		2,948,012	9,733,296	146.8%		3,682,720	124.9%
Total Revenues	\$	33,034,132	\$	20,946,729	\$	16,432,167	\$ 12,087,403	57.7%	\$	4,514,562	27.5%

Expenses

Total expenses for fiscal year 2018 were \$13.5 million, which is an increase of \$0.8 million or 6.2% from prior year. Administrative expenses increased \$0.7 million and Engineering expenses increased \$0.2 million coupled with a decrease of \$0.1 million in depreciation expense from prior year. Total expenses for fiscal year 2017 were \$12.7 million, down \$0.9 million or 6.7% from fiscal year 2016 primarily due to a reduction in interest expense of \$1.4 million or 48.8% as a result of the refinance of the 2006 Certificates in 2016.



Expenses

	June 30					Change between			Change between			
		2018		2017		2016		2018 and 2017		2017 and 2016		016
Operating Expenses:												
Administrative	\$	4,907,644	\$	4,220,398	\$	3,118,186	\$	687,246	16.3%	\$ 1,	102,212	35.3%
Operations and maintenance		3,181,860		3,173,240		3,140,765		8,620	0.3%		32,475	1.0%
Laboratory		251,818		256,607		238,256		(4,789)	-1.9%		18,351	7.7%
Conservation		301,155		304,338		376,383		(3,183)	-1.0%		(72,045)	-19.1%
Engineering		1,822,501		1,656,803		1,494,965		165,698	10.0%	:	161,838	10.8%
Depreciation		1,555,935		1,615,194		1,579,973		(59,259)	-3.7%		35,221	2.2%
Total Operating Expenses		12,020,913		11,226,580		9,948,528		794,333	7.1%	1,	278,052	12.8%
Nonoperating Expenses:												
Interest expense		1,510,940		1,511,925		2,954,075		(985)	-0.1%	(1,4	442,150)	-48.8%
Investmentloss		-		-		474,892		-	0.0%	(4	474,892)	-100.0%
Bond issuance costs		<u> </u>				268,534			0.0%	(268,534)	-100.0%
Total Nonoperating Expenses		1,510,940		1,511,925		3,697,501		(985)	-0.1%	(2,	185,576)	-59.1%
Total Expenses	\$	13,531,853	\$	12,738,505	\$	13,646,029	\$	793,348	6.2%	\$ (907,524)	-6.7%

Net Position

The Statement of Revenues, Expenses and Changes in Net Position on page 15 show how the District's net position changed during the fiscal year. Net position increased by \$19.5 million, \$8.2 million and \$2.8 million for the fiscal years ended June 30, 2018, 2017 and 2016, respectively.

Changes in Net Position

		June 30		Change between	Change between
	2018	2017	2016	2018 and 2017	2017 and 2016
Beginning Net Position, as restated	\$ 150,229,879	\$ 143,032,654	\$ 140,246,516	\$ 7,197,225 5	.0% \$ 2,786,138 2.0%
Income before contributions Capital contributions	3,138,251 16,364,028	1,577,492 6,630,732	(161,874) 2,948,012	1,560,759 98 9,733,296 146	.9% 1,739,366 -1074.5% .8% 3,682,720 124.9%
Change in net position	19,502,279	8,208,224	2,786,138	11,294,055 137	.6%5,422,086194.6%
Ending Net Position	\$ 169,732,158	\$ 151,240,878	\$ 143,032,654	\$ 18,491,280 12	.2% \$ 8,208,224 5.7%

Capital Assets

At the end of fiscal years 2018, 2017 and 2016, the District's capital assets amounted to \$203.1 million, \$178.4 million and \$175.9 million, respectively, (net of accumulated depreciation). Capital assets includes land, water/wastewater rights, easements, transmission and distribution systems, wells, tanks, reservoirs, pumps, buildings and structures, equipment, vehicles and construction-in-progress.

Changes in capital assets were as follows:

Capital Assets

	June 30					Change between			Change between			
		2018		2017		2016		2018 and 201	.7		2017 and 201	6
Capital Assets:												
Non-depreciable assets	\$	173,098,996	\$	147,830,200	\$	144,005,474	\$	25,268,796	17.1%	\$	3,824,726	2.7%
Depreciable assets		72,692,835		71,829,202		71,533,092		863,633	1.2%		296,110	0.4%
Less accumulated depreciation		(42,734,007)		(41,231,903)		(39,635,384)		(1,502,104)	3.6%		(1,596,519)	4.0%
Total Capital Assets, Net	\$	203,057,824	\$	178,427,499	\$	175,903,182	\$	24,630,325	13.8%	\$	2,524,317	1.4%

Additional information on the District's capital assets is provided in Note 4 on pages 29-30 of the financial statements.

Debt Administration

As of June 30, 2018, the District had \$36.4 million in outstanding debt compared to \$38.3 million as of June 30, 2017 and \$40.1 million as of June 30, 2016. Revenue certificates of participation in the amount of \$42.3 million were issued in August 2006 to fund costs associated with several major capital improvement projects and were also used to refund the District's existing outstanding debt obligations. These bonds were refinanced with the issue of the 2015 revenue bonds as an advanced refunding and were called on June 1, 2016. The District bought land in 2009 and 2010, securing both purchases with a promissory note. In 2010 subordinate enterprise revenue refunding bonds in the amount of \$8.5 million were issued to refinance the promissory note associated with the Armstrong Ranch land purchase. The District has covenanted that it will fix, prescribe and collect rates, fees and charges for use of the District's water system during each fiscal year which is at least sufficient to yield in each fiscal year net revenues equal to 125% of the debt service for such fiscal year. The 2010 subordinate enterprise revenue refunding bonds were assigned an "A+" long-term rating at the time of issue and the 2015 revenue refunding bonds were assigned a rating of "AA-". In January 2017, the District converted the \$2.8 million BLM construction loan into an Installment Purchase Agreement with a 20-year fixed rate.

Changes in long-term debt amounts were as follows:

Outstanding Debt at Year End

	June 30						Change between			Change between		
		2018		2017		2016	 2018 and 20	17		2017 and 20	16	
Long-Term Debt:												
Bonds payable	\$	30,590,000	\$	32,340,000	\$	34,030,000	\$ (1,750,000)	-5.4%	\$	(1,690,000)	-5.0%	
Loans payable		2,722,387		2,799,880		2,776,000	(77,493)	-2.8%		23,880	0.9%	
Compensated absences		447,151		402,531		349,436	44,620	11.1%		53,095	15.2%	
Unamortized premiums, net		2,612,777		2,760,405		2,908,034	 (147,628)	-5.3%		(147,629)	-5.1%	
Total Long-Term Debt	\$	36,372,315	\$	38,302,816	\$	40,063,470	\$ (1,930,501)	-5.0%	\$	(1,760,654)	-4.4%	

Additional information on the District's long-term debt is provided in Note 6 on pages 31-35 of the financial statements.

Economic Factors and Next Year's Budget and Rates

The Board of Directors adopted the District's 2018-2019 Marina and Ord Community budgets and rates on June 18, 2018. The approval of the budget provides funding for the District's operating, capital and debt service costs for the 2018-2019 fiscal year. The District's water and wastewater rates are reviewed by staff on an annual basis.

Water augmentation cost center does not generate revenues and is created to capture accruing costs related to water augmentation projects.

Requests for Information

This financial report is designed to provide the District's elected officials, customers, investors, creditors and other interested parties with an overview of the District's financial operations and financial condition. Should the reader have questions regarding the information included in this report or wish to request additional financial information, please contact the Director of Administrative Services, Marina Coast Water District, 11 Reservation Road, Marina, California 93933.





This page is intentionally left blank.

MARINA COAST WATER DISTRICT Statements of Net Position June 30, 2018 and 2017

	2018	2017
ASSETS		
Current assets:		
Cash and investments	\$ 6,661,512	\$ 5,441,967
Accounts receivable, net	1,662,844	1,935,454
Interest receivable	36,118	17,324
Other receivable	7,316,929	405,055
Inventories	134,542	137,284
Deposits	3,612	3,612
Prepaid items	69,102	82,446
Total current assets	15,884,659_	8,023,142
Noncurrent assets:	42.057.040	10 001 740
Restricted cash and investments	12,957,240	12,381,748
Capital assets, net	203,057,824	178,427,499
Total noncurrent assets	216,015,064	190,809,247
TOTAL ASSETS	231,899,723	198,832,389
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows related to pensions	1,178,339	606,888
Deferred outflows related to OPEB	43,606	
TOTAL DEFERRED OUTFLOWS OF RESOURCES	1,221,945	606,888
LIABILITIES Constant Pale Pale		
Current liabilities:	10 141 027	707 245
Accounts payable	10,141,937	787,245 95,064
Accrued expenses Interest payable	110,402 187,722	95,064 195,434
Line of credit	6,562,695	195,454
Customer deposits payable	626,520	1,159,499
Current portion of long-term debt	1,942,630	1,861,722
Other current liabilities	9,198	9,198
Total current liabilities	19,581,104	4,108,162
Noncurrent liabilities:		
Long-term debt	34,429,685	36,441,094
Net OPEB obligation	=	1,044,423
Total OPEB liability	2,225,665	-
Aggregate net pension liability	2,965,935	2,424,531
Other noncurrent liability	3,000,000	3,000,000
Total noncurrent liabilities	42,621,285	42,910,048
TOTAL LIABILITIES	62,202,389	47,018,210
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows related to pensions	522,576	480,668
Deferred gains on refunding debt	664,545_	699,521
TOTAL DEFERRED INFLOWS OF RESOURCES	1,187,121	1,180,189
NET POSITION		
Net investment in capital assets	159,905,420	139,827,693
Restricted for capacity fees	12,105,493	11,531,344
Restricted for debt service	851,747	850,404
Unrestricted	(3,130,502)	(968,563)
TOTAL NET POSITION	\$ 169,732,158	\$ 151,240,878

 $\label{thm:continuous} \textit{The notes to the basic financial statements are an integral part of this statement.}$

MARINA COAST WATER DISTRICT

Statements of Revenues, Expenses, and Changes in Net Position For The Years Ended June 30, 2018 and 2017

Total operating revenues 16,018,094 13,685 OPERATING EXPENSES: 4,907,644 4,220 Administrative 4,907,644 4,220 Operations and maintenance 3,181,860 3,173 Laboratory 251,818 250 Conservation 301,155 304 Engineering 1,822,501 1,656 Depreciation 1,555,935 1,615 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES): ****	
Wastewater services 3,828,160 3,450 Other services and fees 1,345,278 748 Total operating revenues 16,018,094 13,685 OPERATING EXPENSES: Administrative 4,907,644 4,220 Operations and maintenance 3,181,860 3,173 Laboratory 251,818 250 Conservation 301,155 300 Engineering 1,822,501 1,650 Depreciation 1,555,935 1,615 Total operating expenses 12,020,913 11,220 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES): ***	
Wastewater services 3,828,160 3,450 Other services and fees 1,345,278 748 Total operating revenues 16,018,094 13,685 OPERATING EXPENSES: Administrative 4,907,644 4,220 Operations and maintenance 3,181,860 3,173 Laboratory 251,818 250 Conservation 301,155 300 Engineering 1,822,501 1,650 Depreciation 1,555,935 1,615 Total operating expenses 12,020,913 11,220 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES): ***	,324
Other services and fees 1,345,278 748 Total operating revenues 16,018,094 13,685 OPERATING EXPENSES: 4,907,644 4,220 Administrative 4,907,644 4,220 Operations and maintenance 3,181,860 3,173 Laboratory 251,818 256 Conservation 301,155 304 Engineering 1,822,501 1,656 Depreciation 1,555,935 1,619 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458	
OPERATING EXPENSES: 4,907,644 4,220 Operations and maintenance 3,181,860 3,173 Laboratory 251,818 256 Conservation 301,155 304 Engineering 1,822,501 1,656 Depreciation 1,555,935 1,619 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	,872
Administrative 4,907,644 4,220 Operations and maintenance 3,181,860 3,173 Laboratory 251,818 256 Conservation 301,155 304 Engineering 1,822,501 1,656 Depreciation 1,555,935 1,615 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	,334
Operations and maintenance 3,181,860 3,173 Laboratory 251,818 256 Conservation 301,155 304 Engineering 1,822,501 1,656 Depreciation 1,555,935 1,615 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	
Laboratory 251,818 256 Conservation 301,155 304 Engineering 1,822,501 1,656 Depreciation 1,555,935 1,615 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	,398
Conservation 301,155 304 Engineering 1,822,501 1,656 Depreciation 1,555,935 1,615 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	,240
Engineering 1,822,501 1,656 Depreciation 1,555,935 1,619 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	,607
Depreciation 1,555,935 1,615 Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	,338
Total operating expenses 12,020,913 11,226 Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	,803
Operating income 3,997,181 2,458 NONOPERATING REVENUES (EXPENSES):	,194
NONOPERATING REVENUES (EXPENSES):	,580
	,754
Rental income 519,024 566	
	,651
·	,012
Interest expense (1,510,940) (1,513	,925)
Total nonoperating revenue (expenses) (858,930) (883	,262)
Income (loss) before capital contributions 3,138,251 1,577	,492
CAPITAL CONTRIBUTIONS:	
Grants 10,676,158 555	,104
Capacity and connection fees 5,151,848 5,503	,637
	,991
Total capital contributions 16,364,028 6,630	,732
Increase in net position 19,502,279 8,208	,224
Net position, beginning of year 151,240,878 143,032	,654
Restatement due to Implementation of GASB 75 (Note 12) (1,010,999)	
Net position, beginning of year (as restated) 150,229,879 143,032	,654
Net position, end of year \$ 169,732,158 \$ 151,240	,878

The notes to the basic financial statements are an integral part of this statement.

MARINA COAST WATER DISTRICT

Statements of Cash Flows

For The Years Ended June 30, 2018 and 2017

	2018	2017
OPERATING ACTIVITIES:		
Receipts from customers and users	\$ 15,664,839	\$ 13,207,128
Payments to employees	(5,183,421)	(5,284,086)
Payments to suppliers	(5,528,601)	(5,713,270)
Net cash provided by operating activities	4,952,817	2,209,772
CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and construction of capital assets	(23,223,946)	(4,139,511)
Proceeds from grants	10,676,158	555,104
Developer contributions, capacity and connection receipts	5,687,870	6,075,628
Proceeds from line of credit	6,562,695	-
Principal paid on capital debt	(1,827,494)	(2,320,519)
Interest paid on capital debt	(1,666,277)	(1,593,224)
Net cash (used in) capital and related financing activities	(3,790,994)	(1,422,522)
INVESTING ACTIVITIES:		
Rental income	519,024	566,651
Investment earnings	114,190	56,855
Net cash provided by investing activities	633,214	623,506
Net increase in cash and cash equivalents	1,795,037	1,410,756
Cash and cash equivalents, beginning of year	17,823,715	16,412,959
Cash and cash equivalents, end of year	\$ 19,618,752	\$ 17,823,715
RECONCILIATION TO STATEMENTS OF NET POSITION:		
Cash and investments	\$ 6,661,512	\$ 5,441,967
Restricted cash and investments	12,957,240	12,381,748
Total cash and cash equivalents	\$ 19,618,752	\$ 17,823,715
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING		
ACTIVITIES:		
Operating income	\$ 3,997,181	\$ 2,458,754
Adjustments to reconcile operating income to	\$ 3,337,161	۶ 2,438,734
net cash provided by operating activities:		
Depreciation	1,555,935	1,615,194
(Increase) decrease in accounts receivable	(353,255)	(478,206)
(Increase) decrease in inventories	2,744	(28,284)
(Increase) decrease in prepaid items	13,343	(27,508)
(Increase) decrease in deferred outflows of resources	(571,451)	(15,453)
Increase (decrease) in customer deposits	(532,979)	(560,578)
Increase (decrease) in accounts payable	106,366	(899,664)
Increase (decrease) in accrued expenses	15,338	(243,761)
Increase (decrease) in other current liabilities	-	(1,331)
Increase (decrease) in compensated absences	44,620	53,095
Increase (decrease) in net pension liability	541,404	788,695
Increase (decrease) in total OPEB liability	126,639	160,498
Increase (decrease) in deferred inflows	6,932_	(611,679)
Total adjustments	955,636	(248,982)
Net cash provided by operating activities	\$ 4,952,817	\$ 2,209,772
NON-CASH ITEM:		
Amortization of bond premium	\$ 147,628	\$ 147,629

The notes to the basic financial statements are an integral part of this statement.



This page is intentionally left blank.

The notes to the basic financial statements include a summary of significant accounting policies and other information considered essential to fully disclose and fairly present the transactions and financial position of the District, as follows:

Note 1 - Summary of Significant Accounting Policies

Note 2 - Cash and Investments

Note 3 - Receivables

Note 4 - Capital Assets

Note 5 - Line of Credit

Note 6 - Long-Term Debt

Note 7 - Operating Leases

Note 8 - Defined Benefit Pension Plan

Note 9 - Other Post-Employment Benefits

Note 10 - Risk Management

Note 11 - Commitments and Contingencies

Note 12 - Restatement of Net Position

Note 1 – Summary of Significant Accounting Policies

A. Reporting Entity

The Marina Coast Water District (District) is organized for the purpose of providing water distribution services as well as wastewater collection for the residents and businesses of the City of Marina and the former Fort Ord (Ord Community) area. The District's former name was Marina County Water District and in July 1993 the name was changed by the Board of Directors (Board) to Marina Coast Water District.

B. Basis of Presentation

The accounts of the District are organized and operated on a fund basis. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, deferred outflows/inflows of resources, net position, revenues and expenses.

All activities of the District are accounted for within proprietary (enterprise) funds. Proprietary funds are used to account for operations that are (a) financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through users charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or operating income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

The District presents the following funds in the accompanying Supplementary Information:

The **Marina Water fund** accounts for operations of the water system within the central Marina service area.

The **Marina Sewer fund** accounts for operations of the wastewater collection system within the central Marina service area.

The **Ord Water or Ord Community Water fund** accounts for operations of the water system within the former Fort Ord service area.

The **Ord Sewer or Ord Community Sewer fund** accounts for operations of the wastewater collection system within the former Fort Ord service area.

The **New Water fund** accounts for operations of the recycled or augmented water system within the District service area.

Note 1 – Summary of Significant Accounting Policies (continued)

B. Basis of Presentation (concluded)

The **Regional Project fund** accounts for operations of the Regional Desalination Project.

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services, and producing and delivering goods in connection with a proprietary fund's principal ongoing operation. The principal operating revenues of the District are charges to customers for sales and services. The District's operating revenues, such as charges for services, result from exchange transactions associated with the principal activity of the District. Exchange transactions are those in which each party receives and gives up essentially equal values. Nonoperating revenues, such as investment earnings, result from nonexchange transactions or ancillary activities, in which the District gives (receives) value without directly receiving (giving) equal value in exchange.

C. Measurement Focus and Basis of Accounting

Measurement focus is a term used to describe "which" transactions are recorded within the various financial statements. Basis of accounting refers to "when" transactions are recorded regardless of the measurement focus applied. The accompanying financial statements are reported using the "economic resources measurement focus", and the accrual basis of accounting. Under the economic measurement focus all assets and liabilities (whether current or noncurrent) associated with these activities are included on the Statement of Net Position. The Statement of Revenue, Expenses, and Changes in Net Position present increases (revenues) and decreases (expenses) in total net position. Under the accrual basis of accounting, revenues are recorded when earned and expenses when a liability is incurred, regardless of the timing of the related cash flows.

D. Statement of Net Position

Net Position consists of the following components:

• Net Investment in Capital Assets – This component consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the deferred inflows of resources and the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of these assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of invested in capital assets, net of related debt. Rather, that portion of the debt is included in the same component as the unspent proceeds.

Note 1 – Summary of Significant Accounting Policies (continued)

D. Statement of Net Position (concluded)

Net investment in capital assets as of June 30, 2018 and 2017 are as follows:

	2018	2017
Capital assets, net	\$ 203,057,824	\$ 178,427,499
2010 Revenue Bonds	(2,607,609)	(3,438,913)
2015 Series A Bonds	(30,595,168)	(31,661,492)
BLM installment loan	(2,722,387)	(2,799,880)
Line of credit	(6,562,695)	-
Deferred gains on refunding debt	(664,545)	(699,521)
Net investment in capital assets	\$ 159,905,420	\$ 139,827,693

- **Restricted** This component consists of external constraints imposed by creditors, grantors, contributors or laws or regulations of other governments. It also pertains to constraints imposed by law or constitutional provisions or enabling legislation.
- Unrestricted This component consists of those components that do not meet the
 definition of "restricted" or "net investment in capital assets". Amounts included as
 unrestricted net position are available for designation for specific purposes established by
 the District's Board of Directors.

E. Statement of Revenues, Expenses, and Changes in Net Position

Operating revenues, such as charges for services (water sales, wastewater sales, and other services and fees) result from exchange transactions associated with the principal activity of the District. Exchange transactions are those in which each party receives and gives approximately equal value. Nonoperating revenues, such as interest earned, result from nonexchange transactions or ancillary activities in which the District gives (receives) value without directly receiving (giving) approximately equal value.

Operating expenses include the cost of sales and services, administration, operations and maintenance, laboratory, conservation, engineering, and depreciation. All expenses not meeting these categories are reported as nonoperating.

F. Budget

Budget integration is employed as a management control device. Budgets are formally adopted by the Board of Directors and take effect starting July 1 of each year. The budgets are used as a management tool and are not a legal requirement.

Note 1 – Summary of Significant Accounting Policies (continued)

G. Cash, Cash Equivalents, and Investments

For purposes of the Statement of Cash Flows, the District considers all highly liquid investment instruments purchased with a maturity of three months or less to be cash and cash equivalents. The short-term investments include the California Local Agency Investment Fund.

All investments are stated at fair value. Fair value is the value at which a financial instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

U.S. GAAP defines fair values, establishes a framework for measuring fair value and establishes disclosures about fair value measurement. Investments, unless otherwise specified, recorded at fair value in the Statement of Net Position, are categorized based upon the level of judgement associated with the inputs used to measure their fair value. Levels of inputs are as follows:

Level 1 – Inputs are unadjusted, quoted prices for identical assets and liabilities in active markets at the measurement date.

Level 2 – Inputs, other than quoted prices included in Level 1, that are observable for the assets or liabilities through corroboration with market data at the measurement date.

Level 3 – Unobservable inputs that reflect management's best estimate of what market participants would use in pricing the assets or liabilities at the measurement date.

H. Accounts Receivable

The District extends credit to customers in the normal course of operations and accounts for potential losses using the allowance method. Accounts receivable consists of utility customer receivables and receivables from agreements with local developers to provide water from its desalination plant.

Management evaluates all accounts receivable and if it is determined that they are uncollectible they are written off as bad debt expense. Also, management provides an allowance for uncollectible accounts related to utility customers and local developers.

Note 1 – Summary of Significant Accounting Policies (continued)

I. Inventories

Inventories are stated at cost, determined on a first-in, first-out basis.

J. Restricted Assets

Restricted assets are financial resources generated for a specific purpose such as construction of improvements and financing of debt obligations. These assets are for the benefit of a distinct group and as such are legally or contractually restricted.

K. Bond Premiums

Bond premiums are netted against the related debt and included in bonds payable.

L. Capital Assets

The District's capital assets are stated at historical cost or estimated historical cost when original cost was not available, net of accumulated depreciation. Contributed assets are recorded at their acquisition value at the date of donation. The District's policy is to capitalize all capital assets with costs exceeding a minimum threshold of \$5,000.

Depreciation is recorded using the straight-line method over the estimated useful lives of the capital assets which range from 30 to 60 years for the plant and pipelines, and 5 to 10 years for other equipment.

The cost of routine maintenance and repairs that do not increase the value or extend the life of a capital asset are not capitalized, but are expensed.

M. Compensated Absences

All earned vacation hours accumulated up to 260 hours, holiday, and compensation time, is payable upon termination or retirement and accrued as compensated absences.

N. Rebate Arbitrage

Rebate arbitrage earnings related to the 2015 Series A revenue refunding bonds are being recorded as a liability. As of June 30, 2018 and 2017, the District's liability was estimated at \$0 for both years.

Note 1 – Summary of Significant Accounting Policies (continued)

O. Interfund Transactions

Interfund transactions may result from loans or transfers. "Due to" and "due from" balances are generally used to reflect short-term interfund receivables and payables where as "advance to" and "advance from" balances are for long-term.

P. Property Taxes

Property taxes in California are levied in accordance with Article XIIIA of the State Constitution at 1% of countywide assessed valuations. This levy is allocated pursuant to state law to the appropriate units of local governments.

Property tax revenue is recognized in the fiscal year in which taxes are levied. Taxes are collected by Monterey County; however, the District does not currently receive tax revenue.

The property tax calendar is as follows:

Lien Date: January 1 Levy Date: July 1

Due Date: November 10 (First Installment), February 10 (Second Installment)
Delinquent Date: December 11 (First Installment), April 11 (Second Installment)

Q. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and assumptions.

R. Pension

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the plans and additions to/deductions from the plans' fiduciary net position have been determined on the same basis as they are reported by the plans (Note 8). For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefits terms. Investments are reported at fair value.

Note 1 – Summary of Significant Accounting Policies (continued)

R. Pension (concluded)

The following timeframes are used for pension reporting:

Valuation Date: June 30, 2016 Measurement Date: June 30, 2017

Measurement Period: July 1, 2016 to June 30, 2017

Gains and losses related to changes in total pension liability and fiduciary net position are recognized in pension expense systematically over time. The first amortized amounts are recognized in pension expense for the year the gain or loss occurs. The remaining amounts are categorized as deferred outflows and deferred inflows of resources related to pensions and are to be recognized in future pension expense. The amortization period differs depending on the source of the gain or loss. The difference between projected and actual earnings is amortized straight-line over 5 years. All other amounts are amortized straight-line over the average expected remaining service lives of all members that are provided with benefits (active, inactive, and retired) as of the beginning of the measurement period.

S. Other Post-Employment Benefits (OPEB)

For purposes of measuring the total OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense information about the fiduciary net position of the District Retiree Benefits Plan (the Plan) and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, the Plan recognizes benefit payments when due and payable in accordance with the benefit terms.

Generally accepted accounting principles require that the reported results must pertain to liability and fiduciary net position information within certain defined timeframes. The following timeframes are used for OPEB reporting:

Valuation Date: June 30, 2017 Measurement Date: June 30, 2017

Measurement Period: July 1, 2016 to June 30, 2017

Note 1 – Summary of Significant Accounting Policies (concluded)

T. Implementation of New GASB Pronouncements

GASB has issued Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. This statement establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources, and expenses for post-employment benefits other than pension. Accounting changes adopted to conform to the provisions of this statement should be applied retroactively. See Note 12 for restatement of net position as a result of implementation.

GASB has issued Statement No. 81, *Irrevocable Split-Interest Agreements*. This Statement requires that a government that receives resources pursuant to an irrevocable split-interest agreement recognize assets, liabilities, and deferred inflows of resources at the inception of the agreement. Furthermore, this Statement requires that a government recognize assets representing its beneficial interests in irrevocable split-interest agreements that are administered by a third party, if the government controls the present service capacity of the beneficial interests. This Statement requires that a government recognize revenue when the resources become applicable to the reporting period. This statement became effective for periods beginning after December 15, 2016 and did not have a significant impact on the District's financial statements for the years ended June 30, 2018 and 2017.

GASB has issued Statement No. 85, *Omnibus 2017*. This Statement addresses practice issues that have been identified during implementation and application of certain GASB Statements. This Statement also addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits [OPEB]). This statement became effective for periods beginning after June 15, 2017 and did not have a significant impact on the District's financial statements for the years ended June 30, 2018 and 2017.

GASB has issued Statement No. 86, Certain Debt Extinguishment Issues. The primary objective of GASB 86 is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets are acquired with only existing resources – resources other than the proceeds of refunding debt. This statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. The requirements of GASB 86 are effective for fiscal years beginning after June 15, 2017. This statement did not have a significant impact on the District's financial statements for the years ended June 30, 2018 and 2017.

Note 2 - Cash and Investments

Cash and investments as of June 30, 2018 and 2017 are classified in the accompanying financial statements as follows:

	2018	2017
Statement of Net Position:		
Cash and investments	\$ 6,661,512	\$ 5,441,967
Restricted cash and investments	12,957,240	12,381,748
Total cash and investments	\$ 19,618,752	\$ 17,823,715

Cash and investments as of June 30, 2018 and 2017 consisted of the following:

		2018	 2017
Cash on hand	\$	1,150	\$ 1,150
Deposits with financial institutions		3,755,479	866,170
Investments	1	15,862,123	 16,956,395
Total cash and investments	\$ 1	19,618,752	\$ 17,823,715

Investments Authorized by the District's Investment Policy

The District's investment policy only authorizes investment in money market funds, certificates of deposits, guaranteed investment contracts (GIC), and the local government investment pool administered by the State of California's Local Agency Investment Fund (LAIF). The District's investment policy does not contain any specific provisions intended to limit the District's exposure to interest rate risk, credit risk, and concentration of credit risk.

Fair Value Measurements

The following is a summary of the fair value hierarchy for the investments of the District as of June 30, 2018. The District does not value any of its investments using level 3 inputs.

	Quoted Prices Level 1	Observable Inputs Level 2	Uncategorized	Total
State Investment Pool (LAIF) Money Market Fund	\$ - -	\$ - -	\$ 7,611,520 7,397,736	\$ 7,611,520 7,397,736
Held by Fiscal Agent: UnionBank	852,867			852,867
Total Investments	\$ 852,867	\$ -	\$ 15,009,256	\$ 15,862,123

Note 2 - Cash and Investments (continued)

The fair value hierarchy for the investments of the District as of June 30, 2017 is as follows:

Quoted Prices	Observable Inputs	l la cata ca visa d	Takal
reveri	Lever 2	Uncategorized	Total
\$ -	\$ -	\$ 7,522,622	\$ 7,522,622
-	-	8,583,278	8,583,278
850,495			850,495
\$ 850,495	\$ -	\$ 16,105,900	\$ 16,956,395
	Prices Level 1 \$ 850,495	Prices Inputs Level 1	Prices Inputs Level 1 Level 2 Uncategorized \$ - \$ - \$ 7,522,622 8,583,278 850,495

Disclosures Relating to Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. Information about the sensitivity of the fair values of the District's investments to market interest rate fluctuations is provided by the following table that shows the maturity date of each investment:

	Fair Value				
		2018		2017	Maturity
State Investment Pool (LAIF)	\$	7,611,520	\$	7,522,622	N/A - due on demand
Money Market Fund		7,397,736		8,583,278	N/A - due on demand
Debt Reserve Fund (T-Fund Money Market)		852,867		850,495	36 months to maturity
Total	\$	15,862,123	\$	16,956,395	

GIC – Guaranteed Investment Contract LAIF – Local Agency Investment Fund

<u>Disclosures Relating to Credit Risk</u>

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. LAIF does not have a rating provided by a nationally recognized statistical rating organization.

Concentration of Credit Risk

The investment policy of the District contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. There are no investments in any one issuer that is in excess of five percent of the District's total investments.

Note 2 - Cash and Investments (continued)

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government agency will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The California Government Code and the District's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits, other than the following provision for deposits: The California Government Code requires that a financial institution secure deposits made by state or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under state law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies.

California law also allows financial institutions to secure District deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits.

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government agency will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The California Government Code and the District's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for investments. With respect to investments, custodial credit risk generally applies only to direct investments in marketable securities. Custodial credit risk does not apply to a local government's indirect investment in securities through the use of mutual funds or government investment pools (such as LAIF).

Collateral and Categorization Requirements

On June 30, 2018, the District's carrying amount of demand deposits was \$3,755,479 and the bank account balance was \$7,001,379. The difference of \$3,245,900 represented outstanding checks and deposits in transit. Of the total deposit balance, \$250,000 was insured by federal depository insurance and \$6,751,379 was collateralized 110% in accordance with California Government Code requirements by securities held by the pledging financial institution in the District's name.

On June 30, 2017, the District's carrying amount of demand deposits was \$866,170, and the bank account balance was \$1,190,463. The difference of \$324,293 represented outstanding checks and deposits in transit. Of the total deposit balance, \$250,000 was insured by federal depository insurance and \$940,463 was collateralized 110% in accordance with California Government Code requirements by securities held by the pledging financial institution in the District's name.

Note 2 - Cash and Investments (concluded)

Investment in State Investment Pool

The District is a voluntary participant in the Local Agency Investment Fund (LAIF). LAIF, established in 1977, is regulated by the California Government Code Section 16429 and under the day-to-day administration of the State Treasurer.

The fair value of the District's investment in this pool is reported in the accompanying financial statements at amounts based upon the District's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis.

The District's investments with LAIF include a portion of the pooled funds invested in mediumterm and short-term structured notes and asset-backed securities. These investments include the following:

<u>Structured Notes</u> are debt securities (other than asset-backed securities) whose cash flow characteristics (coupon rate, redemption amount, or stated maturity) depend upon one or more indices and/or that have embedded forwards or options.

<u>Asset-Backed Securities</u>, the bulk of which are mortgage-backed securities, entitle their purchasers to receive a share of the cash flows from a pool of assets such as principal and interest repayments from a pool of mortgages (such as Collateralized Mortgage Obligations) or credit card receivables.

The Local Investment Advisory Board provides oversight for LAIF. The Board consists of five members as designated by statute. The State Treasurer, as Chairman, or his designated representative appoints two members qualified by training and experience in the field of investment or finance, and two members who are treasurers, finance or fiscal officers or business managers employed by any county, city or local district or municipal corporation of this state.

As of June 30, 2018 and 2017, the District had \$7,611,520 and \$7,522,622, respectively invested in LAIF, which had invested 2.67% and 2.89%, respectively, of the pooled investment funds in short-term and medium-term structured notes and asset-backed securities. The fair value of the District's position in the pool is the same as the value of the pool shares.

Note 3 – Receivables

At June 30, 2018 and 2017, accounts receivable consisted of utility customer receivables of \$1,771,540 and \$2,064,365, respectively. The allowance for uncollectible accounts related to utility customers was \$108,696 and \$128,911, respectively.

Other receivable balance, net of allowance for doubtful accounts, currently outstanding at June 30, 2018 and 2017 was \$7,316,929 and \$405,055, respectively. Other receivables include balances from agreements with local developers, grant receivables, lease payments, and miscellaneous reimbursements.

Note 4 - Capital Assets

Changes in capital assets for the fiscal year ended June 30, 2018, is as follows:

	Balance July 1, 2017	Additions	Deletions	Transfers/ Reclassifications	Balance at June 30, 2018
Non-depreciable assets:					
Land	\$ 9,582,134	\$ -	\$ -	\$ -	\$ 9,582,134
Property easement	24,900,000	281,584	-	-	25,181,584
Water/sewer rights	75,129,410	-	-	-	75,129,410
Construction in progress (1)	38,218,656	25,494,433		(507,221)	63,205,868
Total non-depreciable assets	147,830,200	25,776,017	_	(507,221)	173,098,996
Depreciable assets:					
Land improvements	190,092	_	_	_	190,092
Buildings and improvements	8,473,891	28,932	_	-	8,502,823
Equipment	3,495,917	122,151	(53,944)	-	3,564,124
Infrastructure	59,669,302	259,273	-	507,221	60,435,796
Total depreciable assets	71,829,202	410,356	(53,944)	507,221	72,692,835
Less accumulated depreciation:					
Land improvements	(51,073)	(9,714)	_	-	(60,787)
Buildings and improvements	(1,557,393)	(221,872)	-	-	(1,779,265)
Equipment	(2,823,412)	(112,420)	53,831	-	(2,882,001)
Infrastructure	(36,800,025)	(1,211,929)	-	-	(38,011,954)
Total accumulated depreciation	(41,231,903)	(1,555,935)	53,831	-	(42,734,007)
Depreciable assets, net	30,597,299	(1,145,579)	(113)	507,221	29,958,828
Total capital assets, net	\$ 178,427,499	\$ 24,630,438	\$ (113)	\$ -	\$ 203,057,824

⁽¹⁾ Construction in progress includes capitalized interest in the amount of \$2,610,678 for the year ended June 30, 2018.

Note 4 - Capital Assets (concluded)

Changes in capital assets for the fiscal year ended June 30, 2017, is as follows:

	Balance			Transfers/	Balance at
	July 1, 2016	Additions	Deletions	Reclassifications	June 30, 2017
Non-depreciable assets:					
Land	\$ 9,582,134	\$ -	\$ -	\$ -	\$ 9,582,134
Property easement	24,900,000	-	-	-	24,900,000
Water/sewer rights	75,129,410	-	-	-	75,129,410
Construction in progress (1)	34,393,930	4,027,104		(202,378)	38,218,656
Total non-depreciable assets	144,005,474	4,027,104		(202,378)	147,830,200
Depreciable assets:					
Land improvements	190,092	-	-	-	190,092
Buildings and improvements	8,437,153	19,467	-	17,271	8,473,891
Equipment	3,438,923	92,940	(18,675)	(17,271)	3,495,917
Infrastructure	59,466,924			202,378	59,669,302
Total depreciable assets	71,533,092	112,407	(18,675)	202,378	71,829,202
Less accumulated depreciation:					
Land improvements	(41,359)	(9,714)	-	-	(51,073)
Buildings and improvements	(1,335,618)	(221,775)	-	-	(1,557,393)
Equipment	(2,722,059)	(120,028)	18,675	-	(2,823,412)
Infrastructure	(35,536,348)	(1,263,677)	-		(36,800,025)
Total accumulated depreciation	(39,635,384)	(1,615,194)	18,675		(41,231,903)
Depreciable assets, net	31,897,708	(1,502,787)		202,378	30,597,299
Total capital assets, net	\$ 175,903,182	\$ 2,524,317	\$ -	\$ -	\$ 178,427,499

⁽¹⁾ Construction in progress includes capitalized interest in the amount of \$2,610,678 for the year ended June 30, 2017.

Depreciation Allocations

Depreciation expense was charged to functions and programs based on their usage of the related assets. The depreciation expense for the years ended June 30, 2018 and 2017 totaled \$1,555,935 and \$1,615,194, respectively.

Note 5 – Line of Credit

The District submitted a Financial Assistance Application for a State Revolving Fund (SRF) Loan to the State Water Resources Control Board (SWRCB) to finance the costs of constructing certain transmission and distribution pipelines and other infrastructure associated with the RUWAP Pipeline. This pipeline is an advanced treated recycled water conveyance system intended to serve both the District and Monterey One Water. Due to SRF loan draws being funded on a reimbursement basis, interim financing was required to cash flow anticipated costs in connection with the engineering, design and construction of the recycled water pipeline. On May 15, 2017, the Board adopted Resolution No. 2017-31 to obtain interim financing for the RUWAP through a Revolving Line of Credit (RLOC) from BBVA Compass Bank in the amount of \$16 million. The RLOC has a 36-month term with an interest rate of 65% of 1-month LIBOR plus a spread of 1.5% combined with no additional fee on any unused portion of the RLOC. The RLOC is secured by the SRF loan agreements, an agreement with Monterey One Water for their capacity share of the transmission pipeline and contributions from the Fort Ord Reuse Authority. At June 30, 2018, the outstanding line of credit balance was \$6,562,695.

Note 6 - Long-Term Debt

Changes in long-term liability activity for the fiscal year ended June 30, 2018, was as follows:

	Beginning Balance	Additions	Reductions	Ending Balance	Due within One Year
2010 Revenue Bonds	\$ 3,405,000	\$ -	\$ (820,000)	\$ 2,585,000	\$ 850,000
plus unamortized premiums	33,913	-	(11,304)	22,609	-
Net 2010 Revenue Bonds	3,438,913	-	(831,304)	2,607,609	850,000
2015 Series A Bonds	28,935,000	-	(930,000)	28,005,000	960,000
plus unamortized premiums	2,726,492	-	(136,324)	2,590,168	
Net 2015 Series A Bonds	31,661,492	-	(1,066,324)	30,595,168	
BLM installment loan Compensated absences Totals	2,799,880 402,531 \$ 38,302,816	404,493 \$ 404,493	(77,493) (359,873) \$ (2,334,994)	2,722,387 447,151 \$ 36,372,315	82,013 50,617 \$ 1,942,630

Note 6 - Long-Term Debt (continued)

Changes in long-term liability activity for the fiscal year ended June 30, 2017, was as follows:

	Beginning Balance	Additions	Reductions	Ending Balance	Due within One Year
2010 Revenue Bonds	\$ 4,190,000	\$ -	\$ (785,000)	\$ 3,405,000	\$ 820,000
plus unamortized premiums	45,217	-	(11,304)	33,913	-
Net 2010 Revenue Bonds	4,235,217	-	(796,304)	3,438,913	820,000
2015 Series A Bonds	29,840,000		(905,000)	28,935,000	930,000
plus unamortized premiums	2,862,817		(136,325)	2,726,492	-
Net 2015 Series A Bonds	32,702,817		(1,041,325)	31,661,492	930,000
BLM construction loan BLM installment loan Compensated absences Totals	2,776,000 - 349,436 \$ 40,063,470	2,799,880 382,801 \$ 3,182,681	(2,776,000) - (329,706) \$ (4,943,335)	2,799,880 402,531 \$ 38,302,816	77,493 34,229 \$ 1,861,722

A. BLM Installment Loan

On November 17, 2014, the Board adopted Resolution No. 2014-46 authorizing the construction of Building E at 940 Imjin Office Parkway to house the Bureau of Land Management Regional Office. On May 9, 2015, the Board adopted Resolution No. 2015-21 to approve the financing of the construction by Rabobank, N.A., which closed on August 7, 2015.

Construction costs were funded by a one-year construction loan in the amount of \$2,776,000 convertible to a 10-year term loan upon occupancy by BLM. At building completion, the interest rate would be based on 10-year LIBOR SWAP index + 2.5% amortized over 25 years with no prepayment penalty and an automatic six-month extension option. The automatic term extension was exercised in August 2016 due to the District not receiving final notice of completion and final certificate of occupancy from the City of Marina by the original term date of the loans which was required by Rabobank. On July 20, 2016, staff received notification that Rabobank would not be able to term out the construction loan via an interest rate swap loan due to changes in Bank policy shortly after the District's loan was consummated. Further, Rabobank would not be able to exclude a prepayment penalty clause in the terms of the converted loan.

Note 6 - Long-Term Debt (continued)

A. BLM Installment Loan (concluded)

These changes in funding instruments and loan terms required approval by the Board due to the break in terms of the previously approved funding facility. On September 19, 2016, the Board adopted Resolution No. 2016-58 amending the funding terms of the construction loan conversion, but directed the General Manager to also look into other financing options and authorized him to enter into other funding agreements at his discretion. Holman Capital proposed an Installment Purchase Agreement (Agreement): a 20-year fixed rate loan secured by net revenues of the District in which the loan would be paid off at the end of the loan term. The Agreement financed the conversion of the construction loan of \$2,776,000, the Rabobank exit fee of \$13,880 and the documentation and legal fee for Holman Capital of \$10,000 for a total of \$2,799,880. The interest rate is a fixed all in rate of 5.75% which is a taxable interest rate due to the private activity use of leasing the building. Commercial loan rates were at 5.00% - 7.00% for loans above \$250,000+ at time of offer. In addition, there is no prepayment penalty which gives the District the ability to refinance the loan if rates were to decrease. Holman Capital also does not require the Final Notice of Occupancy in order to convert the construction loan. Upon review of the proposed Agreement from Holman Capital by the District's Bond Counsel, General Counsel and Financial Advisor, staff determined that the Agreement was a prudent option for the District for the conversion of the Rabobank construction loan and executed the Agreement on January 20, 2017. As of June 30, 2018 and 2017, the outstanding balance was \$2,722,387 and \$2,799,880, respectively.

Future payments are as follows:

Year Ending	BLM Installment Loan							
June 30,	Pr	rincipal			Interest		Total	
2019	\$	82,013		\$	155,375		\$	237,388
2020		86,797			150,591			237,388
2021		91,859			145,529			237,388
2022		97,217			140,171			237,388
2023		102,887			134,501			237,388
2024-2028		611,767			575,174			1,186,941
2029-2033		812,240			374,700			1,186,940
2034-2037		837,607			111,946	_		949,553
	\$	2,722,387		\$	1,787,987	=	\$	4,510,374

Note 6 - Long-Term Debt (continued)

B. 2010 Revenue Bonds

On December 16, 2010, the District issued refunding revenue bonds in the amount of \$8,495,000 due in semi-annual installments on December 1 and June 1 through 2020 at a weighted average interest rate of 4.340% per annum. The proceeds from the bond issue were used to refinance the Armstrong Ranch Promissory Note. The 2010 bonds are payable solely from, and secured by, the revenues received from the operation of the District's water and wastewater systems. The outstanding balance at June 30, 2018 and 2017 was \$2,585,000 and \$3,405,000, respectively.

Future payments are as follows:

Year Ending	2010 Subordinate	2010 Subordinate Enterprise Revenue Refunding Bonds				
June 30,	Principal	Interest	Total			
2019	\$ 850,000	\$ 129,250	\$ 979,250			
2020	1,735,000	86,750	1,821,750			
	\$ 2,585,000	\$ 216,000	\$ 2,801,000			

The purpose of the debt was to change the rate of interest from a variable rate to a fixed rate. The District did not calculate the difference in the debt service payments or the economic gain or loss.

C. 2015 Series A & B Revenue Bonds

On June 30, 2015, the District issued 2015 Senior Lien Enterprise Revenue Refunding Bonds, Tax-Exempt Series A in the amount of \$29,840,000 and Federally Taxable Series B in the amount of \$1,115,000 (the "Bonds"). The Bonds were issued to refinance the District's outstanding 2006 Certificates of Participation (COPs) which were issued for the purpose of financing improvements to the District's water and wastewater systems and to refinance prior obligations. The Bonds, which closed on July 15, 2015, were an advance refunding of the 2006 COPs as the COPs were not callable until June 1, 2016. An escrow account, funded with treasury securities, was set up and used to pay the 2006 COPs. A portion of the 2006 COPs were utilized to refinance prior obligations on an advance basis. As a result, the Taxable Series B were required to refund a portion of the 2006 COPs. The cash flows required to service the 2006 COP debt was \$52,402,343 and the cash flows required to service the 2015 Senior Lien Refunding Revenue Bonds was \$49,573,943 for an economic gain of \$2,829,400 with a net present value of \$2,644,483. The deferred gain as a result of the refunding debt amounted to \$734,497. The true interest cost, which includes all annualized costs, is 3.712% for the Series A Bonds and 1.544% for the Series B Bonds. The outstanding balance at June 30, 2018 and 2017 was \$28,005,000 and \$28,935,000, respectively.

Note 6 - Long-Term Debt (concluded)

C. 2015 Series A & B Revenue Bonds (concluded)

Future payments are as follows:

Year Ending	2015 Series A Revenue Refunding Bonds					
June 30,	Principal	Interest	Total			
2019	\$ 960,000	\$ 1,292,550	\$ 2,252,550			
2020	995,000	1,254,150	2,249,150			
2021	1,035,000	1,214,350	2,249,350			
2022	1,090,000	1,162,600	2,252,600			
2023	1,130,000	1,119,000	2,249,000			
2024-2028	6,520,000	4,738,600	11,258,600			
2029-2033	8,275,000	2,975,000	11,250,000			
2034-2037	8,000,000	1,001,963	9,001,963			
	\$ 28,005,000	\$ 14,758,213	\$ 42,763,213			

D. Bond Premiums

Unamortized bond premiums are netted against the related debt and included in bonds payable. They are amortized annually to interest expense. Amortization expense for the years ended June 30, 2018 and 2017 was \$147,628 and \$147,629, respectively.

E. Compensated Absences

District employees accumulate earned, but unused, vacation and sick pay benefits which can be converted to cash at termination of employment. The compensated absences balance at June 30, 2018 and 2017 was \$447,151 and \$402,531, respectively.

Note 7 – Operating Leases

The District entered into operating lease agreements in connection with the lease of office copiers, postage machine, and phone equipment. The District's postage machine is a cancelable lease. The other leases for the office copiers and phone equipment are non-cancelable leases.

Minimum lease payments under the obligations are as follows:

Year ending June 30,	
2019	\$ 10,312
2020	10,312
2021	 9,229
Total	\$ 29,853

Note 7 – Operating Leases (concluded)

The District's total operating lease expense for the years ended June 30, 2018 and 2017 was \$19,111 and \$25,679, respectively.

Note 8 - Defined Benefit Pension Plan

A. General Information

Plan Description

The Miscellaneous Plan of the Marina Coast Water District (Miscellaneous Plan) is part of the Public Agency portion of the California Public Employees Retirement System (CalPERS), a cost-sharing multiple-employer defined benefit plan administered by CalPERS, which acts as a common investment and administrative agent for participating public employers within the State of California. Menus of benefit provisions as well as other requirements are established by state statutes within the Public Employees' Retirement Law. The District selects optional benefit provisions from the benefit menu by contract with CalPERS and adopts those benefits through resolution. CalPERS issues a separate comprehensive annual financial report. Copies of the CalPERS' annual financial report may be obtained from CalPERS Executive Office - 400 Q Street - Sacramento, CA 95811.

Benefits Provided

CalPERS provides service retirement and disability benefits, annual cost of living adjustments, and death benefits to plan members, who must be public employees and beneficiaries. Benefits are based on years of credited service, equal to one year of full time employment. Members with five years of total service are eligible to retire at age 50 with statutorily reduced benefits. All members are eligible for non-duty disability benefits after 5 years of service. The death benefit is one of the following: the Basic Death Benefit, the 1957 Survivor Benefit, or the Optional Settlement 2W Death Benefit. The cost of living adjustments for each plan are applied as specified by the Public Employees' Retirement Law.

Note 8 - Defined Benefit Pension Plan (continued)

A. General Information (continued)

The Plan's provisions and benefits in effect at June 30, 2018 are summarized as follows:

	Miscellaneous		
	Prior to	On or After	
Hire Date	July 1, 2015	July 1, 2015	
Benefit formula	2% @ 60	2% @ 62	
Benefit vesting schedule	5 years service	5 years service	
Benefit payments	monthly for life	monthly for life	
Retirement age	50 - 63+	52-67+	
Monthly benefits, as a % of eligible compensation	1.1% to 2.4%	1.0% to 2.5%	
Required employee contribution rates	7.00%	6.25%	
Required employer contribution rates	7.653%	6.533%	

The Plan's provisions and benefits in effect at June 30, 2017 are summarized as follows:

	Miscellaneous		
	Prior to	On or After	
Hire Date	July 1, 2015	July 1, 2015	
Benefit formula	2% @ 60	2% @ 62	
Benefit vesting schedule	5 years service	5 years service	
Benefit payments	monthly for life	monthly for life	
Retirement age	50 - 63+	52-67+	
Monthly benefits, as a % of eligible compensation	1.1% to 2.4%	1.0% to 2.5%	
Required employee contribution rates	7.00%	6.25%	
Required employer contribution rates	7.612%	6.555%	

Contributions

Section 20814(c) of the California Public Employees' Retirement Law requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on July 1 following notice of a change in the rate. Funding contributions for the Plan is determined annually on an actuarial basis as of June 30 by CalPERS. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The District is required to contribute the difference between the actuarially determined rate and the contribution rate of employees.

Note 8 - Defined Benefit Pension Plan (continued)

A. General Information (concluded)

For the years ended June 30, 2018 and 2017, the contributions for the Plan were as follows:

Classic Miscellaneous Plan	2018	2017
Contributions - employer	\$ 221,693	\$ 221,001
Contributions - employee (paid by employer)	202,777	203,217
Total	\$ 424,470	\$ 424,218
PEPRA Miscellaneous Plan		
Contributions - employer	\$ 35,468	\$ 21,477
Contributions - employee	33,932	20,484
Total	\$ 69,400	\$ 41,961

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions

As of June 30, 2018 and 2017, the District reported net pension liabilities of \$2,965,935 and \$2,424,531, respectively, for its proportionate shares of the net pension liability of the Plan.

The District's net pension liability for the Plan is measured as the proportionate share of the net pension liability. The net pension liability of the Plan at June 30, 2018 is measured as of June 30, 2017, and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2016 rolled forward to June 30, 2017 using standard update procedures. The District's proportion of the net pension liability was based on a projection of the District's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined.

For 2017, the District's net pension liability for the Plan was measured as the proportionate share of the net pension liability. The net pension liability of the Plan was measured as of June 30, 2016, and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2015 rolled forward to June 30, 2016 using standard update procedures. The District's proportion of the net pension liability was based on a projection of the District's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined.

Note 8 - Defined Benefit Pension Plan (continued)

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions (continued)

For the year ended June 30, 2018, the District recognized pension expense of \$269,022 and reported deferred outflows of resources and deferred inflows of resources from the following sources:

	Deferred		Deferred		
	0	Outflows of		Inflows of	
Miscellaneous Plan	R	Resources	Resources		
Changes of Assumptions	\$	617,075	\$	(47,053)	
Differences between Expected and					
Actual Experience		4,973		(71,252)	
Differences between Projected and Actual Investment					
Earnings		139,557		-	
Changes in Proportion		159,573		(149,351)	
Differences between Contributions and Proportionate					
Share of Contributions		-		(254,920)	
Contributions made after Measurement Date		257,161		-	
Total	\$	1,178,339	\$	(522,576)	

Contributions subsequent to the measurement date, in the amount of \$257,161, will be recognized as a reduction of the net pension liability in the year ending June 30, 2019. The remaining amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows:

Measurement Period	Deferred Outflows/
Ended June 30:	(Inflows) of Resources
2019	\$ (52,546)
2020	335,367
2021	198,639
2022	(82,858)
2023	-
Thereafter	-

Note 8 - Defined Benefit Pension Plan (continued)

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions (continued)

For the year ended June 30, 2017, the District recognized pension expense of \$196,539 for the Classic Miscellaneous Plan and reported deferred outflows of resources and deferred inflows of resources from the following sources:

	Deferred		Deferred		
	Outf	Outflows of		Inflows of	
Classic Miscellaneous Plan	Res	ources	Resources		
Changes of Assumptions	\$	-	\$	(93,668)	
Differences between Expected and					
Actual Experience		7,632		-	
Differences between Projected and Actual Investment					
Earnings		356,778		-	
Changes in Proportion		-		(228,945)	
Differences between Contributions and Proportionate					
Share of Contributions		-		(158,055)	
Contributions made after Measurement Date		242,478		-	
Total	\$	606,888	\$	(480,668)	

Contributions subsequent to the measurement date, in the amount of \$242,478, will be recognized as a reduction of the net pension liability in the year ending June 30, 2018. The remaining amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows:

Measurement Period	Deferred Outflows/
Ended June 30:	(Inflows) of Resources
2017	\$ (222,145)
2018	(173,740)
2019	153,356
2020	126,271
2021	-
Thereafter	-

Note 8 - Defined Benefit Pension Plan (continued)

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions (continued)

Actuarial Methods and Assumptions Used to Determine Total Pension Liability

For the measurement period ending June 30, 2017 (the measurement date), the total pension liability was determined by rolling forward the June 30, 2016 total pension liability determined in the June 30, 2016 actuarial accounting valuation. The June 30, 2017 total pension liability was based on the following actuarial methods and assumptions:

Actuarial Cost Method Entry Age Normal in accordance with the requirements of

GASB Statement No. 68

Actuarial Assumptions

Discount Rate 7.15% Inflation 2.75%

Salary Increases Varies by Entry Age and Service

Mortality Rate Table Derived using CalPERS' Membership Data for all Funds

Post Retirement Benefit Contract COLA up to 2.75% until Purchasing Power

Increase Protection Allowance Floor on Purchasing Power applies,

2.75% thereafter

The mortality rate table includes 20 years of mortality improvements using Society of Actuaries Scale BB. Please refer to the 2014 experience study report for more information.

All other actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period 1997 to 2011. Further details of the Experience Study can be found on the CalPERS website under Forms and Publications.

Change of Assumptions

In fiscal year 2017, the financial reporting discount rate was lowered from 7.65% to 7.15%.

Note 8 - Defined Benefit Pension Plan (continued)

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions (continued)

Discount Rate

The discount rate used to measure the total pension liability was 7.15%. To determine whether the municipal bond rate should be used in the calculation of a discount rate for each plan, CalPERS stress tested plans that would most likely result in a discount rate that would be different from the actuarially assumed discount rate. Based on the testing, none of the tested plans would run out of assets. Therefore, the current 7.15% discount rate is adequate, and the use of the municipal bond rate calculation is not necessary. The long term expected discount rate of 7.15% will be applied to all plans in the Public Employees Retirement Fund (PERF). The stress test results are available in a detailed report called "GASB Crossover Testing Report" that can be obtained from the CalPERS' website under the GASB 68 section.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows. Using historical returns of all the funds' asset classes, expected compound returns were calculated over the short-term (first 10 years) and the long-term (11+ years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equal to the single equivalent rate calculated above and adjusted to account for assumed administrative expenses.

Note 8 - Defined Benefit Pension Plan (continued)

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions (continued)

The table below reflects the long-term expected real rate of return by asset class for 2018. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation.

Asset Class	Assumed Asset	Real Return	Real Return	
Asset Class	Allocation	Years 1 - 10 (a)	Years 11+ (b)	
Global Equity	47.00%	4.90%	5.38%	
Fixed Income	19.00%	0.80%	2.27%	
Inflation Assets	6.00%	0.60%	1.39%	
Private Equity	12.00%	6.60%	6.63%	
Real Estate	11.00%	2.80%	5.21%	
Infrastructure and Forestland	3.00%	3.90%	5.36%	
Liquidity	2.00%	-0.40%	-0.90%	

- (a) An expected inflation of 2.5% used for this period
- (b) An expected inflation of 3.0% used for this period

The table below reflects the long-term expected real rate of return by asset class for 2017. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation.

Asset Class	Assumed Asset	Real Return	Real Return	
ASSET Class	Allocation	Years 1 - 10 (a)	Years 11+ (b)	
Global Equity	51.00%	5.25%	5.71%	
Global Debt Securities	20.00%	0.99%	2.43%	
Inflation Assets	6.00%	0.45%	3.36%	
Private Equity	10.00%	6.83%	6.95%	
Real Estate	10.00%	4.50%	5.13%	
Infrastructure and Forestland	2.00%	4.50%	5.09%	
Liquidity	1.00%	-0.55%	-1.05%	

- (a) An expected inflation of 2.5% used for this period
- (b) An expected inflation of 3.0% used for this period

Note 8 - Defined Benefit Pension Plan (continued)

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions (continued)

The changes in the net pension liability for 2018 are as follows:

Miscellaneous Risk Pool	Increase (Decrease)			
	Total Pension	Plan Fiduciary	Net Pension	
Balance at: June 30, 2016	Liability	Net Position	Liability (Asset)	
(Valuation Date)	\$ 12,764,694	\$ 10,340,163	\$ 2,424,531	
Changes Recognized for the				
Measurement Period:				
Service Cost	361,779	-	361,779	
Interest on the Total Pension Liability	994,956	-	994,956	
Changes of Benefit Terms	1,784	-	1,784	
Changes of Assumptions	114,515	-	114,515	
Differences between Expected				
and Actual Experience	(14,631)	-	(14,631)	
Plan to Plan Resource Movement	-	(24,052)	24,052	
Contributions from the Employer	-	421,814	(421,814)	
Contributions from Employees	-	155,316	(155,316)	
Net Investment Income	-	577,409	(577,409)	
Benefit Payments, including Refunds				
of Employee Contributions	564,981	564,981	-	
Administrative Expenses	-	(15,126)	15,126	
Recognized difference in proportion	-	(198,362)	198,362	
Net Changes	2,023,384	1,481,980	541,404	
Balance at: June 30, 2017				
•	\$ 14,788,078	¢ 11 022 142	¢ 2065.025	
(Measurement Date)	3 14,766,078	\$ 11,822,143	\$ 2,965,935	

Note 8 - Defined Benefit Pension Plan (continued)

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions (continued)

The changes in the net pension liability for 2017 are as follows:

Miscellaneous Risk Pool	Increase (Decrease)						
	Total Pension Plan Fiduciary			lan Fiduciary	Net Pension		
Balance at: June 30, 2015	Liability		Net Position		Liability (Asset)		
(Valuation Date)	\$	11,876,280	\$	10,240,444	\$	1,635,836	
Changes Recognized for the							
Measurement Period:							
Service Cost		279,601		-		279,601	
Interest on the Total Pension Liability		843,695		-		843,695	
Changes of Benefit Terms		875		-		875	
Changes of Assumptions		(145,706)		-		(145,706)	
Differences between Expected							
and Actual Experience		12,292		-		12,292	
Plan to Plan Resource Movement		-		19,472		(19,472)	
Contributions from the Employer		-		332,300		(332,300)	
Contributions from Employees		-		131,305		(131,305)	
Net Investment Income		-		190,669		(190,669)	
Benefit Payments, including Refunds							
of Employee Contributions		(102,343)		(102,343)		-	
Administrative Expenses		-		(5,512)		5,512	
Recognized difference in proportion		-		(466,172)		466,172	
Net Changes		888,414		99,719		788,695	
Balance at: June 30, 2016							
(Measurement Date)	\$	12,764,694	\$	10,340,163	\$	2,424,531	

Note 8 - Defined Benefit Pension Plan (concluded)

B. Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions (concluded)

<u>Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the</u> Discount Rate

The following represents the District's proportionate share of the net pension liability for the Plan, as well as what the District's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the current rate:

Miscellaneous Plan 2018:

	Discount Rate - 1%		Current Discount		Discount Rate + 1%	
	(6.15%)		Rate (7.15%)			(8.15%)
Plan's Net Pension		4 000 000		2 065 025	_	4 204 205
Liability/ (Asset)	\$	4,999,990	\$	2,965,935	\$	1,281,295

Miscellaneous Plan 2017:

	Discount Rate - 1%		Current Discount		Disc	ount Rate + 1%
	(6.65%)		Rate (7.65%)			(8.65%)
Plan's Net Pension						
Liability/ (Asset)	\$	4,143,056	\$	2,424,531	\$	1,004,255

Pension Plan Fiduciary Net Position

The plan's fiduciary net position disclosed in the GASB 68 accounting valuation report may differ from the plan assets reported in the funding actuarial valuation report due to several reasons. First, for the accounting valuations, CalPERS must keep items such as deficiency reserves, fiduciary self-insurance, and OPEB expense included in fiduciary net position. These amounts are excluded for rate setting purposes in the funding actuarial valuation. In addition, differences may result from early CAFR closing and final reconciled reserves.

C. Payable to the Pension Plan

At June 30, 2018 and 2017, the District reported a payable of \$0 for both years for the outstanding amount of contributions to the pension plan required for year end.

Note 9 – Other Post-Employment Benefits (OPEB)

A. Plan Description

The District administers a single-employer defined-benefit post-employment healthcare plan. Dependents are ineligible to enroll, and benefits do not continue to surviving spouses. Retirees are eligible for medical benefits if they retire at age 55+ and have 20+ years of District service. The District pays for 50% of single party premiums. The District pays 100% of medical, vision, and dental premiums to a retired GM who had at least 3 years of District Service.

B. Employees Covered

At June 30, 2017 (the census date), the benefit terms covered the following employees:

Active employees:	37
Inactive employees currently receiving benefits:	4
Inactive employees entitled to, but not yet receiving benefits:	0
Total:	41

C. Contributions

The contribution requirements of the plan members and the District are established and may be amended by the District's Board of Directors, and/or employee associations. Currently, contributions from plan members are not required. The District pays retiree benefits (premium contributions) as they come due. For fiscal year ended June 30, 2018, the District paid \$20,896 in pay-as-you-go premiums and the estimated implied subsidy was \$22,710 resulting in total payments of \$43,606.

D. Total OPEB Liability

The District's total OPEB liability was measured as of June 30, 2017, and the total OPEB liability used to calculate the total OPEB liability was determined by an actuarial valuation as of June 30, 2017.

Actuarial Assumptions

The total OPEB liability in the June 30, 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

- Inflation: 2.75%
- Salary increases: 2.875%. Additional merit-based increases based on CalPERS merit salary increase tables

Note 9 – Other Post-Employment Benefits (OPEB) (continued)

D. Total OPEB Liability (concluded)

- Healthcare cost trend rates: 7.00% in the first year, trending down to 3.84% over 58 years
- Mortality rates were based on CalPERS tables

Discount Rate

The discount rate used to measure the total OPEB liability is 3.50%. The District's OPEB Plan is an unfunded plan, therefore the discount rate was set to the rate of tax-exempt, high-quality 20-year municipal bonds, as of the valuation date.

E. Changes in the Total OPEB Liability

	Total OPEB
	Liability
Balance as of Report Date June 30, 2017	\$ 2,055,421
Changes for the year:	
Service Cost	129,003
Interest	75,849
Changes in Benefit Terms	-
Differences Between Expected and Actual Experience	-
Changes of Assumptions	-
Benefit Payments, Including Refunds of Employee Contributions	(20,082)
Implicit Rate Subsidy Fulfilled	(14,526)
Net Changes	170,244
Balance as of Report Date June 30, 2018	\$ 2,225,665

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate

The total OPEB liability of the District, as well as what the District's total OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (2.50%) or one percentage point higher (4.50%) follows:

	<u>19</u>	1% Decrease		<u>Discount Rate</u>		1% Increase		
	2.50%		3.50%		4.50%			
Total OPEB Liability	\$	2,608,163	\$	2,225,665	\$	1,915,564		

Note 9 – Other Post-Employment Benefits (OPEB) (continued)

E. Changes in the Total OPEB Liability (concluded)

Sensitivity of the Total OPEB Liability to Changes in the Healthcare Cost Trend Rates

The total OPEB liability of the District, as well as what the District's total OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (6.00%) or one percentage point higher (8.00%) than current healthcare cost trend rates follows:

	1% Decrease		<u>Trend Rate</u>		1% Increase	
	6.0	0% Decreasing	7.00%	% Decreasing	8.0	0% Decreasing
		to 2.84%		to 3.84%		to 4.84%
Total OPEB Liability	\$	1,857,456	\$	2,225,665	\$	2,698,535

F. OPEB Expense and Deferred Inflows and Outflows of Resources Related to OPEB

For the year ended June 30, 2018, the District recognized an OPEB expense of \$204,852. At June 30, 2018, the District reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	 red Outflows of Resources	Deferred Inflows of Resources	
District Contributions Subsequent to the Measurement Date	\$ 43,606	\$	-
Total	\$ 43,606	\$	_

The \$43,606 reported as deferred outflows of resources related to contributions subsequent to June 30, 2017 measurement date will be recognized as a reduction of the total OPEB liability during fiscal year ending June 30, 2019.

G. Annual OPEB Cost and Net OPEB Obligation (GASB 45 Information for 2017)

The annual required contribution (ARC) was determined by an actuarial valuation using the entry age normal actuarial cost method. The actuarial assumptions included a 2.75% investment rate of return. The four initial trend rates for medical costs are 7.00%, 6.50%, 6.00%, and 5.60% to an ultimate rate of 3.94% after 56 years.

Note 9 – Other Post-Employment Benefits (OPEB) (continued)

G. Annual OPEB Cost and Net OPEB Obligation (GASB 45 Information for 2017) (continued)

Projections of benefits for financial reporting purposes are based on the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that smooth the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of any plan assets. Actuarial calculations reflect a long-term perspective and actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The District's OPEB unfunded actuarial accrued liability is being amortized as a level percentage of projected payroll on a closed basis. A closed amortization period of 30 years was established as of July 1, 2010. The remaining amortization period at June 30, 2017 was 23 years.

The annual OPEB cost and the net OPEB obligation at June 30, 2017 was as follows:

	2017
Annual required contribution	\$ 198,020
Interest on net OPEB obligation	24,309
Adjustment to annual required contribution	(36,706)
Annual OPEB cost (expense)	185,623
Contributions made	(20,020)
Contributions made - implicit subsidy	(5,104)
Increase in net OPEB obligation	160,499
Net OPEB obligation - beginning of year	883,924
Net OPEB obligation - end of year	\$ 1,044,423

The District has calculated and recorded the net OPEB liability, representing the difference between the annual OPEB cost and actual contributions, as presented below:

Year		Annual		Actual	Percentage of		Net
Ending	OPEB		Contributions		Annual OPEB		OPEB
June 30,		Cost		as-you-go)	Cost Contributed	0	bligation
2015	\$	156,213	\$	15,472	10%	\$	733,300
2016		167,501		16,877	10%		883,924
2017		185,623		25,124	14%		1,044,423

Note 9 – Other Post-Employment Benefits (OPEB) (concluded)

G. Annual OPEB Cost and Net OPEB Obligation (GASB 45 Information for 2017) (concluded)

Below is the schedule of funding progress related to the most recent actuarial study:

Actuarial	Actuarial	Actuarial	Unfunded Actuarial		Annual	UAAL as a
Valuation	Accrued	Value of	Accrued Liability	Funded	Covered	Percent of
Date	Liability (AAL)	Assets (AVA)	(UAAL)	Ratio	Payroll	Covered Payroll
June 30,	(a)	(b)	(a) - (b)	(b) / (a)	(c)	[(a) - (b)] / (c)
2016	\$2,440,888	\$0	(\$2,440,888)	0%	\$2,954,237	82.6%

Note 10 - Risk Management

The District is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The District participates in the Association of California Water Agencies - Joint Powers Insurance Authority (ACWA-JPIA), a public entity risk pool currently operating as a common risk carrier management and insurance program for member agencies. The ACWA-JPIA arranges and administers pooled coverage programs where loss is retained and shared among its member agencies, and it purchases excess or specialty-insurance coverage above retained limits.

As of June 30, 2018, the District participated in the ACWA-JPIA liability, and property coverage programs as follows:

- General, auto, public officials' liability coverage up to the ACWA/JPIA pooled self-insured limit of \$5,000,000 per occurrence. ACWA/JPIA purchased additional excess coverage layers which increases the coverage limits to \$60,000,000.
- Property loss is paid at the replacement cost for property on file, if replaced within two
 years after the loss, otherwise paid on an actual cash value basis, to a combined total
 of \$500 million, subject to a deductible that generally ranges from \$1,000 to \$50,000
 depending on the type of property.
- Employee dishonesty coverage up to \$100,000, which includes public employee dishonesty, forgery or alteration and computer fraud, with a \$1,000 deductible.

The District has deductibles of \$500 for automobile comprehensive and collision coverage and \$1,000 for other property types. There is no retention for general liability insurance. The District continues to carry commercial insurance for all other risks of loss, including workers' compensation, and employee health and accident insurance. Settled claims have not exceeded insurance coverage in any of the past three fiscal years.

Note 11 - Commitments and Contingencies

In the normal course of operations, various claims have been filed against the District. In the opinion of the District's management and legal counsel, the claims will not have a material impact on the basic financial statements.

The District has received state grants for specific purposes that are subject to review and audit by the state government. Although such audits could result in expenditure disallowances under grant terms, any required reimbursements are not expected to be material.

Regional Desalination Project

In fiscal year 2010-11, the District entered into a Water Purchase Agreement, Settlement Agreement, Reimbursement Agreement, CAW Credit Line Agreement and Regional Desalination Project Management Agreement ("RDP Agreements") with the Monterey County Water Resources Agency (the "MCWRA"), and the California-America Water Company (the "CAW") to develop, finance, and construct a Regional Desalination Project (the "RDP"). The purpose of the RDP was to replace existing Monterey Peninsula water supplies that are substantially constrained by California regulatory decisions and to provide a new water supply for the approved redevelopment of the former Fort Ord area within Marina Coast Water District's Ord Community Service Area. Due to the nature of the project, the California Public Utilities Commission (the "CPUC") was considered the governmental oversight and approval agency.

On April 5, 2010, Ag Land Trust ("ALT") filed a Petition of Writ of Mandate and Complaint for Declaratory Relief against the District in the Monterey Superior Court. In February 2012, the Superior Court found that the District violated the California Environmental Quality Act ("CEQA") and ordered the District to set aside its approval of a land purchase agreement and its project agreements with MCWRA and CAW, and to prepare a new Environmental Impact Report. In March 2012, ALT dismissed its remaining declaratory relief causes of action, and in April 2012, judgment was entered in favor of ALT on the CEQA claims. The District timely appealed the judgment to the Sixth Appellate District Court of Appeal. In February 2013, the superior court entered an order granting ALT an award of attorneys' fees in the amount of \$1.285 million. The District timely appealed the attorneys' fees order to the Sixth Appellate District Court of Appeal in a separate appeal. On August 26, 2013, the Sixth Appellate District issued an opinion declaring the case to be moot, reversing the superior court's judgment in favor of ALT and ordering the superior court to dismiss the case. On October 4, 2013, ALT filed a petition for review in the California Supreme Court challenging the Sixth Appellate District's decision, and on October 22, 2013, the District filed an answer to the petition for review. On November 13, 2013, the California Supreme Court denied the petition for review. On November 18, 2013, the Sixth Appellate District issued the remittitur, rendering the reversal of the judgment against the District final. On March 7, 2014, the superior court entered its order dismissing the Petition for Writ of Mandate as Moot. On November 17, 2014, the Sixth Appellate District reversed the superior court's order awarding attorney's fees but remanded the matter to allow the superior

Note 11 - Commitments and Contingencies (continued)

court to determine whether ALT was entitled to an award of attorney's fees under a different legal theory. In the superior court, the District timely moved to disqualify the trial judge whose attorney's fees order had been reversed, but the trial judge denied the motion. On March 13, 2015, the District filed in the Sixth Appellate District a petition for a writ of mandate compelling the superior court to grant the disqualification motion. On June 18, 2015, the superior court stayed proceedings on remand from the attorney's fees appeal until resolution of the petition for a writ of mandate. On September 28, 2015, the Sixth Appellate District filed an order denying the petition for a writ of mandate. On October 8, 2015, the District filed in the California Supreme Court a petition for review of the Sixth Appellate District's order denying the petition for a writ of mandate, but that petition was also summarily denied. Thereafter, the issue of ALT's entitlement to attorney fees under a catalyst theory was litigated before the trial judge and on July 14, 2016, the court entered an order granting ALT's request for such fees and reinstated its earlier fee award. On July 29, 2016, the District filed a notice of appeal from that order. The appeal was orally argued on October 2, 2018, and the Court of Appeal rendered its decision in Case No. H043902 on October 15, 2018, reversing the Superior Court's award of attorney fees under the catalyst theory and determining the ALT was "not a successful party" in the litigation.

On September 18, 2012, CAW presented a claim to the District related to project costs pursuant to the California Government Claims Act, Government Code Section 810. On October 4, 2012, CAW filed an action against the District and MCWRA seeking a declaratory judgment, but no damages, concerning the validity of the RDP Agreements and the lawfulness of MCWRA's repudiation of the RDP Agreements. The District has filed a cross-complaint for declaratory relief, but no damages, against CAW and MCWRA. The trial court entered a judgment during April 2015 following trial finding that certain of the RDP Agreements, including the Water Purchase Agreement were subject to the Validating Acts, but still could be rendered invalid due to the application of the four-year statute of limitations which is concerned with contractual conflicts of interest violations. That Judgment was timely appealed by the District and the Court of Appeal affirmed the court's decision. The District filed a Petition for Review before the California Supreme Court which had not ruled on whether it would grant the Petition. A lawsuit seeking damages due to the failure of the Regional Desalinization Project has been filed by the District against CAW and MCWRA and those entities have brought suit seeking damages against the District on the same subject matter. On June 1, 2015, the Superior Court entered judgment and the District appealed to the First Appellate District Court of Appeal, Case No. A145604. On August 26, 2015, the Court of Appeal granted the District's motion for calendar preference and expedited treatment. After full briefing and oral argument, the Court of Appeal rendered its decision in Case No. A145604 on August 18, 2016, affirming the judgment of the Superior Court. The District petitioned to the California Supreme Court for review of the Court of Appeal decision, but on November 9, 2016, in Case No. S237534, the Supreme Court denied the petition for review. Separately, the District also appealed the Superior Court's post-judgment orders awarding costs and fees to Cal-Am and MCWRA as prevailing parties, First District Court of Appeal Case Nos. A146166 and A146405. Those appeals were fully briefed, and the Court of Appeal thereafter held

Note 11 - Commitments and Contingencies (continued)

oral argument on December 6, 2017. On December 15, 2017, the Court of appeal rendered its decision affirming the awards of costs and attorney fees. The District petitioned the Supreme Court for review of the Court of Appeal decision in Supreme Court Case No. S246648, but on February 28, 2018 its petition for review was denied by the Supreme Court. In June and July, 2018, the District paid in full the awards of costs and fees (including interest thereon) to Cal-Am in the amount of \$2,088,510 and to MCWRA in the amount of \$760,680. Cal-Am and MCWRA have each presented written breach of contract and tort claims for damages against the District, and the District has presented a breach of contract and tort claim for damages against MCWRA. The District has also made a written demand on its breach of contract and tort claims against Cal-Am. In San Francisco Superior Court Case No. CGC-15-546632, Cal-Am and MCWRA filed a complaint for damages against the District seeking recovery and damages related to the termination of the RDP. In San Francisco Superior Court Case No. CGC-15-547125, the District filed a complaint for damages against Cal-Am and MCWRA seeking recovery and damages related to the termination of the RDP. As the result of the Superior Court's demurrer rulings, the following causes of action remain pending: MCWD's cause of action against Cal-Am for promissory estoppel; Cal-Am and Monterey's tort causes of action against MCWD for negligence, negligent interference and intentional interference; and Cal-Am's contract or related causes of action against MCWD for breach, accounting, money lent and unjust enrichment. Additional dispositive motions remain to be filed and resolved, and trial is presently scheduled to begin March 25, 2019. The District is vigorously defending all claims and judgments against it, and is actively pursuing its position against all other parties.

Based on the latest information, the District is unable to estimate a potential range of loss, or the likelihood of the outcome of litigation regarding these matters. However, if final judgments are made against the District, the losses, individually and in the aggregate, could have a material effect to the financial statements. Further, results of the actions could have a material effect on the carrying value of the capital assets and liabilities presented in the Statement of Net Position.

The assets, liabilities and net position of the RDP are represented in the Statement of Net Position, Proprietary Funds in Supplementary Information as the Regional Project fund. A summary is as follows:

Total assets	\$22,619,608
Total liabilities	(20,166,349)
Total net position	\$ 2,453,259

Note 11 - Commitments and Contingencies (concluded)

Marina Coast Water District v. California State Lands Commission, et al.

MCWD originally filed this action in Santa Cruz County Superior Court on January 15, 2015. MCWD's Petition for Writ of Mandate and Complaint challenges the State Land Commission's approvals made subsequent to the Coastal Commission's original approval of the CDPs for the slant test well. MCWD alleges that the State Lands Commission violated CEQA by improperly relying on the same inadequate environmental review documents that the Coastal Commission used as the basis for its approval. After MCWD filed its Petition, the parties stipulated that this case would be briefed after the trial court issued its decision on the merits in MCWD v CCC I. Following the trial court's decision in MCWD v CCC I, the parties stipulated to stay this case until MCWD's appeal in MCWD v CCC I was decided. Following the appellate court decision in MCWD v CCC I, the case remained stayed while the parties discussed a settlement where each side would bear its own costs. The case was settled by the District in February 2018.

Marina Coast Water District v. California Public Utilities Commission

On April 23, 2012, Cal-Am filed a CPUC application, A.12-04-019, for authorization to construct a new water supply project other than the RDP. The District continues to participate in the processing of Cal-Am's new project application to protect the District's interests. The District filed comments on both the original draft environmental review and the recirculated and final environmental review documents. On August 22, 2018, the District participated in an oral argument of A. 12-04-019 before the CPUC. On September 20, 2018, the CPUC issued its decision, D.18-09-17, certifying the final environmental review and approving Cal-Am's proposed desalination project. On October 12, 2018, the District filed a petition for writ of review/mandate challenging D.18-09-17 in the California Supreme Court Case No. S251935 on the ground that it was rendered in violation of CEQA. The District also filed an application for rehearing with the CPUC on October 19, 2018 raising the same CEQA claim as well as other claims of legal error. The District intends to vigorously pursue the positions it has taken and to defend its interests with respect to Cal-Am's application A.12-04-019.

Bayview Community DE, LLC v. Marina Coast Water District

The Bayview mobile home park owner and a few of its residents have filed a breach of contract claim and challenged the District's water rates charged to the mobile home park, which were set in 2014 and 2018. Plaintiffs have not specified their alleged damages however, Plaintiffs state that their overdue water bills based on the disputed rates at issue approximate \$464,795. The District has been vigorously defending the case. The parties have been engaged in mediation discussions and are continuing to conduct settlement discussions.

Note 12 – Restatement of Net Position

The District implemented GASB Statement No. 75 during the year ended June 30, 2018. The beginning net position at July 1, 2017 was restated as follows:

Net position, as previously reported, at June 30, 2017 \$ 151,240,878

Change in Accounting Principle - GASB 75:

Net OPEB liability (1,010,999)

Net position, as restated, July 1, 2017 \$ 150,229,879



This page is intentionally left blank.

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)



This page is intentionally left blank.

MARINA COAST WATER DISTRICT Required Supplementary Information For the Year Ended June 30, 2018 and 2017

Defined Benefit Pension Plan

Schedule of The District's Proportionate Share of The Net Pension Liability – Last 10 Fiscal Years*

	FY 2017	FY 2016	FY 2015	FY 2014
Proportion of the net pension liability	0.02991%	0.02802%	0.02383%	0.03046%
Proportionate share of the net pension liability	\$ 2,965,935	\$ 2,424,531	\$ 1,635,836	\$ 1,895,347
Covered payroll	\$ 3,230,862	\$ 3,046,005	\$ 2,722,805	\$ 2,714,872
Proportionate share of the net pension liability as a percentage of its covered payroll	91.80%	79.60%	60.08%	69.81%
Plan fiduciary net position as a percentage of the total pension liability	79.94%	84.43%	88.48%	83.03%

^{*}Fiscal year 2014 was the 1st year of implementation, therefore only four years are shown.

<u>Schedule of Contributions – Last 10 Fiscal Years</u>**

	 FY 2018	 FY 2017	 FY 2016	FY 2015	 FY 2014
Actuarially Determined Contribution	\$ 257,161	\$ 242,478	\$ 216,963	\$ 227,120	\$ 228,140
Contributions in Relation to					
the Actuarially Determined Contribution	 (257,161)	(242,478)	(216,963)	(227,120)	(228,140)
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 3,444,211	\$ 3,230,862	\$ 3,046,005	\$ 2,722,805	\$ 2,714,872
Contributions as a Percentage of					
Covered Payroll	7.47%	7.51%	7.12%	8.34%	8.40%

^{**}Fiscal year 2014 was the 1st year of implementation, therefore only five years are shown.

MARINA COAST WATER DISTRICT Required Supplementary Information For the Year Ended June 30, 2018 and 2017

Other Post-Employment Benefits (OPEB) Plan

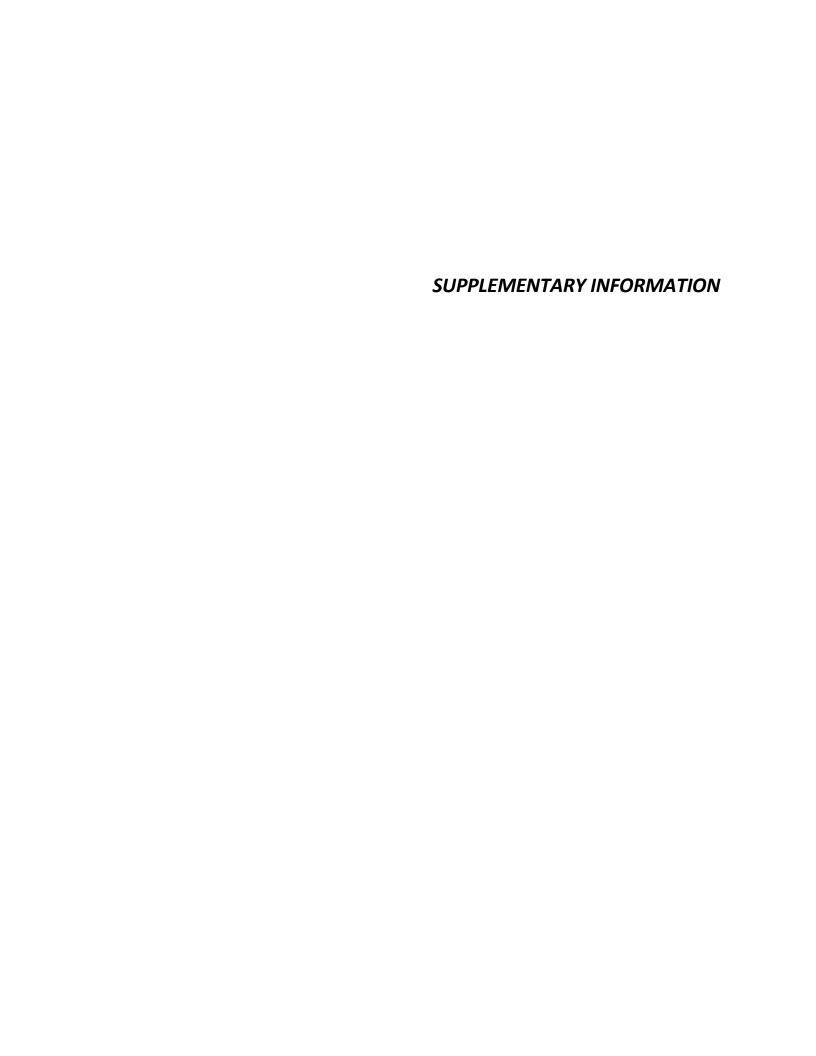
Schedule of Changes in the Total OPEB Liability and Related Ratios – Last 10 Fiscal Years*

Measurement Period		2017
Total OPEB Liability		
Service cost	\$	129,003
Interest		75,849
Changes in benefit terms		-
Differences between expected and actual experience		-
Changes of assumptions		-
Benefit payments, including refunds of employee contributions		(20,082)
Implicit rate subsidy fulfilled		(14,526)
Net change in total OPEB liability		170,244
Total OPEB liability - beginning	2	2,055,421
Total OPEB liability - ending	\$2	2,225,665
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability		0.00%
Covered-Employee Payroll	\$3	3,235,398
Total OPEB Liability as a Percentage of Covered-Employee Payroll		68.8%

^{*} Historical information is required only for measurement periods for which GASB 75 is applicable. Future years' information will be displayed up to 10 years as information becomes available.

Schedule of Funding Progress

Actuarial Valuation Date June 30,	Actuarial Accrued Liability (AAL) (a)	Actuarial Value of Assets (AVA) (b)	Unfunded Actuarial Accrued Liability (UAAL) (a) - (b)	Funded Ratio (b) / (a)	Annual Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(a) - (b)] / (c)
2010	\$858,168	\$0	(\$858,168)	0%	\$2,378,746	36%
2013	\$1,350,449	\$0	(\$1,350,449)	0%	\$2,593,249	52%
2016	\$2,440,888	\$0	(\$2,440,888)	0%	\$2,954,237	83%





This page is intentionally left blank.

MARINA COAST WATER DISTRICT Schedule of Net Position Proprietary Funds June 30, 2018

	Marina Water Fund	Marina Sewer Fund	Ord Water Fund	Ord Sewer Fund	New Water Fund	Regional Project	Interfund	Total
ASSETS								
Current assets:								
Cash and cash equivalents	\$ 2,611,067	\$ 1,760,362	\$ 847,026	\$ 1,443,057	· \$	· \$	\$ - \$	6,661,512
Accounts receivable, net	278,151	64,859	1,040,950	278,884	•	•	•	1,662,844
Interest receivable	11,147	088'9	13,796	4,295	•	•		36,118
Due from other funds	10,946,769	•	5,000,000	7,124,044	•	•	(23,070,813)	•
Other receivable	29,802	7,135	623,781	170,702	6,485,509	•	•	7,316,929
Inventories	40,786	2,268	86,953	4,535	•	•		134,542
Deposits	3,612	•	•	•	•	•		3,612
Prepaid items	13,927	3,708	34,502	16,965	'	1	, 	69,102
Total current assets	13,935,261	1,845,212	7,647,008	9,042,482	6,485,509	ı	(23,070,813)	15,884,659
Noncurrent assets:								
Restricted cash and investments	2,637,062	182,056	8,244,790	1,888,281	5,051	•	•	12,957,240
Capital assets, net	11,545,647	5,727,764	102,504,396	34,166,646	26,493,763	22,619,608	, 	203,057,824
Total noncurrent assets	14,182,709	5,909,820	110,749,186	36,054,927	26,498,814	22,619,608	1	216,015,064
TOTAL ASSETS	28,117,970	7,755,032	118,396,194	45,097,409	32,984,323	22,619,608	(23,070,813)	231,899,723
DEFERRED OUTFLOWS OF RESOURCES Deferred outflows related to pensions	311.110	84.755	631.763	150,711	,	1	,	1.178.339
Deferred outflows related to OPEB	10,902	3,052	23,547	6,105	'	1	 - 	43,606
TOTAL DEFERRED OUTFLOWS OF RESOURCES	322,012	87,807	655,310	156,816	1	1	'	1,221,945

continued

	Marina	Marina	Ord	Ord	New	Regional	Interfund	
	Water Fund	Sewer Fund	Water Fund	Sewer Fund	Water Fund	Project	Eliminations	Total
LIABILITIES								
Current liabilities:								
Accounts payable	164,857	9,319	406,626	111,835	9,229,720	219,580	•	10,141,937
Accrued expenses	72,893	•	12,363	8,510	16,636	•	•	110,402
Interest payable	31,020	11,787	91,706	28,435	24,774	•	•	187,722
Line of credit		•	•	•	6,562,695	•	•	6,562,695
Due to other funds		•	•	•	6,124,044	16,946,769	(23,070,813)	
Customer deposits payable	132,438	523	326,126	167,433	•	•	•	626,520
Current portion of long-term debt	350,418	126,105	954,139	291,168	220,800	•	•	1,942,630
Other current liability	9,198	-	•	•	-	•	-	9,198
Total current liabilities	760,824	147,734	1,790,960	607,381	22,178,669	17,166,349	(23,070,813)	19,581,104
Noncurrent liabilities								
Long-term debt	3.704.564	1.858.174	16.644.362	5.406.496	6.816.089	1	,	34.429.685
Total Open liability	556.416	155.796	1,201,860	311,593	1	1	•	2,225,665
Net pension liability	819.995	226.569	1,563,697	355.674	•	1	•	2,965,935
Other noncurrent liability	'		-		1	3,000,000		3,000,000
Total noncurrent liabilities	5,080,975	2,240,539	19,409,919	6,073,763	6,816,089	3,000,000	 	42,621,285
TOTAL LIABILITIES	5,841,799	2,388,273	21,200,879	6,681,144	28,994,758	20,166,349	(23,070,813)	62,202,389
DEFERRED INFLOWS OF RESOURCES								
Deferred inflows related to pensions	159,181	43,158	269,034	51,203	•	•		522,576
Deferred gains on refunding debt	63,269	34,741	363,446	142,751	60,338	1	-	664,545
TOTAL DEFERRED INFLOWS OF RESOURCES	222,450	77,899	632,480	193,954	60,338		ı	1,187,121
NET POSITION								

851,747 (3,130,502)

(20,166,349)

(8,909,665)

3,929,227

38,379,127

\$

97,218,145

ş

5,376,667

\$ 22,375,733

Unrestricted (Deficit)
TOTAL NET POSITION

22,619,608

12,833,841 5,051

28,382,469 1,769,037 119,244 8,108,377

84,790,272 7,818,916

3,736,865 113,916

7,542,365 2,398,573

Net investment in capital assets Restricted for capacity fees Restricted for debt service

425,874 4,183,083

68,140 1,457,746

238,489 12,196,306 169,732,158 concluded

159,905,420 12,105,493

MARINA COAST WATER DISTRICT Schedule of Revenues, Expenses, and Changes in Net Position Proprietary Funds For The Year Ended June 30, 2018

	Ž	Marina	_	Marina	Ord		Ord		New	Reg	Regional		
	Wate	Water Fund	Sei	Sewer Fund	Water Fund	١	Sewer Fund	>	Water Fund	Pro	Project		Total
OPERATING REVENUES:													
Water services	❖	3,856,211	Ŷ	1	\$ 6,988,445	٠	•	❖	•	\$	•	Ŷ	10,844,656
Wastewater services		1		1,240,827	1		2,587,333		1		•		3,828,160
Other services and fees		91,708		9,154	1,213,160		31,256		•				1,345,278
Total operating revenues		3,947,919		1,249,981	8,201,605		2,618,589		1		1		16,018,094
OPERATING EXPENSES:													
Administrative		1,074,743		252,077	2,884,011		902'369		1,107		•		4,907,644
Operations and maintenance		753,555		277,843	1,673,888		476,574		1		•		3,181,860
Laboratory		777,67		1	172,041		1		1		•		251,818
Conservation		109,710		•	191,445		1		1		•		301,155
Engineering		357,015		73,596	1,110,233		281,657		1		•		1,822,501
Depreciation		315,496		182,566	711,621		200,227		146,025		-		1,555,935
Total operating expenses		2,690,296		786,082	6,743,239		1,654,164		147,132		1		12,020,913
Operating income (loss)		1,257,623		463,899	1,458,366		964,425		(147,132)		'		3,997,181
NONOPERATING REVENUES (EXPENSES):													
Rental income		145,327		41,522	259,512		72,663		•		•		519,024
Interest earned		39,819		21,526	56,791		14,644		206		•		132,986
Interest expense		(179,016)		(82,347)	(704,938)		(225,477)		(319,162)		'		(1,510,940)
Total nonoperating revenue (expenses)		6,130		(19,299)	(388,635)		(138,170)		(318,956)		1		(858,930)
Income (loss) before capital contributions		1,263,753		444,600	1,069,731		826,255		(466,088)		ı		3,138,251
CAPITAL CONTRIBUTIONS:													
Grants		٠		,	1		1		10,676,158		•		10,676,158
Capacity and connection fees		14,505		8,166	3,597,753		1,531,424		1		•		5,151,848
Developer contributions		35,567		14,215	369,551		116,689		1		-		536,022
Total capital contributions		50,072		22,381	3,967,304		1,648,113		10,676,158		1		16,364,028
Increase in net position		1,313,825		466,981	5,037,035		2,474,368		10,210,070		1		19,502,279
Net position, beginning of year	2	21,268,558		4,954,216	92,793,607		36,052,081		(6,280,843)	(4	2,453,259		151,240,878
Restatement due to Implementation of GASB 75 (Note 12)		(206,650)		ı اص			(147,322)		1		'		(1,010,999)
Net position, end of year	\$ 2	22,375,733	ئ	5,376,667	\$ 97,218,145	φ.	38,379,127	ş	3,929,227	\$	2,453,259	ş	169,732,158

MARINA COAST WATER DISTRICT Schedule of Cash Flows Proprietary Funds For The Year Ended June 30, 2018

	Wa	Marina Water Fund	Marina Sewer Fund	N N	Ord Water Fund	Ord Sewer Fund	Pu	New Water Fund	Regional Project		Total
OPERATING ACTIVITIES: Receipts from customers and users Payments to employees Payments to suppliers Net cash provided by operating activities	φ	3,895,487 (1,312,203) (911,566) 1,671,718	\$ 1,231,015 (446,692) (144,175) 640,148	5 \$ (2.2) \$ (2.5) \$ (2.5) \$ (3.5)	7,875,795 (2,674,274) (3,384,270) 1,817,251	\$ 2,66 (75 (1,08 82	2,662,542 \$ (750,252)	1 1 1 1	v.	φ	15,664,839 (5,183,421) (5,528,601) 4,952,817
NONCAPITAL FINANCING ACTIVITIES: Due from other funds Due to other funds Net cash provided by (used in) noncapital financing		(946,768)			(5,000,000)	22	226,747	1,019,480 1,019,480	- 4,700,541 4,700,541		(5,720,021) 5,720,021
CAPITAL AND RELATED FINANCING ACTIVITIES: Acquisition and construction of capital assets Proceeds from grants Developer contributions, capacity and connection receipts Proceeds from line of credit Principal paid on capital debt Interest paid on capital debt Net cash provided by (used in) capital and related financing activities		(67,356) 50,072 (325,698) (194,780) (537,762)	(299,817) - 22,381 - (118,299) (90,617) (486,352)	7) 1 (2)	(252,917) - 3,967,304 - (895,148) (779,833) 2,039,406	(21 1,64 (27 (24	(214,765) - 1,648,113 - (274,449) (249,996) 908,903	(17,688,550) 10,676,158 - 6,562,695 (213,900) (351,051) (1,014,648)	(4,700,541) - - - - - (4,700,541)	(a	(23,223,946) 10,676,158 5,687,870 6,562,695 (1,827,494) (1,666,277) (3,790,994)
INVESTING ACTIVITIES: Rental income Investment earnings Net cash provided by investing activities		145,327 34,018 179,345	41,522 17,946 59,468	8 2	259,512 49,611 309,123	7 1 8	72,663 12,409 85,072	206			519,024 114,190 633,214
Net increase (decrease) in cash and cash equivalents Cash and cash equivalents, beginning of year		366,533	213,264	4 4	(834,220)	2,04	2,044,422	5,038			1,795,037
Cash and cash equivalents, end of year	ν	5,248,129	\$ 1,942,418	ν 8	9,091,816	\$ 3,33	3,331,338 \$	5,051	v.	.∥ .∥	19,618,752 continued

	\$	Marina Water Fund	Se	Marina Sewer Fund	×	Ord Water Fund	Se	Ord Sewer Fund	Wa	New Water Fund	Regional Project		Total	1
RECONCILIATION TO STATEMENT OF NET POSITION:	v	2 611 067	v	1 760 362	Ð	847.026	v	1 443 057	v	,	v	•	6 661 512	,
Restricted cash and investments) -	2,637,062	Դ	182,056)	8.244.790	Դ	1.888.281	.	5.051	Դ	ጉ ' '	12,957.240	40
Total cash and cash equivalents	\$	5,248,129	\$	1,942,418	\$	9,091,816	Ş	3,331,338	\$	5,051	\$	\$ -	19,618,752	.52
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH DROWINED BY OPERATING														
ACTIVITIES:														
Operating income (loss)	↔	1,257,623	٠	463,899	Ŷ	1,458,366	s	964,425	Ŷ	(147, 132)	\$	·	3,997,181	.81
Adjustments to reconcile operating income (loss) to														
net cash provided by operating activities:														
Depreciation		315,496		182,566		711,621		200,227		146,025			1,555,935	35
(Increase) decrease in accounts receivable		(52,432)		(18,966)		(325,810)		43,953		1			(353,255)	55)
(Increase) decrease in inventories		856		403		1,061		424		1			2,744	44
(Increase) decrease in prepaid items		5,783		1,508		11,290		(5,238)		1			13,343	43
(Increase) decrease in deferred outflow of resources		(142,862)		(40,002)		(308,584)		(80,003)		1			(571,451)	.51)
Increase (decrease) in customer deposits		28,178		523		(129,395)		(432,285)		1		1	(532,979)	(62
Increase (decrease) in accounts payable		59,427		(200)		38,027		22,025		(12,353)		1	106,366	99
Increase (decrease) in accrued expenses		17,889		İ		(27,697)		8,510		16,636		1	15,338	38
Increase (decrease) in other current liabilities		1		İ		İ		1		1		1		
Increase (decrease) in compensated absences		7,602		3,107		24,128		9,783		1			44,620	20
Increase (decrease) in pension liability		135,351		37,899		292,358		75,796		1		1	541,404	04
Increase (decrease) in total OPEB liability		31,660		8,865		68,385		17,729		,		,	126,639	39
Increase (decrease) in deferred inflows		7,147		1,106		3,501		(1,646)		(3,176)		-	6,932	32
Total adjustments		414,095		176,249		358,885		(140,725)		147,132		 •	955,636	36
Net cash provided by operating activities	ω	1,671,718	φ	640,148	φ	1,817,251	ş	823,700	δ	1	Ф	- -	4,952,817	117
NON-CASH ITEM:														
Amortization of bond premium	\$	14,071	٠	7,721	❖	71,087	❖	23,395	↔	31,355	ب	·	147,629	53

concluded



This page is intentionally left blank.

STATISTICAL SECTION

(UNAUDITED)



This page is intentionally left blank.

MARINA COAST WATER DISTRICT Statistical Section

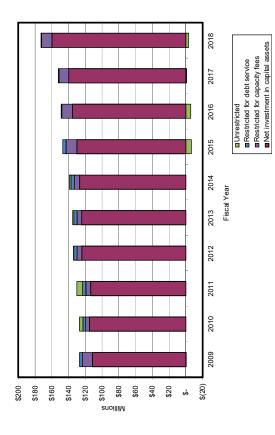
This part of the District's Comprehensive Annual Financial Report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and supplementary information says about the District's overall financial health.

Contents

Financial Trends These schedules contain information to help the reader understand how the District's financial performance and well-being have changed over time.	64-66
Revenue Capacity These schedules contain information to help the reader assess the District's most significant revenue sources, water sales and wastewater collection.	67-70
Debt Capacity These schedules present information to help the reader assess the affordability of the District's current levels of outstanding debt and the District's ability to issue additional debt in the future.	71-72
Demographic Information This schedule offers demographic indicators to help the reader understand the environment within which the District's financial activities take place.	73-74
Operating Information These schedules contain service and infrastructure data to help the reader understand how the information in the District's financial report relates to the service the District provides.	75-76

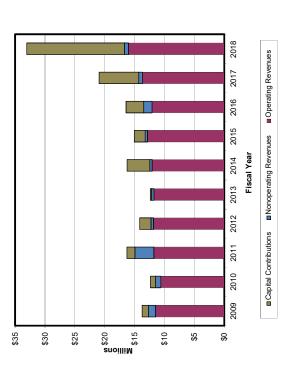
MARINA COAST WATER DISTRICT Changes in Net Position and Net Position by Component Last Ten Fiscal Years Schedule 1

Changes in net position: Operating expenses Operating income (loss) Non-operating revenues (expenses) Net income before capital contributions	\$ 11,485,437 (9,382,017) 2,103,420									
Operating income (loss) Non-operating revenues (expenses) Net income before capital contributions	2,103,420	\$ 10,614,482 (10,261,792)	\$ 11,774,989 (10,895,356)	\$ 11,858,010 (9,332,976)	\$ 11,768,732 (9,379,761)	\$ 12,086,128 (9,407,367)	\$ 12,862,362 (9,458,477)	\$ 12,100,265 (9,948,528)	\$ 13,685,334 (11,226,580)	\$ 16,018,094 (12,020,913)
Non-operating revenues (expenses) Net income before capital contributions		352,690	879,633	2,525,034	2,388,971	2,678,761	3,403,885	2,151,737	2,458,754	3,997,181
Net income before capital contributions	(313,310)	(833,764)	1,120,230	(1,886,000)	(1,793,893)	(1,689,013)	(1,621,996)	(2,313,611)	(881,262)	(858,930)
	1,790,110	(481,074)	1,999,863	639,034	595,078	989,748	1,781,889	(161,874)	1,577,492	3,138,251
Capital contributions	1,062,104	862,020	1,327,733	1,895,449	222,268	3,800,217	1,808,824	2,948,012	6,630,732	16,364,028
Changes in net position	2,852,214	380,946	3,327,596	2,534,483	817,346	4,789,965	3,590,713	2,786,138	8,208,224	19,502,279
Net position, beginning of year prior neriod adiustments	123,497,815	126,350,029	126,730,975	130,058,571	134,213,783	135,031,129	138,994,781	140,246,516	143,032,654	151,240,878
. "	\$ 126,350,029	\$ 126,730,975	\$ 130,058,571	\$ 134,213,783	\$ 135,031,129	\$ 138,994,781	\$ 140,246,516	\$ 143,032,654	\$ 151,240,878	\$ 169,732,158
Net position by component: Net investment in capital assets Restricted for capacity fees Restricted for debt service Unrestricted	\$ 111,548,505 12,126,828 3,084,250 (409,554)	\$ 115,269,154 4,367,583 3,084,250 4,009,988	\$ 113,545,277 5,727,249 3,933,757 6,852,288	\$ 124,124,544 5,752,842 3,933,752 402,645	\$ 124,274,008 5,516,166 3,933,549 1,307,406	\$ 126,769,451 6,344,936 3,933,764 1,946,630	\$ 130,072,044 12,927,953 3,933,765 (6,687,246)	\$ 135,455,049 12,521,538 849,786 (5,793,719)	\$ 139,827,693 11,531,344 850,404 (968,563)	\$ 159,905,420 12,105,493 851,747 (3,130,502)
Total net position \$ 1	\$ 126,350,029	\$ 126,730,975	\$ 130,058,571	\$ 134,213,783	\$ 135,031,129	\$ 138,994,781	\$ 140,246,516	\$ 143,032,654	\$ 151,240,878	\$ 169,732,158



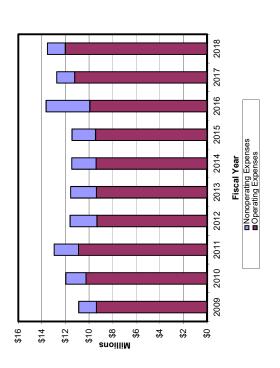
MARINA COAST WATER DISTRICT Revenues by Source Last Ten Fiscal Years Schedule 2

	5009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Operating revenues: Water sales	\$ 7,344,555	\$ 7,501,854	\$ 8,750,650	\$ 9,051,906	\$ 8,839,268	\$ 9,106,401	\$ 9,581,388	\$ 8,620,556	\$ 9,486,324	\$ 10,844,656
Wastewater services	1,965,102	2,161,443	2,354,013	2,453,627	2,513,613	2,507,048	2,800,880	3,116,103	3,450,138	3,828,160
Other services and fees	2,175,780	951,185	670,326	352,477	415,851	472,679	480,094	363,606	748,872	1,345,278
Total operating revenues	11,485,437	10,614,482	11,774,989	11,858,010	11,768,732	12,086,128	12,862,362	12,100,265	13,685,334	16,018,094
Nonoperating revenues: Interest earned	1,185,594	613,936	273,267	233,276	208,531	197,277	192,909	618,904	64,012	132,986
Rental income			2,	164,485	179,438	179,438	179,438	764,986	566,651	519,024
Total nonoperating revenues	1,185,594	887,614	3,187,295	397,761	387,969	376,715	372,347	1,383,890	630,663	652,010
Capital contributions: Grant revenue	47,568	33,243	783,326	1,185,312	11,680	•	,	•	555,104	10,676,158
Capacity and connection fees Developer contributions	1,014,536	828,777	544,407	640,191 69,946	210,588	3,197,978 602,239	1,129,206 679,618	2,270,405 677,607	5,503,637 571,991	5,151,848 536,022
Total capital contributions	1,062,104	862,020	1,327,733	1,895,449	222,268	3,800,217	1,808,824	2,948,012	6,630,732	16,364,028
Total revenues	\$ 13,733,135	\$ 12,364,116	\$ 16,290,017	\$ 14,151,220	\$ 12,378,969	\$ 16,263,060	\$ 15,043,533	\$ 16,432,167	\$ 20,946,729	\$ 33,034,132



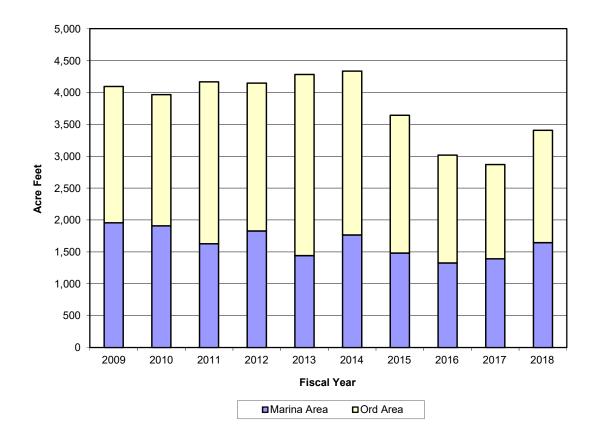
MARINA COAST WATER DISTRICT Expenses by Function Last Ten Fiscal Years Schedule 3

	2009		2010		2011	20	2012	70	2013		2014		2015		2016	20	2017	2	2018
Operating expenses:		•																	
Administrative	\$ 2,129,232	s	2,129,012	s	2,682,047	5 2,	,181,146 \$	\$ 2,	,919,025	s	2,868,768	s	2,979,535	s	3,118,186 \$	\$ 4,	1,220,398	\$	1,907,644
Operations and maintenance	2,216,202		2,709,949		3,001,131	2,'	,722,037	2,	760,076,		3,154,941	,	3,036,913		3,140,765	χ,	3,173,240	m	3,181,860
Laboratory	312,140		325,299		324,244	. •	216,448		225,119		263,015		245,496		238,256	. 4	256,607		251,818
Conservation	264,490		297,283		318,589	.,	214,378		219,964		241,849		319,617		376,383		304,338		301,155
Engineering	1,024,390		908,265		869,790	5,	969,643		983,105		1,087,355		1,280,311		1,494,965	1,6	.,656,803	1	1,822,501
Depreciation	3,435,564		3,891,984		3,699,555	3,(3,029,324	2,	2,062,451		1,791,439		1,596,605		1,579,973	1, t	1,615,194	1	1,555,935
Total operating expenses	9,382,017		10,261,792		10,895,356	; ' 6	9,332,976	6	9,379,761		9,407,367	J,	9,458,477		9,948,528	11,	11,226,580	12	12,020,913
Nonoperating expenses Interest expense	1,468,784		1,691,257		2,027,898	2,5	2,233,550	2,	2,132,688		2,065,728	,,	1,994,343		2,954,075	1,5	1,511,925	H	1,510,940
Investment loss Bond issuance costs	30,120		30,121		39,167		50,211		49,174		' '				474,892 268,534		•		· ·
Total nonoperating expenses	1,498,904		1,721,378		2,067,065	2,:	2,283,761	2,	2,181,862		2,065,728		1,994,343		3,697,501	1,5	1,511,925	Н	1,510,940
Total expenses	\$ 10,880,921 \$ 11,983,170	~	11,983,170	₩.	12,962,421	\$ 11,6	11,616,737	\$ 11,	\$ 11,561,623	\$ 1	\$ 11,473,095	\$ 1:	11,452,820	\$ 1	13,646,029	\$ 12,7	12,738,505	\$ 13	13,531,853



MARINA COAST WATER DISTRICT Water Production by Service Area Last Ten Fiscal Years Schedule 4

			Water
Fiscal	Marina	Ord	Production
Year	Area	Area	(acre feet)
2009	1,957	2,137	4,094
2010	1,908	2,058	3,966
2011	1,626	2,540	4,167
2012	1,827	2,318	4,145
2013	1,441	2,841	4,282
2014	1,764	2,570	4,334
2015	1,483	2,159	3,642
2016	1,327	1,691	3,018
2017	1,392	1,476	2,868
2018	1,644	1,763	3,407



Note: See Schedule 2 "Operating Revenue by Source" for information regarding water revenues. Source: Marina Coast Water District's Finance Department

MARINA COAST WATER DISTRICT Rates, Fees & Charges Last Ten Fiscal Years Schedule 5

					Marina :	Service Area W	ater Consumption	on Rates (hcf)						
						Fis	scal Year							
Description	2018	2018	2017	2017	2016	2016	2015	2015	2014	2013	2012	2011	2010	2009
	1/1/2018	7/1/2017	1/1/2017	7/1/2016	1/1/2016	7/1/2015	1/1/2015	7/1/2014						
0-8 hcf	\$ 2.78	\$ 2.70	\$ 2.70	\$ 2.62	\$ 2.62	\$ 2.55	\$ 2.55	\$ 2.47	\$ 2.29	\$ 2.29	\$ 2.18	\$ 2.08	\$ 1.93	\$ 1.79
9-16 hcf	3.19	3.10	3.10	3.01	3.01	2.92	2.92	2.83	2.79	2.79	2.66	2.53	2.35	2.18
16+ hcf	5.63	5.47	5.47	5.31	5.31	5.15	5.15	5.00	5.09	5.09	4.85	4.62	4.29	3.98
0-12 hcf 13+ hcf														
					Marina Servic		& Sewer Service	Charges (mont	hly)					
Meter Size	2018	2018	2017	2017	2016	Fis 2016	scal Year 2015	2015	2014	2013	2012	2011	2010	2009
ivieter size	1/1/2018	7/1/2017	1/1/2017	7/1/2016	1/1/2016	7/1/2015	1/1/2015	7/1/2014		2013	2012		2010	2009
5/8" - 3/4"	\$ 22.36	\$ 21.71	\$ 21.71	\$ 21.07	\$ 21.07	\$ 20.46	\$ 20.46	\$ 19.87	\$ 18.85	\$ 18.85	\$ 17.95	\$ 17.11	\$ 15.87	\$ 14.72
5/8 - 5/4 1"				34.00							,			
	36.07	35.02	35.02		34.00	33.01	33.01	32.05	47.09	47.09	44.85	42.75	39.66	36.79
1 1/2"	58.94	57.22	57.22	55.55	55.55	53.94	53.94	52.36	94.19	94.19	89.70	85.51	79.32	73.58
2"	86.36	83.85	83.85	81.41	81.41	79.04	79.04	76.73	150.68	150.68	143.50	136.80	126.90	117.72
3"	150.41	146.03	146.03	141.78	141.78	137.65	137.65	133.64	282.52	282.52	269.07	256.50	237.94	220.73
4"	241.82	234.77	234.77	227.93	227.93	221.30	221.30	214.85	470.87	470.87	448.45	427.50	396.57	367.88
6"	470.42	456.71	456.71	443.41	443.41	430.50	430.50	417.96	941.75	941.75	896.90	855.00	793.14	735.75
8"	927.88	900.86	900.86	874.62	874.62	849.14	849.14	824.41	1,883.49	1,883.49	1,793.80	1,710.01	1,586.28	1,471.50
Sewer (EDU)	14.78	13.44	13.44	12.22	12.22	11.11	11.11	10.10	9.15	9.15	8.71	8.30	7.70	7.14
					Ord Se	rvice Area Wat	er Consumption	Rates (hcf)						
						Fis	scal Year							
Description	2018	2018	2017	2017	2016	2016	2015	2015	2014	2013	2012	2011	2010	2009
	1/1/2018	7/1/2017	1/1/2017	7/1/2016	1/1/2016	7/1/2015	1/1/2015	7/1/2014						
0-8 hcf	\$ 3.68	\$ 3.40	\$ 3.40	\$ 2.97	\$ 2.97	\$ 2.60	\$ 2.60	\$ 2.22	\$ 2.33	\$ 2.33	\$ 2.33	\$ 2.22	\$ 2.06	\$ 1.87
9-16 hcf	5.65	5.22	5.22	4.56	4.56	3.98	3.98	3.40	3.27	3.27	3.27	3.12	2.89	2.63
16+ hcf	7.62	7.03	7.03	6.14	6.14	5.37	5.37	4.59	4.22	4.22	4.22	4.02	3.73	3.39
0-12 hcf														
13+ hcf														
Flat Rate	153.99	143.94	143.94	127.29	127.29	112.65	112.65	98.36	84.34	84.34	84.34	80.40	74.58	67.76
CS1 - Water	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
CCC ² - Water														
					Ord Service		Sewer Service Cl	narges (monthl	y)					
Description	2018	2018	2017	2017	2016	Fis 2016	scal Year 2015	2015	2014	2013	2012	2011	2010	2009
Description	1/1/2018	7/1/2017	1/1/2017	7/1/2016	1/1/2016	7/1/2015	1/1/2015	7/1/2014	2014	2013	2012		2010	
5/8" - 3/4"	\$ 38.79	\$ 37.55	\$ 37.55	\$ 34.37	\$ 34.37	\$ 31.48	\$ 31.48	\$ 28.96	\$ 17.11	\$ 17.11	\$ 17.11	\$ 16.31	\$ 15.13	\$ 13.75
1"	60.51	58.57	58.57	53.62	53.62	49.11	49.11	45.18	42.76	42.76	42.76	40.76	37.81	34.38
1 1/2"	96.71	93.62	93.62	85.71	85.71	78.49	78.49	72.21	85.49	85.49	85.49	81.50	75.60	68.73
2"	140.14	135.66	135.66	124.20	124.20	113.74	113.74	104.64	136.78	136.78	136.78	130.39	120.96	109.96
3"	241.57	233.85	233.85	214.09	214.09	196.05	196.05	180.37	256.47	256.47	256.47	244.49	226.80	206.18
4"	386.31	373.96	373.96	342.36	342.36	313.52	313.52	288.45	427.45	427.45	427.45	407.48	378.00	343.63
6"	748.31	724.39	724.39	663.18	663.18	607.31	607.31	558.75	854.89	854.89	854.89	814.96	755.99	687.27
8"														
0	1,472.72	1,425.66	1,425.66	1,305.19	1,305.19	1,195.24	1,195.24	1,099.66	1,709.79	1,709.79	1,709.79	1,629.93	1,511.99	1,374.53

27.55

5.00

27.55

5.00

26.49

5.00

25.56

5.00

25.56

5.00

25.56

5.00

24.36

5.00

22.60

5.00

20.97

5.00

32.18

5.00

Sewer (EDU) CS¹ - Sewer

CCC² - Sewer

Note: (1) CS = Monthly Capital Surcharge for new EDU's. (2) CCC = Capital Component Charge (per hcf) in lieu of Capacity Charge Source: Marina Coast Water District's Finance Department

29.80

5.00

28.65

5.00

28.65

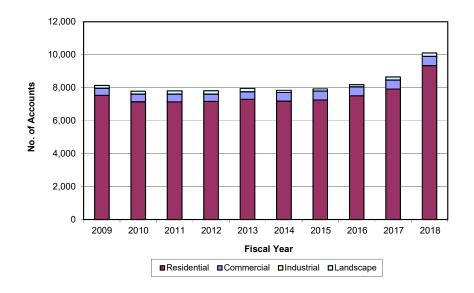
5.00

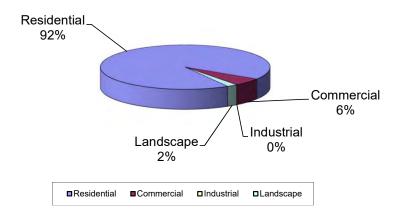
29.80

5.00

MARINA COAST WATER DISTRICT Water Accounts by Type of Customer Last Ten Fiscal Years Schedule 6

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Water customer accounts										
Residential	7,536	7,152	7,142	7,162	7,295	7,184	7,255	7,509	7,917	9,340
Commercial	438	458	467	448	461	527	542	551	547	560
Industrial	3	3	3	3	3	3	3	3	3	4
Landscape	162	174	197	203	203	125	128	121	185	204
Total water accounts	8,139	7,787	7,809	7,816	7,962	7,839	7,928	8,184	8,652	10,108





Source: Marina Coast Water District's Finance Department

MARINA COAST WATER DISTRICT
Principal Water Users
Fiscal Years Ended June 30, 2009 and June 30, 2018
Schedule 7

	2009			2018		
Customer		Water Usage (acre feet)	Percentage of Water Sold	Customer	Water Usage (acre feet)	Percentage of Water Sold
Monterey Bay Military Housing		539	14.20%	Monterey Bay Military Housing	248	7.34%
CSU Monterey Bay		416	10.96%	University Corporation at Monterey Bay	196	2.80%
Bay View Mobile Home Park		80	2.11%	California State Univ Mtry Bay	135	4.00%
Seaside Highlands H.O. Association		92	2.00%	Bay View Mobile Home Park	92	1.92%
Sun Bay Apartments		59	1.55%	Sun Bay Apartments	62	1.83%
United States Army		41	1.08%	MPUSD -Dual Language Academy of Monterey Peninsula	26	1.66%
MPUSD - Seaside High School		39	1.03%	Monterey Bay Military Housing	26	1.66%
MPUSD - Thomas Hayes Elementary		33	0.87%	Seaside Highlands H.O. Association	52	1.54%
Cypress Marina Heights		33	0.87%	Century Communities	43	1.27%
Clark Realty Builders		29	0.76%	LV44 Ltd Partnership	40	1.18%
Total Principal Water Users		1,345	35.42%	Total Principal Water Users	953	28.20%
Total All Users		3,797	100.00%	Total All Users ==	3,379	100.00%

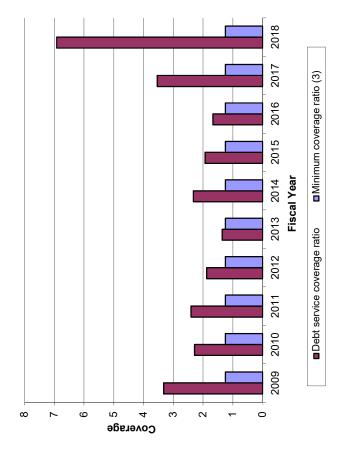
Source: Marina Coast Water District's Finance Department

MARINA COAST WATER DISTRICT
Ratios of Outstanding Debt by Type
Last Ten Fiscal Years
Schedule 8

Total Debt	per Account	5,197	6,275	6,175	5,901	5,579	5,448	5,164	4,853	4,381	3,554
Total	Accounts	\$ 8,139	7,787	608'2	7,816	7,962	7,839	7,928	8,184	8,652	10,108
	Debt	\$ 42,300,476	48,865,921	48,220,915	46,124,894	44,422,533	42,703,651	40,940,994	39,714,034	37,900,285	35,925,164
Capital	Leases	\$ 110,356	166,020	98,039	26,407	ı		ı			1
Bonds	Payable	\$ 41,597,591	40,736,238	47,631,905	46,048,967	44,401,309	42,703,651	40,940,994	36,938,034	35,100,405	33,202,777
Notes	Payable	۸,	•	•	•	1	•	1	•	•	1
Loans	Payable	\$ 592,529	7,963,663	490,971	49,520	21,224		•	2,776,000	2,799,880	2,722,387
Fiscal	Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018

MARINA COAST WATER DISTRICT **Debt Service Coverage** Last Ten Fiscal Years Schedule 9

2018	\$ 33,034,132 (10,464,978) \$ 22,569,154	1,750,000 1,510,940 3,260,940	6.92 1.25
2017	\$ 20,946,729 \$ (9,611,386) \$ (5,11,335,343 \$)	\$ 1,690,000 \$ 1,511,925 \$ \$ 3,201,925 \$	3.54
2016	\$ 16,432,167 (8,368,555) \$ 8,063,612	 	1.67
2015	\$ 15,043,533 (7,861,872) \$ 7,181,661	\$ 1,715,000 1,994,343 \$ 3,709,343	1.94
2014	\$ 16,263,060 (7,615,928) \$ 8,647,132	\$ 1,650,000 2,065,728 \$ 3,715,728	2.33
2013	\$ 12,378,969 (7,317,310) \$ 5,061,659	\$ 1,600,000 2,132,688 \$ 3,732,688	1.36
2012	\$ 14,151,220 (6,303,652) \$ 7,847,568	\$ 1,948,155 2,233,550 \$ 4,181,705	1.88
2011	\$ 16,290,017 (7,195,801) \$ 9,094,216	\$ 1,757,615 2,027,898 \$ 3,785,513	2.40
2010	\$ 12,400,469 (6,369,808) \$ 6,030,661	\$ 911,764 \$ 1,757,615 1,727,610 2,027,898 \$ 2,639,374 \$ 3,785,513	2.28
2009	\$ 13,721,920 (5,946,453) \$ 7,775,467		3.32
	Debt service coverage Gross revenues (1) Operating expenses (2) Net available revenues	Debt service Principal Interest	Debt service coverage ratio Minimum coverage ratio (3)



Notes:

- (1) Gross revenues includes all operating revenue, interest income, other nonoperating revenue and connection fees.
 - (2) Operating expenses exclude depreciation and amortization. (3) Minimum coverage ratio requirement per debt covenants.

MARINA COAST WATER DISTRICT Demographic and Economic Statistics - Monterey County Last Ten Years Schedule 10

Calendar Year Ended December 31	Population (1)	 Personal Income (2)	Per Capita Income (3)	Median Age (4)	Unemployment Rate (5)
2008	405,660	\$ 17,205,000	\$ 42,144	32	8.4%
2009	410,370	17,381,644	42,356	32	11.8%
2010	415,057	17,574,000	42,176	33	12.8%
2011	421,898	17,355,940	41,138	33	12.4%
2012	426,762	18,365,298	43,034	33	11.4%
2013	428,826	19,233,171	44,851	33	10.1%
2014	431,344	19,889,054	46,109	34	9.1%
2015	433,898	21,623,627	49,836	34	8.1%
2016	435,232	22,827,059	52,448	34	7.6%
2017	**	**	**	**	**

Source: Monterey County CAFR Report (Fiscal Year Ended June 30, 2017)

^{**} Data not available at time of print.

MARINA COAST WATER DISTRICT Employment by Industry for Monterey County - by Annual Average Prior Year and Ten Years Ago Schedule 11

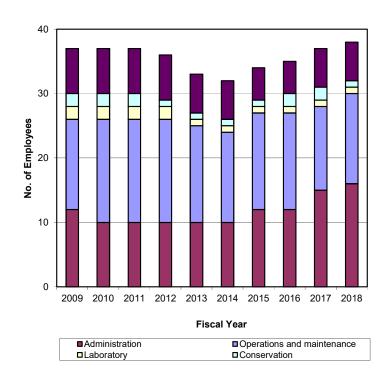
2017 2008

Government 33,000 2 17.24% Government 32,2 Leisure and Hospitality 24,500 3 12.80% Leisure and Hospitality 21,4 Educational and Health Services 19,600 4 10.24% Retail Trade 16,70 Retail Trade 16,400 5 8.57% Educational and Health Services 15,70 Professional and Business Services 13,200 6 6.90% Professional and Business Services 11,60 Natural Resources, Mining and Construction 6,200 7 3.24% Natural Resources, Mining and Construction 6,30 Wholesale Trade 5,700 8 2.98% Manufacturing 6,11	ployees I		Percentage of Total City
Agriculture 52,500 1 27.43% Agriculture 43,3 Government 33,000 2 17.24% Government 32,2 Leisure and Hospitality 24,500 3 12.80% Leisure and Hospitality 21,4 Educational and Health Services 19,600 4 10.24% Retail Trade 16,70 Retail Trade 16,400 5 8.57% Educational and Health Services 15,70 Professional and Business Services 13,200 6 6.90% Professional and Business Services 11,60 Natural Resources, Mining and Construction 6,200 7 3.24% Natural Resources, Mining and Construction 6,30 Wholesale Trade 5,700 8 2.98% Manufacturing 6,11	ployees I		Employment
Government 33,000 2 17.24% Government 32,2 Leisure and Hospitality 24,500 3 12.80% Leisure and Hospitality 21,4 Educational and Health Services 19,600 4 10.24% Retail Trade 16,70 Retail Trade 16,400 5 8.57% Educational and Health Services 15,70 Professional and Business Services 13,200 6 6.90% Professional and Business Services 11,60 Natural Resources, Mining and Construction 6,200 7 3.24% Natural Resources, Mining and Construction 6,30 Wholesale Trade 5,700 8 2.98% Manufacturing 6,11		Rank	Listed
Leisure and Hospitality 24,500 3 12.80% Leisure and Hospitality 21,4 Educational and Health Services 19,600 4 10.24% Retail Trade 16,70 Retail Trade 16,400 5 8.57% Educational and Health Services 15,70 Professional and Business Services 13,200 6 6.90% Professional and Business Services 11,6 Natural Resources, Mining and Construction 6,200 7 3.24% Natural Resources, Mining and Construction 6,30 Wholesale Trade 5,700 8 2.98% Manufacturing 6,10	43,300	1	24.87%
Educational and Health Services 19,600 4 10.24% Retail Trade 16,70 Retail Trade 16,400 5 8.57% Educational and Health Services 15,70 Professional and Business Services 13,200 6 6.90% Professional and Business Services 11,60 Natural Resources, Mining and Construction 6,200 7 3.24% Natural Resources, Mining and Construction 6,30 Wholesale Trade 5,700 8 2.98% Manufacturing 6,10	32,200	2	18.50%
Retail Trade16,40058.57%Educational and Health Services15,70Professional and Business Services13,20066.90%Professional and Business Services11,60Natural Resources, Mining and Construction6,20073.24%Natural Resources, Mining and Construction6,30Wholesale Trade5,70082.98%Manufacturing6,10	21,400	3	12.29%
Professional and Business Services 13,200 6 6.90% Professional and Business Services 11,60 Natural Resources, Mining and Construction 6,200 7 3.24% Natural Resources, Mining and Construction 6,30 Wholesale Trade 5,700 8 2.98% Manufacturing 6,10 Natural Resources, Mining and Construction 6,30 Natural Resources, Mining	16,700	4	9.59%
Natural Resources, Mining and Construction 6,200 7 3.24% Natural Resources, Mining and Construction 6,300 Wholesale Trade 5,700 8 2.98% Manufacturing 6,300	15,700	5	9.02%
Wholesale Trade 5,700 8 2.98% Manufacturing 6,10	11,600	6	6.66%
,,	6,300	7	3.62%
	6,100	8	3.50%
Manufacturing 5,600 9 2.93% Financial Activities 5,50	5,500	9	3.16%
Other Services 5,200 10 2.72% Wholesale Trade 5,1	5,100	10	2.93%
Financial Activities 4,300 11 2.25% Other Services 4,6	4,600	11	2.64%
Transportation, Warehousing and Utilities 4,100 12 2.14% Transportation, Warehousing and Utilities 3,6	3,600	12	2.07%
Information 1,100 13 0.57% Information 2,0	2,000	13	1.15%
Total 191,400 100.00% Total 174,1	174,100		100.00%

Source: State of California Employment Development Department

MARINA COAST WATER DISTRICT Personnel Trends by Department Last Ten Fiscal Years Schedule 12

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Employees by department										
Administration	12	10	10	10	10	10	12	12	15	16
Operations and maintenance	14	16	16	16	15	14	15	15	13	14
Laboratory	2	2	2	2	1	1	1	1	1	1
Conservation	2	2	2	1	1	1	1	2	2	1
Engineering	7	7	7	7	6	6	5	5	6	6
Total employees	37	37	37	36	33	32	34	35	37	38



Source: Marina Coast Water District's Finance Department

MARINA COAST WATER DISTRICT Operating and Capacity Indicators Last Ten Fiscal Years Schedule 13

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Facilities										
Distribution pipeline (miles)	142	142	142	142	142	142	147	147	147	147
Storage capacity (mg)(1)	12	11	11	11	11	11	11	11	11	11
System capacity (mgd)(2)	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
Water produced										
Water produced - Marina (mg)(1)	638	622	530	595	470	575	483	432	454	536
Average per day (mgd)(2)	1.7	1.7	1.5	1.6	1.3	1.6	1.3	1.2	1.2	1.5
Water produced - Ord (mg)(1)	969	671	828	755	926	837	703	551	481	574
Average per day (mgd)(2)	1.9	1.8	2.3	2.1	2.5	2.3	1.9	1.5	1.3	1.6
Total water produced (mg)(1)	1,334	1,292	1,357	1,351	1,395	1,412	1,187	983	935	1,110
Average per day (mgd)(2)	3.7	3.5	3.7	3.7	3.8	3.9	3.3	2.7	2.6	3.0

(1) mg = million gallons(2) mgd = million gallons per day

Source: Marina Coast Water District's Finance Department

Marina Coast Water District Agenda Transmittal

Agenda Item: 12-C Meeting Date: December 17, 2018

Prepared By: Brian True Approved By: Keith Van Der Maaten

Agenda Title: Consider Adoption of Resolution No. 2018-69 Approving an Amendment to the

On-Call Engineering Services Agreement with Harris & Associates for Ongoing

Construction Support Services to the East Garrison Development Project

Staff Recommendation: Staff recommends that the Board of Directors adopt Resolution No. 2018-69:

- 1. Authorizing the General Manager to execute an Amendment to the On-Call Engineering Services Agreement with Harris & Associates to provide on-going construction support services for the East Garrison development project for a not-to-exceed cost of \$142,810; and,
- 2. Directing the General Manager to take all actions and execute all documents as may be necessary or appropriate to give effect to this resolution.

Background: 5-Year Strategic Plan Mission Statement — To provide our customers with high quality water, wastewater collection and conservation services at a reasonable cost, through planning, management and the development of water resources in an environmentally sensitive manner.

The District has entered into three Infrastructure Agreements with the Developer of East Garrison since 2010 beginning with their Phase 1 work and continuing today with Phase 3. The name of the current Developer has changed twice since 2010 (currently, the Developer's name is Century Communities) but the entity itself has remained constant. Phases 1, 2, and 3 of the East Garrison development are largely complete in terms of the installation of the public water and wastewater infrastructure. Work by the Developer remaining within the East Garrison development includes the final townhomes construction in Phases 1 and 2, almost the entire vertical construction within Phase 3, the development of a commercial area, the construction of a multi-story condominium building, and a variety of park and other landscape installations.

On November 20, 2017, the Board adopted Resolution No. 2017-66 authorizing the On-Call Engineering Services contract with Harris & Associates to provide construction support and inspection services to MCWD. Through this contract and several others, Harris has been providing construction support services for the East Garrison development, and the Developer has funded the Harris & Associates construction support services for all three phases of the East Garrison development project as follows (through November 24, 2018):

East Garrison Phase 1 - \$127,802

East Garrison Phase 2 - \$393,134

East Garrison Phase 3 - \$129,136

TOTAL \$650,072

Discussion/Analysis: The current contracts between MCWD and Harris for service to the East Garrison project, all set-up on a phase-by-phase basis, have insufficient balances to cover the proposed upcoming work to be performed by Harris. Staff recommends an amendment (via Task Order) to the Harris on-call contract for an additional amount not to exceed \$142,810. The duration of the work covered by this amendment is roughly 10-months (anticipated expenditure of the estimated hours by September, 2019). Staff further recommends that the remaining work to be performed by Harris in all three phases be combined into a single contract amendment instead of having three separate contracts for each phase. This is anticipated to be administratively more efficient as the project phases approach final build-out.

Below is a listing of the scope tasks to be performed by Harris

- Review each structure for compliance with its Meter Application and assist in meter installation.
- Work with Developer to maintain compliance with landscape design and installation standards.
- Provide construction support for and inspection of new infrastructure (minimal) for the Commercial Phase of East Garrison.
- Assist in the transfer of ownership of several potable water and sanitary sewer pipelines that will serve the commercial area.
- Assist in the review of information that will finalize the transfer of infrastructure with the East Garrison Community Service District.

The work by the Developer within East Garrison will not be complete by the time the currently proposed labor hours are expended. Vertical construction within Phase 3 and the commercial area is expected to be ongoing beyond the duration of this amendment. Staff's intent is to work with the Developer and Harris in the future to have MCWD continue providing construction support services for the project.

Staff has reviewed the Harris & Associates scope and cost proposal for this contract amendment and find the level of effort and costs consistent and competitive with industry norms and within the Developer's and MCWD's expectations. Additionally, staff does not recommend changing consultants at this time in the project's history since Harris is performing quite adequately and changing consultants would lead to higher costs for the customer and increased MCWD labor hours because of a new consultant's need to learn the processes required to obtain the expected results. Staff therefore recommends that the Board adopt Resolution No. 2018-69 authorizing the General Manager to execute an amendment to the Harris Associates On-Call Engineering Support Service Agreement to provide service to the East Garrison development project.

Environmental Review Compliance: This contract amendment is not a project under CEQA.
Financial Impact: Yes X No Funding Source/Recap: The cost of the proposed contract Amendment will be covered entirely by the development customer.
Other Considerations: None.
Material Included for Information/Consideration: Resolution No. 2018-69.
Action Required: X Resolution Motion Review (Roll call vote is required.)

Board Action					
Motion By	Seconded By	No Action Taken			
Ayes	Ab	ostained			
Noes	Ab	osent			

December 17, 2018

Resolution No. 2018 – 69 Resolution of the Board of Directors Marina Coast Water District

Approving an Amendment to the On-Call Engineering Services Agreement with Harris & Associates, Inc. for Ongoing Construction Support Services for the East Garrison Development Project

RESOLVED by the Board of Directors ("Directors") of the Marina Coast Water District ("District"), at a regular meeting duly called and held on December 17, 2018, at 211 Hillcrest Avenue, Marina, California as follows:

WHEREAS, Marina Coast Water District entered into an On-Call Engineering Services Agreement with Harris & Associates by Resolution No. 2017-66 on November 20, 2017; and,

WHEREAS, the Agreement requires MCWD Board authorization for on-call tasks valued at more than \$45,000; and,

WHEREAS, the currently entitled East Garrison development project is nearing completion of all phases of the project and MCWD desires to streamline services to the development customer and minimize administration costs to MCWD such that a combination of project work remaining in Phases 1, 2, and 3 within a single contract Amendment Task Order is appropriate; and,

WHEREAS, the value of the proposal from Harris & Associates is above the \$45,000 threshold and the proposed \$142,810 not-to-exceed cost is consistent with current MCWD practice and industry standard for the project work planned during the life of the Amendment; and,

WHEREAS, Harris is the long-standing construction support consultant for this development and asking them to continue the project work would constitute a cost-savings to the development and to MCWD when compared to changing the consultant.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Marina Coast Water District does hereby authorize the General Manager to execute an Amendment in the form of a Task Order to the On-Call Engineering Services with Harris & Associates for all phases of the East Garrison development project work for a not-to-exceed value of \$142,810 and directs the General Manager to take all actions and execute all documents as may be necessary or appropriate to give effect to this resolution.

PASSED AND ADOPTED on December 17, 2018 by the Board of Directors of the Marina Coast Water District by the following roll call vote:

Ayes:	Directors
Noes:	Directors_
Absent:	Directors_
Abstained:	Directors

	, President
ATTEST:	
Keith Van Der Maaten, Secretary	
CERTIFICATE OF	SECRETARY
The undersigned Secretary of the Board of t that the foregoing is a full, true and correct copy of 17, 2018.	he Marina Coast Water District hereby certifies 'Resolution No. 2018-69 adopted on December
	Keith Van Der Maaten, Secretary

Marina Coast Water District Agenda Transmittal

Agenda Item: 12-D	Meeting Date: December 17, 2018
Prepared By: Keith Van Der Maaten	Approved By: Keith Van Der Maaten
Agenda Title: Consider Approving the 2018 Year in	Review
Staff Recommendation: Staff recommends that the Review.	Board of Directors approve the 2018 Year in
quality water, wastewater collection and conserva-	tion services at a reasonable cost, through
2017 Year in Review Report, the first such "annual" (if ever). As a follow up to that effort, staff created was presented to the Board on November 19, 2018 a	report the District has generated in some time d a draft 2018 Year in Review Report which nd comments were received. The draft 2018
meeting into the draft and sent the draft version to the complete the report by adding the necessary design e in appearance. The 2018 Year in Review report proving the series of the contract	e Districts Public Relations firm, RSE, Inc. to lements to make the report more professional yided is the latest version received and shows
Environmental Review Compliance: None required.	
Financial Impact: Yes X No	Funding Source/Recap: None.
Other Considerations: None.	Approved By: Keith Van Der Maaten ider Approving the 2018 Year in Review ion: Staff recommends that the Board of Directors approve the 2018 Year in a Strategic Plan Mission Statement — To provide our customers with high evater collection and conservation services at a reasonable cost, through ent and the development of water resources in an environmentally sensitive at Report, the first such "annual" report the District has generated in some time to be up to that effort, staff created a draft 2018 Year in Review Report which Board on November 19, 2018 and comments were received. The draft 2018 rt was also provided to the Executive and Outreach Committees for comments to the Board. Staff incorporated the Board comments from the November 19, 2018 ft and sent the draft version to the Districts Public Relations firm, RSE, Inc. to by adding the necessary design elements to make the report more professional 2018 Year in Review report provided is the latest version received and shows posed by staff. Once the Board makes their last comments, a final edited to RSE for completion. We Compliance: None required. Yes X_No Funding Source/Recap: None. Information/Consideration: 2018 Year in Review Report. Resolution X_Motion Review
Material Included for Information/Consideration: 20	018 Year in Review Report.
	MotionReview
Board Acti	ion
Motion By Seconded By	No Action Taken
Ayes	Abstained

Absent____

2017-18

YEAR IN REVIEW

Marina Coast Water District | July 1, 2017 to June 30, 2018





MISSION STATEMENT

The Marina Coast Water District provides our customers with high quality water, wastewater collection and conservation services that are safe, affordable, reliable and sustainable, through planning, management and the development of water resources in an environmentally sensitive manner.



TO OUR CUSTOMERS,

On behalf of the Marina Coast Water District (MCWD), we are pleased to present the 2017-2018 Year In Review. We share this with you as part of our ongoing commitment to communication, transparency and collaboration with our community. Together, we are accomplishing great things as we strive to achieve critical goals of conservation, protecting our groundwater and identifying new water sources while keeping your rates affordable.

It is our top priority to continue pursuing these goals as we provide you with exceptional customer service.

As we forge ahead, our strong partnership is more important than ever. As you will see in this report, we have embarked on monumental projects to identify and secure new water sources for the future. We're also fiercely committed to protecting our groundwater rights, as we continue to protect against the potential adverse impacts of the proposed Monterey Peninsula Water Supply Project desalination plant to your water supply.

This is our commitment to you, our ratepayers. Thank you for your ongoing support.

Sincerely,



Dr. Thomas P. MoorePresident, MCWD Board of Directors



Keith Van Der Maaten General Manager, MCWD

1960	1970	1991	1992- 1997	1993	1994	199
Formation of Marina County Water District	Construction of District's sewage treatment plant	Established the first Water Conservation Commission in Monterey County	Operated the first Publicly Owned Recycled Water System in Monterey County	District enters into agreement to treat wastewater at the Regional Treatment Plant	Name change to Marina Coast Water District	Began servi Ord Commo Began oper of 300 afy desalinatio plant Closure of I Ord Militar

OUR STORY

In 1958, dedicated local citizens created the Marina Community Service Corporation to ensure their access to safe and affordable water. Two years later, the Marina County Water District was formed by a vote of the 766 registered voters in then unincorporated Marina. In 1966, voters also authorized the sale of water bonds totaling \$950,000 to acquire a privately-owned water company to serve the region. Eleven candidates vied for the Board seats in the first election. These dedicated directors, who were instrumental in the formation of the District, were Raymond S. Isakson, William Williams, George E. Boutonnet, Augusta J. Briley and Robert Workman.

As the area developed and grew in population, there was a need to address septic problems and sanitation services. In 1970, the District built a sewage treatment plant financed by \$1.3 million in sewer bonds. We operated the plant until 1993 when the Monterey Regional Water Pollution Control Agency began treating Marina's wastewater at the regional plant. Though we stopped treating wastewater, we continued to operate and maintain Marina's sewer conveyance system.

Throughout our history, we have remained committed to scientific research and the preservation of our most precious resource. As studies revealed seawater

7	2001	2005	2006/ 2007	2012/ 2015	2017	2018
ing the unity	Transfer of title to water and sewer	Inter-connected the Marina and Ord Water	Began service to Seaside Highlands	Began service to East Garrison and Dunes	Began service to Sea Haven Homes	Broke ground on RUWAP/ PWM recycled
ation	infrastructure and rights for	Systems, giving Ord access	and Dunes commercial	Homes		water project
n	Fort Ord from U.S. Army to	to the deep aquifer wells	businesses			
ort	MCWD	and Marina access to the	Marina and Ord water			
y base		water storage tanks	systems permits combined by State			

intrusion in our main water source, the 180-foot aquifer, we stopped pumping in this aquifer near the coast (we still pump but inland in the 180-foot aquifer). Seawater was intruding because more water was being pumped out regionally, not just MCWD, than was being replenished naturally. So in 1983 we turned to another source, drilling three deep wells into the 900-foot aquifer. Groundwater continues to serve as the primary water source.

We also changed our name along the way. After 35 years as the Marina County Water District, the name was changed in 1994 to Marina "Coast" Water District. This was an effort to avoid potential confusion that we were part of the county government.

In 1997, we began operating a desalination plant that produced 13 percent of our water supply to supplement well water. The plant remained in service for several years until a sudden rise in electricity costs made it financially unfeasible to continue operating.

Also in 1997, the U.S. Army closed the Fort Ord Military base and contracted with MCWD to operate its water and wastewater systems. In 2001, they officially transferred the systems to us. Since we combined services and resources with the base, we have improved our water distribution and storage efficiency while decreasing operating costs.

01: WATER SOURCES

Our objective is to manage and protect our current water source (groundwater) and find alternative water sources. We will secure and protect our developed potable water sources sufficiently to supply current and future customers. Our water sources strategy is to work with local land use jurisdictions to determine what their ultimate and interim projected demands will be and explore alternative water sources such as desalination, surface water treatment and recycled water, to secure an efficient and cost effective water source portfolio.

Meet Your New Water Resources Manager, Patrick Breen

In September 2016, MCWD became a Groundwater Sustainable Agency. In March 2018, MCWD created a new Water Resources Department and promoted Patrick Breen as the new Water Resources Manager. Prior to his current role, Patrick served the last 6 years as MCWD's Project Manager and served a major role in overseeing the Regional Urban Water Augmentation Project (RUWAP). Before coming to MCWD, Patrick spent more than a decade as a California Community College planning and development consultant, specializing in design and construction implementation.He graduated from California State University, Chico with a Bachelor of Science in Business, specializing in Production and Operations Management. A sixth generation Californian, Patrick was born and raised in Hollister. His family has farmed and cattle ranched in the Hollister area since arriving in 1848 after being

rescued in the Sierras as part of the infamous Donner Party. He grew up working on the ranch and enjoying the outdoors, hunting and fishing.

Patrick will develop and implement strategies related to water resource planning and policy. This will include a reliable future water supply that meets quality and regulatory compliance issues. He will plan, manage and oversee a comprehensive water conservation program and staff to assist in producing long-term water supply plans, including the Urban Water Management Plan, the Water Shortage Contingency Plan and the Districts' Groundwater Sustainability Plan. The following chart from MCWD's 2016 Urban Water Management Plan show the projected supply need for its service to the Ord and Marina Communities in acre-feet per year from today to 2035:



Patrick will be responsible for maintaining active liaisons with all local land-use jurisdictions, committees and regional partners with water-related interests. He will work closely with the staff engineers and consultant hydrogeologists and will be responsible for administering the agendas and priorities of the Water Conservation Commission.

Water Conservation Commission Improvements and Water Conservation Programs

MCWD was the first agency in Monterey County to have a Water Conservation Commission. It began as a Water Conservation Task Force in 1990 and from that the Commission was created in 1991. After nearly 30 years, the Board of Directors and staff agreed that it was time to make important changes to the Commission. The size of the Commission was reduced, and the proceedings will now be held in a more formal venue. The Water Conservation Commissioners will provide valuable insight and advice to the Board that will advance the District's leadership role in water conservation and promote innovative solutions to the water supply challenges we face in the Monterey Region. The five seats on the new Commission have terms of 24 months and will begin in January 2019. The following is a summary of the District's current water conservation programs over the last year:

Water loss/Management

- Water Loss Audit Completed in 2018 (for water use through 2017)
- 288 water meters were added to unmetered homes; Ongoing effort to replace older, failing meters

WaterLink Retrofit Project

- 384 residential homes retrofitted (showerheads, faucet aerators); 279 homes retrofitted at Sun Bay Apartments, 73 homes retrofitted at Bay View Community
- Estimated savings:4,847,232 gallons per year

Rebate Programs

- 86 Clothes Washer Rebates (program modified to high efficiency washers)
- 474 Toilet Rebates, high efficiency (121 homes, 300 toilets in Hayes Park)
- 33 Landscape incentive projects completed
- 8 hot water pump rebates

School Program

- New Water Conservation/Water Science Teacher hired
- 97 classroom presentations, reaching over 1,300 students and school staff.
- Expansion program into middle school

Landscape Training Seminar for Landscape Contractors

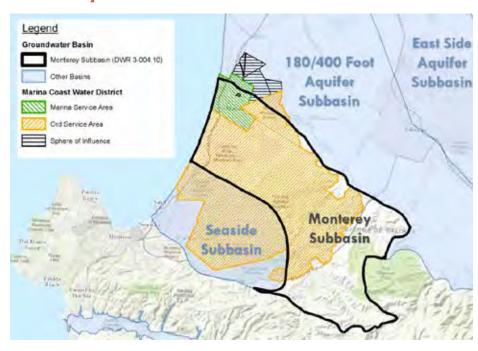
• 65 Attendees from 17 landscape companies

Public/Private Water Conservation Events and Outreach

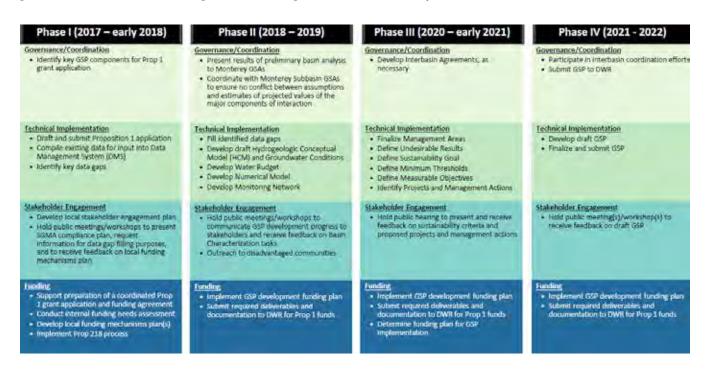
- MPUSD Job Fair
- CSUMB Events: Service Learning Fair, Internship Conference, Otter Expo
- Earth Day events: City of Marina Earth Day, DOD Center Earth Day, CSUMB Earth Day
- CSUMB Classroom visits (2 visits)
- Fort Ord Clean-up special events (2 events)
- East Garrison HOA meeting
- "Light of the Night" event
- Various Water Awareness Committee events:
 Monterey County Fair, Cutting Day, Farmer's Markets
- Labor Day Festival
- Cars in the Park event
- Marina Farmer's Markets (2 events)

Groundwater Sustainability Plan Development

In 2015, the California **Department of Water Resources** granted MCWD exclusive **Groundwater Sustainability** Agency (GSA) status in portions of the Monterey Subbasin and the 180/400 Subbasin. The responsibility of a GSA is to develop and implement a groundwater sustainability plan (GSP) to return the basin to sustainability. Becoming the exclusive GSA is part of MCWD's ongoing commitment to protecting ratepayers, defending groundwater rights, maintaining and improving infrastructure, and fulfilling its obligation to provide safe drinking water at affordable rates.



This past year, MCWD hired EKI as its GSA consultant. A kickoff meeting was held in September 2017 with various stakeholders interested in the development of our Groundwater Sustainability Plan (GSP). Additionally, MCWD organized a basin-wide meeting of all GSA's in the Salinas Valley Groundwater Basin and the Paso Robles Basin to foster collaboration and an awareness of grant funds that could be obtained. Over the past year, MCWD has made significant progress in developing its groundwater sustainability plan. The following shows the phases and timeline for development and completion of the Monterey Subbasin GSP:



Groundwater Sustainability Coordination Agreements

MCWD is committed to working with other GSAs and stakeholders in the region, including the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA). To promote collaboration, MCWD signed a Coordination Agreement in 2017 with the SVBGSA. We did this to facilitate a positive working relationship and streamline efforts and resources moving forward. As part of the agreement, both agencies joined forces to apply for grant funds. MCWD was subsequently awarded a \$1 million grant from the Department of Water Resources for the Development of the Monterey Subbasin GSP.

This strategic partnership with the SVBGSA will also be further enhanced by a refreshed relationship with the Monterey County Water Resources Agency. MCWD and the MCWRA have been discussing moving forward with a partnership to coordinate and share data for modeling of the Salinas Valley Aquifers to better understand the condition and dynamics of the aquifers to develop plans to maintain and enhance the primary water source for the Marina Coast ratepayer. Specifically, MCWD will be working with the SVBGSA and the MCWRA to finalize the development of United States Geological Survey model for the entire Salinas Valley.

MCWD is currently working on a framework agreement with the SVBGSA as part of the GSP development to further describe coordination of data sharing and other key elements of the GSP plans. Additionally, in August 2018 the District has renewed and increased efforts to obtain coordination in sharing of data and the use of the Salinas Valley Integrated Groundwater Model (SVIGM) with the Monterey County Water Resources Agency. MCWD offered to share the recently completed Stanford Aerial Electromagnetic Survey data and other data we have that MCWRA is not currently using in their models or basin analysis.

MCWD, Fort Ord Reuse Authority, M1W Water Augmentation Agreement (MOU)

In 1998, MCWD entered the "Water/Wastewater Facilities Agreement' with Fort Ord Reuse Authority (FORA) to acquire, construct, operate and furnish water supplies and facilities to support the BRP economic redevelopment program. As part of the BRP, FORA determined that the redevelopment of the Ford Ord Community required additional water sources and facilities capable of delivering 2,400 acre-feet per year of water. This is in addition to the 6,600 AFY of groundwater rights that MCWD owns outright or manages on behalf of the Army for the Ord Community.

In 2016, MCWD and Monterey One Water entered into the "Pure Water Delivery and Supply Project" (Pure Water) agreement. MCWD secured the right to 1,427 acre-feet of Pure Water for augmentation of the Ord Community supply. For the remaining 973 acre-feet of water, a Memorandum of Understanding (MOU) was signed by MCWD, FORA and Monterey One Water. This is a three-party effort to study alternatives to supply the remaining water augmentation and share costs for this work. FORA staff requested that MCWD manage the planning process, and the effort kicked off in October 2018 with an estimated completion in mid-2019. In this study, we will thoroughly evaluate a number of options including conservation, desalination, storm water capture, aquifer storage and recovery and additional advanced treated recycled water. Over the last year, MCWD has been gathering data and developing technical information for each of these options. We plan to complete the study and develop the augmentation plan by June 2019.

Regional Urban Water Augmentation Project (RUWAP)

Construction is underway on the Regional Urban Water Augmentation Project (RUWAP), a recycled water transmission and distribution system. RUWAP's ten-mile long pipeline will be owned, constructed, and operated by MCWD and will serve both the RUWAP and Monterey One Water's (M1W) Pure Water Monterey (PWM) Project. The District has been coordinating funding and construction of this important milestone with the FORA and M1W.

At final buildout, the RUWAP will provide 1,427 acre-feet per year (465 million gallons per year) of recycled water for use within the District and up to 3,700 acre-feet of Pure Water to the Monterey Peninsula. For phase 1 of the RUWAP, the pipeline will deliver 600 acre-feet of advance treated water to MCWD customers. This recycled water will be used for urban landscape irrigation instead of groundwater thereby reducing our reliance on groundwater and diversifying and expanding the District's water supply.

Since we broke ground in February of 2018, MCWD has completed construction of the pipeline and is now working on the storage tank. MCWD is currently working on the design of the distribution mains that will allow the District to deliver recycled water to its customers.

Funding for the RUWAP is through State Revolving Grants and Loans administered by the State Water Resources Control Board and capital contributions from FORA. MCWD's project cost share is \$10,513,217 for the treatment and transmission facilities and \$11,439,582 for the distribution facilities, or a total of \$21,952,745. Of those amounts, \$7,294,568 are grant funds, so the amount MCWD needs to pay back via loans to the State is \$14,658,177. In accordance with the 1998 Water/Wastewater Facilities Agreement, FORA will contribute up to \$6 million for the project; \$4.3 million of which is a firm commitment with the rest depending upon FORA collecting additional funds. FORA's firm commitment amount reduces MCWD's net debt load for the entire project to \$10,358,177. This amount will be further reduced to \$8,628,177 if FORA provides the full \$6 million. The State loan has an interest rate of 1.8%. Payments on the State loan begin when the project is operational.

Required Disclosure: Funding for this [RUWAP] project has been provided in full or in part through an agreement with the State Water Resources Control Board. California's Clean Water State Revolving Fund is capitalized through a variety of funding sources, including grants from the United States Environmental Protection Agency and state bond proceeds. The contents of this document do not necessarily reflect the views and policies of the foregoing, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

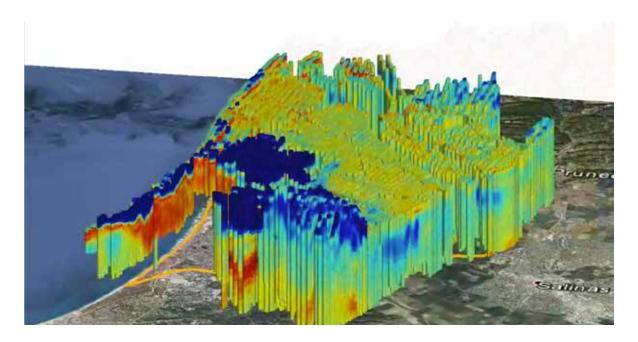




Construction of the MCWD's RUWAP Transmission Pipeline that will serve both MCWD customers and M1W's Pure Water Monterey Project which was recently completed.

Stanford University Study and the Impact on the Proposed Desalination Plant

As part of our ongoing commitment to research and innovation, MCWD partnered with Stanford University to conduct critical research and three-dimensional mapping of the northern portion of the Salinas Valley Groundwater Basin. The research team led by Dr. Rosemary Knight found that the basin contained significant freshwater and sources of recharge south of the Salinas River, contradicting previous beliefs and county studies indicating that this area was totally intruded by saltwater. More importantly, the study confirmed that the recharge in the area is acting as a barrier to prevent further seawater intrusion.



The Stanford Study has significant implications for Cal Am's proposed desalination plant. At minimum, the desal plant will pump over 15,000 acre-feet per year from groundwater wells located on the coast where the basin is most susceptible to seawater intrusion and right at the location of the existing barrier protecting the basin. Considering MCWD pumps just over 3,300 acre-feet per year, from wells further inland to serve its current customers, the amount pumped from the desal plant is substantial and at a location that would destroy the beneficial barrier that currently exists.

In addition to potentially destroying the barrier, data reveals that the desal plant will likely deplete and degrade MCWD's existing groundwater. Cal Am received permission from the California Coastal Commission to operate a test slant well. The test well intake is located in the same area where the Stanford University research revealed the presence of groundwater that is a suitable source of drinking water. Data consistently show that the test slant well is drawing groundwater from the protective barrier.

Desalination can be considered a viable water supply option provided that the costs to produce an acre foot of desalinated water is cost effective for the water utility and its customers. However, the substantial amount of pumping that would occur at the proposed source wells site for Cal Am's desalination plant endangers MCWD's groundwater supply. The Stanford University Study has confirmed the relatively good quality of groundwater south of the Salinas River, which must be protected and carefully managed to prevent saltwater intrusion.

02: INFRASTRUCTURE

Our objective is to provide a high-quality water distribution system and an efficiently operating wastewater collection system to serve existing and future customers. Through the master planning process, our infrastructure strategy is to carefully maintain our existing systems and ensure future additions and replacements will meet District standards.

Meet Your New Operations Manager, Derek Cray

In January 2018, MCWD hired a new Operations and Maintenance Manager, Derek Cray. He plans, organizes and provides administrative direction and oversight for all MCWD operations, maintenance and laboratory functions. He also handles the maintenance of water treatment and distribution and wastewater collections systems and related facilities. Derek ensures the reliable operation of all equipment, ensures conformance with applicable laws, regulations and MCWD policies. He also fosters cooperative working relationships with intergovernmental and regulatory agencies.

Derek comes to MCWD with 17 years of public service work in the cities of Turlock, Ceres and the South San Joaquin Irrigation District. He currently holds both a Water Treatment T5 and Water Distribution D5, along with certifications in Wastewater Collections and Backflow and he earned his Bachelor of Science in Business Management in 2016. Derek is a native of Turlock and spent his entire life there until making the move to join us here at MCWD. Derek has a true passion for water and he enjoys the challenges that this industry is constantly facing.

Computer Maintenance Management System (CMMS)

To continue to move forward on increasing proactive maintenance and improve overall maintenance management effectiveness, MCWD's Computer Maintenance Management System (CMMS) went through a significant upgrade this last year, allowing staff to manage assets more efficiently. We now can create work orders, conduct daily develop preventative site inspections, maintenance programs, and track inventory. All of this can be accomplished in the field, through a tablet device utilizing GPS. This allows our operations and maintenance staff to reduce the hours they previously spent creating and completing work orders.

The water and sewer systems that the District is responsible to operate and maintain that will benefit from the upgraded CMMS:



8,162 service connections; 34,980 population served



162 miles of water mains; 150 miles of sewer mains



8 potable well sites;6 booster pump stations



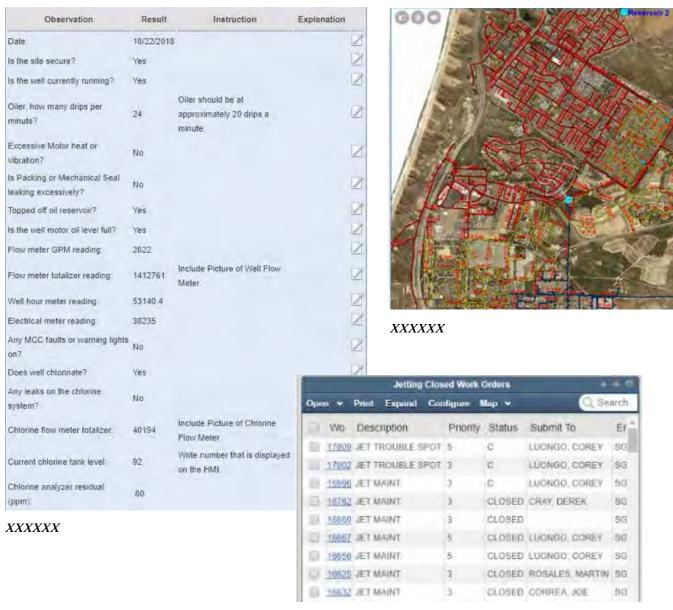
8 storage reservoirs; 5 pressure zones



20 Sewer lift stations



Gallons pumped in FY 17/18: 1.11 Billion Gallons (3,407 Acre Feet) By replacing "pen and paper" rounds with the CMMS, MCWD is enhancing the quality of our data and reducing our carbon footprint. Our staff can also now pinpoint projects with precise accuracy. The following examples show the new daily rounds inspection sheet, the work order "inbox", and the incorporation of the CMMS work orders into the Districts CityWorks Graphical Information System (GIS):

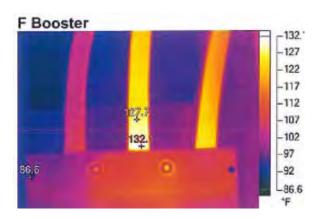


XXXXXX

Motor Control Center Thermography Program

This year, all Motor Control Centers (MCCs) throughout the district were inspected and provided maintenance by Tesco. MCCs are a critical component of the water and wastewater system, providing the power and controls which operate the various pumps and motors. The maintenance procedure included thoroughly cleaning all MCCs and conducting thermal imaging for hot spots, verifying voltages and checking for loose connections. During the inspections, several deficiencies were found that have since been repaired to prevent potential system failures.

Below is a sample report that Tesco provided to MCWD. It includes a photo of a hot spot detected inside the MCC at a water pumping station.





Visible Light Image

Water Treatment Enhancements

Providing safe drinking water is our top priority and we continuously evaluate our procedures to utilize the most efficient and secure systems for the treatment of our supply. That is why we switched to a better process this past year. The previous treatment process was maintenance intensive and expensive to operate due to the power required to generate the chlorine on site. Our new system is far more efficient, replacing large chlorine generators with more modernized, smaller pumps and storage tanks. Below is a photo of all the old equipment required to generate chlorine compared to the new system which utilizes a small, smart pump skid:





XXXXXX

Replacement of Water Quality Analyzers

In the past year, MCWD replaced aging chlorine analyzers with a more robust, membrane analyzer, which delivers a more accurate result and requires less maintenance. Also installed are new conductivity analyzers which will allow staff to monitor the aquifer more closely. These analyzers are connected into the District's Supervisory and Data Acquisition (SCADA) which allow operators to accurately trend data and get notified on any significant changes that could impact water quality.

Below on the left is a picture of the old analyzer and on the right is its replacement:



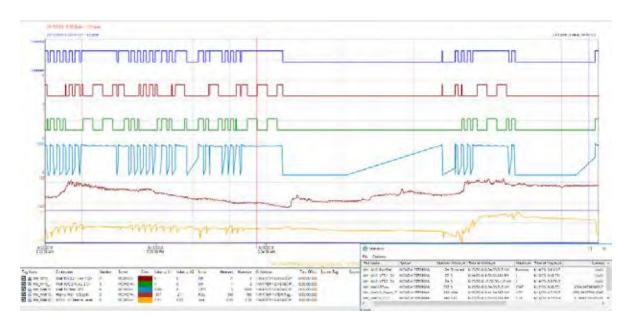


An old Water Quality Analyzer

The new Water Quality Analyzer

SCADA Historian Server Installation

The District installed a new Historian Server for its SCADA telemetry system. This server and associated software allow staff to review historical data more quickly and allows for customization and reporting. Operators can track various data fields such as chlorine residuals, pump starts or reservoir levels. All of which are represented visually on a graph for easy interpretation. These important tools allow the Operators to optimize both the water and wastewater systems. Below is an example of a MCWD's Historical trend created by an Operator:



Water/Sewer Master Plans

Recognizing the importance of developing water system facilities for existing customers and to serve anticipated growth, MCWD initiated the preparation of sewer, water and recycled water master planning studies this past year. The sewer and water master plans will replace previous plans completed in 2005 and 2006. The recycled water master plan will be a new addition. These master plans will include a recommended schedule of facility improvements to meet the projected sewer, water, and recycled water needs in the Marina and Ord communities. Plans will also include a proposed capital improvement program with engineering estimates for the proposed infrastructure improvements over the next 30 years. The proposed project costs are used to develop the 5-year capital improvement project program and action plan for system expansion. The master plans are then used to assign costs to be covered by rates and costs to be recovered through capacity fees. The master plans and the Capacity Fee Study are expected to be completed by March 2019.

Monterey Bay Military Housing Meter Project

This year, staff finished the installation of 895 meters within the Monterey Bay Military Housing area. This was a collaborative project funded by the MBMH. This project started in June of 2015 and was completed August 8, 2018 well ahead of the State Law requiring all unmetered services to be metered by 2025. A total of 895 meters were installed for a total project cost of approximately \$786,000. The project was completed at a significant cost savings by doing the work with "in house" MCWD staff. At right is a picture of staff installing a residential meter for the project:



03: FISCAL PLANNING

Our objective is to manage public funds to assure financial stability, prudent rate management and demonstrate responsible stewardship. Our fiscal strategy is to forecast, control and optimize income and expenditures in an open and transparent manner. We will efficiently use our financial resources to assure availability to fund current and future demands.

Rate Study

MCWD recently completed a 5-year comprehensive Water and Wastewater Rate Study and Financial Plan to ensure that water and wastewater rates are reasonable and fair to our customers, to ensure they meet our prudent reserves goal by 2023, to have sufficient funds in our reserves to continue operations along with payment of annual expenditure and debt obligations, and to ensure that there will be adequate capital and other reserve funds.

Along with the study, MCWD conducted several community workshops to ensure public input and participation in the rate setting process. MCWD also conducted a formal Cost Allocation Plan, which was completed by Carollo

Engineers, documenting their review of how MCWD overhead costs are allocated among its four cost centers. The study determined that MCWD's approach not only meets State and Federal requirements, but also achieves best management principles of financial statements that are reasonable, consistent, repeatable and documented.

MCWD 2018-2019 water rates are among the lowest in the region. While MCWD's Marina wastewater rates are comparable to other's in the region, MCWD's Ord wastewater rates are higher than those in the region because: 1) the aged Ord system, inherited from the Army, is larger and has significantly greater annual operation and maintenance (O&M) costs, and 2) these capital and O&M costs are spread over a smaller customer base. As the Ord Community continues to develop, the costs will be spread over a larger customer base and the rates will stabilize and be more comparable to MCWD's Marina wastewater rates.

Grants and Low Interest Financing

MCWD makes every effort to pursue grant funds and low-cost funding sources to keep rates as low as possible. This year we received two state loans from the Proposition 1/Clean Water Revolving Fund. This provided funding for the Regional Urban Water Augmentation Project's (RUWAP) recycled water transmission pipeline and distribution system. These are low interest loans (1.8%) totaling \$21.9 million with a grant component of \$7.2 million. In addition, MCWD became a Groundwater Sustainability Agency (GSA) and was awarded a \$1 million grant from the California Department of Water Resources through its Sustainable Groundwater Planning Grant Program, also funded though Proposition 1.

		124	7.55	Prop 1	100
Funding	Purpose	Total Funding	SRF Loan 1.8%	Loan 1.8%	Prop 1 Grant
CWSRF Loan/Grant	RUWAP Transmission Pipeline	\$10.5m	\$5.3m	\$1.7m	\$3.6m
CWSRF Loan/Grant	RUWAP Distribution System	\$11.4m	\$5.7m	\$2m	\$3.7m
DWR Grant	GS Planning	\$1m			\$1m
	Totals	\$23m	\$11m	\$3.7m	\$8.3m
	Total Loan Funding	\$14.7m	\$11m	\$3.7m	
	Total Grant Funding	\$8.3m			\$8.3m
	Totals	\$23m 100%	\$11m 48%	\$3.7m 16%	\$8.3m 36%

Certificate of Achievement for Excellence, 10 Years In-A-Row

MCWD strives to assure financial stability through prudent rate management, controlling expenditures and optimizing income in an open and transparent manner. MCWD's 2017 Comprehensive Annual Financial Report (CAFR) was awarded the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association (GFOA). The Certificate of Achievement is the highest form of recognition in governmental accounting and financial reporting. This marks the tenth consecutive award for MCWD, indicative of our efforts to be transparent and prudent with our financial reporting.



04: STRATEGIC PARTNERS AND PUBLIC AFFAIRS

Our objective is to build our relationship with the public and local agencies. Our strategy in the areas of strategic partners and public affairs is to communicate in a positive way, including active listening and encouraging open discussions.

Social Media Presence

Social media platforms including Facebook, Instagram and Twitter provide MCWD engaging channels to interact with customers and community stakeholders and provide water conservation resources and information. The District has continued to expand its use of social media to communicate with our customers and community over the past year. Through these social media communications, MCWD generates more than 5,000 impressions and 100 engagements organically on a monthly basis. Specific activities and content for each channel include:



MCWD Facebook Page

MCWD manages a fan page on the Facebook platform. The page allows fans to keep up-to-date on what MCWD is doing, provides water conservation tips, and highlights office culture and events MCWD and community partners are hosting.



MCWD Twitter Page

Twitter is a real-time information network that connects users to the latest regional water stories, ideas, opinions and news. Users are able to get real time updates by following @MarinaCoastH2O or monitoring the hashtag #FutureH2O.



MCWD Instagram Page

Instagram is an extremely visual social network. Content includes pictures and videos from events and throughout the district, as well as tips on water conservation.

News & Outreach - Protecting Our Water From Cal Am!

Communication with our ratepayers is a key objective, and MCWD continues to engage in outreach efforts and community meetings to ensure transparency and collaboration with the community. Our rate setting process, for example, involved input from the community and a rate study to ensure that we set fair and fiscally responsible water rates.

We have also continued engaging the local press and statewide news media in an effort to highlight our leadership in water conservation and our investment in cutting-edge research to protect our water supply. In this past year, these outreach and public relations efforts have been more important than ever as we face Cal Am's proposed desalination plant. Our concerns center on the proposed location of Cal Am's source wells on the CEMEX property impacting our groundwater supply and those concerns have been documented on our local National Public Radio station, KION radio and Capitol Weekly, a statewide publication covering government, politics and water issues. Our work on RUWAP was also featured in local TV reports when we broke ground on construction in January of 2018.

Meetings with SWRCB, Regional Board, State Lands

Unfortunately, the California Public Utilities Commission (CPUC) took a very narrow view of the Cal Am MPWSP project and its impact on our water supply when, in September 2018, the CPUC approved the desalination plant. The CPUC focused only on how the new supply could benefit growth to the Monterey Peninsula and its hospitality industries. In its decision, the CPUC completely ignored the basin impacts and water rights issues that affect the drinking water supply for the Marina and Ord Communities.

Over the last year, MCWD has had several meetings with representatives of the State Water Resources Control Board, the Central Coast Regional Water Quality Control Board, the State Lands Commission, and others to continue to ensure MCWD's drinking water supply is protected. These meetings were held to address the need to protect the Critically Overdrafted 180/400 Foot Aquifer Subbasin of the larger Salinas Valley Groundwater Basin from the saltwater intrusion that is expected to occur if the proposed Cal Am desalination plant source wells are built on the CEMEX property. Also, to address the fact that Cal Am does not have water rights to extract groundwater from the Critically Overdrafted Subbasin for its project. These discussions have been helpful in working towards regional solutions and will continue to be necessary if we are to eventually achieve a true regional solution to the entire region's water supply needs.

MCWD Partners with California State University Monterey Bay (CSUMB)

For MCWD to complete construction of the RUWAP recycled water project pipeline, it was necessary to acquire easements from California State University Monterey Bay (CSUMB). Additionally, it has been necessary for MCWD to secure easements from CSUMB to construct critically necessary reservoirs for the District's distribution system.

In April, MCWD entered into an agreement with CSUMB which provided the easements for construction of the RUWAP pipeline and the reservoirs. As part of the Agreement, MCWD will provide 87 acre-feet per year of RUWAP water to the university. As a result of many meetings this past year in coming to agreement, CSUMB and MCWD are working together closely to ensure collaboration as we pursue our individual master plans.

MCWD Collaboratively Interacts with Multiple Public Agencies

MCWD works collaboratively with many agencies to provide the best service to our customers and to promote a regional problem solving approach that takes in the many varied interests and positions of our partners, interactors, and Non-Governmental Organizations (NGO). The following is a table listing those agencies:

Table of Publ	ic Agency Partners a	nd Interactors
City of Marina	California Public Utility Commission	Public Water Now
Monterey One Water	California Department of Water Resources	Citizens for Just Water
Fort Ord Reuse Authority	State Water Resources Control Board	Special Districts Association of Monterey County
Monterey Peninsula Water Management District	Monterey Bay National Marine Sanctuary	Water Ratepayers Association of the Monterey Peninsula
Monterey County Water Resources Agency	California Public Employee Retirement System	Association of California Water Agencies
Salinas Valley Basin GSA	U.S. Environmental Protection Agency	California Special Districts Association
Seaside County Sanitation	U.S. Geological Survey	Stanford University
Monterey County LAFCO	California State Lands	
City of Seaside	Central Coast Regional Water Quality Board	
County of Monterey		
City of Monterey		
City of Del Rey Oaks		
Monterey Peninsula Unified School District		
CSU Monterey Bay		

05: ORGANIZATIONAL HEALTH & PERSONNEL

Our objective is to recruit and retain a highly qualified, diverse and inspired workforce that delivers the essential services of our mission statement to the public while providing outstanding customer service. Our strategy is to utilize sound policies and personnel practices, offer competitive compensation and benefits, and provide opportunities for training, development, and professional growth while ensuring a safe and secure workplace.

Meet your new Human Resources/Risk Administrator, Rose Gill

In the past year, MCWD hired a new Human Resources/ Risk Administrator. Rose Gill joins the Marina Coast Water District with 25 years' experience in Human Resources and Risk Management. Rose's experience includes 10 years of public sector service at the Salinas Valley Solid Waste Authority after her family relocated to Marina from Fresno. While at the SVSWA, Rose introduced many new programs such as succession planning, an organizational strategic plan and, while there, the Authority was awarded the "Best Place to Work" for Monterey County. Rose has also worked for Westlands Water District and the Home Depot in Fresno. Rose earned a Bachelor of Science degree in Organizational Behavior from the University of San Francisco and a Master's in Business Administration from CSU Monterey Bay.

New Programs for Staff Development

MCWD rolled out several new programs this year to promote the growth and development of our staff. The programs include:

- **Employee Cross Training Program** This is designed to transfer institutional knowledge between positions by teaching employees to do multiple jobs so they can shift gears as needed. This type of training will help develop a well-rounded team of individuals who can use their varied skills for whatever purpose is most urgent at that moment.
- **New Employee Performance Evaluation** MCWD revamped employee performance competencies to increase engagement and drive business outcomes. The new evaluation standards provide opportunity for impactful dialogue to advance employee careers and strengthen relationships with management.
- **Employee Development Program** We created a new pathway to set clear expectations for performance and growth. Our employee development plan also serves as a retention tool, incentivizing top employees with career development opportunities.

Classification and Compensation Study

MCWD completed a classification and compensation study this past year. The purpose of the classification review process was to ensure that: (i) classification descriptions reflect level and scope of work performed, current operations, responsibilities, duties, qualifications, regulatory requirements, and technology; (ii) class descriptions are legally compliant; and (iii) the District has adequate career paths and a classification system that fosters career

growth and service within the organization. The compensation review process evaluated the current employee benefit and compensation plan for the District's classifications against local, regional, and statewide markets and comparable employers; and provided recommendations for adjustments.

The study's recommended changes resulted in equitable, competitive and legally defensible classification and pay practices that enriches the attraction and retention of qualified individuals as well as enhances opportunities for growth and professional development.

MCWD is an Important Local and Regional Employer

MCWD plays a very important role in the local and regional job market in supporting the local economy. Fourteen of MCWD's 38 employees live in the District service area and 37 of 38 employees live in the Monterey Bay region.

06: ADMINISTRATION MANAGEMENT

Our objective is to create, maintain and implement policies and procedures to ensure sound management of the District. We will also maintain and use appropriate technology to maintain efficiency and redundancy. Our strategy will be to conduct periodic review, refinement and implementation of policies and procedures and ensure that staff has the direction and tools necessary for successful operations throughout the District.

Meet Your Information Technology Administrator, John Bardos

MCWD created the Information Technology Administrator position to help provide improved customer service, innovative maintenance management and better overall management. "If you can't measure it, you can't manage it." Complex, integrated applications that often aren't fully utilized to their potential can limit the District in best management practices with customer service, development management, project management, maintenance management, assets and financial reporting. John Bardos was hired to address this.

John has a rich Information Technology background having run a successful consulting practice for 20 years. When he joined MCWD, he updated our computer systems to enhance our efficiency and customer service. This included a large upgrade of the Esri and Cityworks systems, providing an up-to-date platform to fully implement a Computer Maintenance Management System and related business processes. Now, our operations and maintenance staff can use mobile devices in the field for asset and work order management. John also upgraded the MCWD phone system, networking, and meter reading systems.

John has been an employee of UC Santa Cruz for nearly 30 years as a Physical Education Instructor teaching Racquetball Classes, organizing the Racquetball Club, and coaching the Racquetball Team.

Annexation and FORA Transition

MCWD's current jurisdictional boundaries encompass 3.2 square miles, and its sphere of influence encompasses an additional 2.4 square miles.

MCWD has filed an application with the Monterey County Local Agency Formation Commission (LAFCO) to annex 8,869 acres of the Ord Community where it already provides water service or where the applicable land use jurisdiction has entitled the property to receive water service. MCWD has provided water service and wastewater collection systems to the Ord Community since 1997. (FORA evaluated regional water providers and selected MCWD as the water service provider for the Fort Ord Community. However, until the annexation process is completed, these customers have not been able to vote in District elections or to serve on the District's Board of Directors. That's why MCWD has pursued the annexation. MCWD is working towards a public hearing at LAFCO in early 2019 with the objective of getting the annexation approved in the summer of 2019.

Over the years we've made significant investment in the Ord Community including upgrading the former Army infrastructure to California standards, expanding facilities to accommodate Fort Ord's economic redevelopment, adding staff and equipment, adopting redevelopment standards and procedures, and preparing master plans and water supply project studies. Annexation is the next logical step. Because of the existing significant differences in the capital and operations and maintenance costs between the Central Marina and Ord Community cost centers, those cost centers shall remain separate after annexation.

Service Agreements for the Post-FORA Era

Once FORA sunsets, MCWD will continue to provide water and wastewater services to the Ord Community for the economic redevelopment of Fort Ord as envisioned in the Base Reuse Plan. MCWD has commenced discussions with various Fort Ord land use jurisdictions to get their input and to stimulate constructive discussions on a post-FORA water and wastewater service agreement for each jurisdiction.

Currently the draft discussions include preserving current water and recycled water allocations, processes for annexing territory into MCWD not included in the current annexation, processes for development of new water sources, and processes for ensuring ongoing coordination. There remains uncertainty on whether FORA will be extended beyond its 2020 statutory sunset date, but whether FORA is extended or not, these service agreements will provide a solid foundation for MCWD water and wastewater services to these jurisdictions moving forward.

MCWD's 5-year strategic plan summary

All the efforts described in this report serve to support the District's 5-year Strategic Plan and the goals within that plan that were established by the Board of Directors. While the Year in Review Report is organized to include efforts under each objective that it most applies to, in many cases, the efforts serve to meet many objectives and don't just fit into one category. Below is a summary table of the District's goals and how each of the efforts described in this report support all the Strategic Plan elements:

Strategic Plan Element

Associated Efforts in the Year in Review Report

1.0 Water Sources

Our objective is to manage and protect our current water source (groundwater) and find alternative water sources. We will secure and protect our developed potable water sources sufficiently to supply current and future customers. Our water sources strategy is to work with local land use jurisdictions to determine what their ultimate and interim projected demands will be and explore alternative water sources such as desalination, surface water treatment and recycled water, to secure an efficient and cost effective water source portfolio.

1.1	Work with local land use jurisdictions to clearly establish and determine current and future water use.	
1.2	Establish the difference between available groundwater and ultimate water demands.	Groundwater Sustainability Plan Development
1.3	Determine the growth rate or timeline of when additional water sources will be needed.	 MCWD, FORA, M1W Three Party Augmentation Agreement Construct RUWAP
1.4	Establish a prioritized list of available alternative water sources.	 Stanford Study New Water Resources Manager
1.5	Develop an alternative water sources work plan that will carry us from conception to development.	Water Conservation Commission ImprovementsWater Conservation Programs
1.6	Establish goals and objectives that promote protecting our current groundwater source from seawater intrusion and other forms of contamination.	Replacement of Water Quality Analyzers (to track aquifer water quality)
1.7	Review and update our water conservation program.	

2.0 Infrastructure

Our objective is to provide a high-quality water distribution system and an efficiently operating wastewater collection system to serve existing and future customers. Through the master planning process, our infrastructure strategy is to carefully maintain our existing systems and ensure future additions and replacements will meet District standards.

2.1	Improvements and expansion plans for existing water delivery and wastewater collection systems.	
2.2	Develop an office/corporation yard facilities master plan.	 Upgraded Computerized Maintenance Management System New Operations and Maintenance Manager Implement New Motor Control
2.3	Develop and implement an asset management plan.	Center Thermography Program Perform Water Treatment Enhancements New water quality analyzers and SCADA Historian
2.4	Continue the development of District's geographic information system	 Complete Monterey Bay Military Housing Meter Installation Project Develop Water and Sewer Master Plans
2.5	Continue the development of the CMMS System.	 New Information Technology Administrator RUWAP Completed Water Loss Audit in 2018 (for water use through 2017)
2.6	Leak audit and detection.	

3.0 Fiscal Planning

Our objective is to manage public funds to assure financial stability, prudent rate management and demonstrate responsible stewardship. Our fiscal strategy is to forecast, control and optimize income and expenditures in an open and transparent manner. We will efficiently use our financial resources to assure availability to fund current and future demands.

3.1	Five-year financial plan and rate study.	
3.2	Regular financial updates to policymakers and managers.	· Achieved Comprehensive Annual
3.3	Best accounting practices.	Financial Report Award
3.4	Close and audit financial statements in a timely manner.	· Completed Rate Study
3.5	Obtain the Certificate of Achievement in Financial Reporting annually from the Government Finance Officers Association.	 Obtained SRF grants, DWR grants, and SRF low interest Loans
3.6	Fiscal reserves management for the maintenance/replacement/expansion of the District's infrastructure.	

4.0 Strategic Partners and Public Affairs

Our objective is to build our relationship with the public and local agencies. Our strategy in the areas of strategic partners and public affairs is to communicate in a positive way, including active listening and encouraging open discussions.

4.1	Develop a Strategic Communications Plan focused on community outreach	 Groundwater Sustainability Coordination Agreements CSUMB Easement Agreement MCWD, FORA, M1W Three Party
4.2	Develop a Strategic Communications Plan and Communicate with our strategic partners.	Augmentation Agreement Meetings with Regional Board, State Water Resources Control Board, and State Lands Commission
4.2	Adopt a plan for technology use in public affairs.	RUWAPSocial Media Presence and New ReleasesStanford Study
4.3	Establish clear standards for the construction process.	 Hired New Water Resources Manager to serve as liaison to regional water supply meetings Monterey Bay Military Housing Meter Project

5.0 Organizational Health and Personnel

Our objective is to recruit and retain a highly qualified, diverse and inspired workforce that delivers the essential services of our mission statement to the public while providing outstanding customer service. Our strategy is to utilize sound policies and personnel practices, offer competitive compensation and benefits, and provide opportunities for training, development, and professional growth while ensuring a safe and secure workplace.

5.1	Recruit and retain a high performing, engaged workforce.	· Hired new Human Resources/Risk Administrator
5.2	Establish a workforce succession plan.	· Hired new Information Technology
5.3	Develop a knowledge transfer program.	Administrator
F 4		· Hired new Operations and
5.4	Conduct periodic compensation studies.	Maintenance Manager
5.5	Revise and update Employee Handbook	· Hired new Water Resources Manager
5.6	Establish and develop an employee professional development plan.	· Completed Compensation Study
		· Implemented new Programs for
5.7	Revise employee performance evaluations	Staff Development

6.0 Administrative Management

Our objective is to create, maintain and implement policies and procedures to ensure sound management of the District. We will also maintain and use appropriate technology to maintain efficiency and redundancy. Our strategy will be to conduct periodic review, refinement and implementation of policies and procedures and ensure that staff has the direction and tools necessary for successful operations throughout the District.

6.1	Annexation of the Ord Community	
6.2	Routinely review policies and procedures.	· Submitted LAFCO Annexation
6.3	Encourage Board development.	Application for the Ord Community
6.4	Conduct new Board member orientation program.	· Hired new Information Technology
6.5	Digitize district records.	Administrator
6.6	Achieve the District of Transparency	 Upgraded Computerized Maintenance Management System
6.7	Incorporate appropriate technology into the District's daily functions.	· Implement SCADA historian
6.8	Update strategic plan annually.	

LEADERSHIP

MCWD is governed by a five-member Board of Directors elected by the voters to serve four-year terms. The following is the 2018 Board of Directors and MCWD management team:

2018 Board of Directors



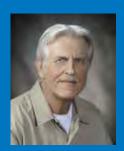
Dr. Thomas P. Moore President



Jan Shriner Vice-President



William "Bill" Lee Director



Howard Gustafson Director



Herbert CortezDirector

MCWD Management Team



Keith Van Der Maaten General Manager

Mike Wegley District Engineer

Jean Premutati Human Resources/Risk Administrator

Derek CrayOperations and Maintenance
Superintendent

Kelly CadienteDirector of Administrative Services

Patrick Breen Water Resources Manager



Administration & Customer Service

11 Reservation Road Marina, CA 93933-2099

(831) 384-6131 (831) 883-5995 (fax)

Hours: Monday — Friday, 8 a.m. to 5:30 p.m.

Engineering, Operations & Maintenance

2840 4th Avenue Marina, CA 93933

(831) 384-6131

Hours: Monday — Friday, 8 a.m. to 5:00 p.m.

Marina Coast Water District Agenda Transmittal

Agenda Item:	12-E	Meeting Date: December 17, 2018
Prepared By:	Kelly Cadiente	Approved By: Keith Van Der Maaten
Agenda Title:	Receive the Draft District FY 2019-2020 2019-2020 Budget Workshop	Budget Schedule and Set Date for the
	endation: The Board of Directors receive the for the Budget Workshop for March 04, 2	
Background: 5	5-Year Strategic Plan, Element No. 3 – Fisc	al Planning.
schedule for the Board and by	nalysis: Staff has begun the budget process the FY 2019-2020 Budget. In order to get the FORA by June 30, 2019, staff requests March 04, 2019.	ne budget approved by both the District
Environmenta	l Review Compliance: None required.	
Financial Impa	act: Yes X No	Funding Source/Recap: None
Other Conside	erations: None.	
Materials Incl	uded for Information/Consideration: Draft F	FY 2019-2020 Budget Schedule
Action Requir	ed:ResolutionMoti	on <u>X</u> Review
	Board Action	
Motion By	Seconded By	No Action Taken
Ayes	Absta	nined
Noos	A 1	

Marina Coast Water District FY 2019/2020 Draft Budget Calendar (Includes Marina & Ord Community) 12/17/2018

<u>DATE</u>	<u>RP</u>	MCWD	wwoc	FORA	DESCRIPTION
12/17/2018	DAS/GM	X			Distribute 2019-2020 Draft Budget Schedule to MCWD Board
12/19/2018	DAS/GM		X		Distribute 2019-2020 Draft Budget Schedule to FORA
02/12/2019	DAS/DH	X			Distribute 2019-2020 Budget Worksheets to Department Heads
02/19/2019	DAS/GM	X			Present 2017-2018 Mid-Year Report to MCWD Board. PUBLIC MEETING
02/19/2019	DAS/DH	X			2019-2020 Budget Worksheets due from Department Heads
02/20/2019	DAS/GM	X	X		Present 2018-2019 Mid-Year Report and Draft 2019-2020 5-Year CIP Plan to WWOC. PUBLIC MEETING
03/04/2019	DAS/GM	X			Budget Workshop Meeting (Department Heads/Board). PUBLIC MEETING
03/06/2019	DAS/GM		X		Distribute 2019-2020 Ord Community Draft Budget to WWOC 03/13/2019 meeting.
03/13/2019	DAS/GM	X	X		Present 2019-2020 Ord Community Draft Budget to WWOC. PUBLIC MEETING
04/03/2019 Special Meeting	DAS/GM		X		Q&A with WWOC on 2019-2020 Ord Community Draft Budget and provide WWOC with updates from the Budget Workshop. PUBLIC MEETING
04/15/2019	DAS/GM	X			Present Revised 2019-2020 Draft Budget to the Board. PUBLIC MEETING
04/17/2019	DAS/GM		X		Further discussion 2019-2020 Ord Community Revised Draft Budget with WWOC. Possible WWOC recommendation to FORA Board. PUBLIC MEETING
05/01/2019 Special Meeting	DAS/GM	X	X		2019-2020 Ord Community Revised Draft Budget presented to WWOC for recommendation to FORA Board (if necessary). PUBLIC MEETING
05/10/2019	DAS/GM FORAStaff	X		X	FORA Board first vote to adopt 2019-2020 Ord Community Budgets. PUBLIC MEETING
06/14/2019	DAS/GM FORAStaff	X		X	FORA Board second vote to adopt 2019-2020 Ord Community Budgets (if necessary) PUBLIC MEETING
06/17/2019	DAS//GM	X			MCWD Board adopts 2019-2020 District Budget. PUBLIC MEETING

GM= General Manager; DAS= Director of Administrative Services; DH=Department Heads

Marina Coast Water District Agenda Transmittal

Agenda Item: 12-F Meeting Date: December 17, 2018

Prepared By: Paula Riso Presented By: Keith Van Der Maaten

Agenda Title: Consider Director Appointments to Committees of the Board and to Outside

Agencies for 2019, and as Negotiators to any Ad Hoc Committees of the Board

Staff Recommendation: The Board of Directors consider making Director appointments to Board of Director's Committees and outside agencies for 2019.

Background: 5-Year Strategic Plan, Mission Statement - Providing high quality water, wastewater and recycled water services to the District's expanding communities through management, conservation and development of future resources at reasonable costs.

Discussion/Analysis: The Board is asked to consider Director appointments to committees and outside agencies for 2019. The Joint City/District, Executive, Budget and Personnel, and Community Outreach Committees shall have two appointed directors and such other persons as the Board may appoint; and, the Water Conservation Commission shall have one director appointed as a liaison who doesn't attend the meetings, but is available for direction. The Board President also has the authority to appoint members to Ad Hoc Committees and negotiators to those Committees.

The Board also appoints directors to the following: Monterey One Water (M1W) Board of Director's, Fort Ord Reuse Authority (FORA) Board of Directors, liaison to the Monterey County Local Agency Formation Commission (LAFCO), ACWA Joint Powers Insurance Authority (JPIA), the Special Districts Association of Monterey County (SDA), and the new Salinas Valley Basin Groundwater Sustainabiltiy Agency (SVBGSA Steering Committee) and MPWSP Outreach.

The Board appoints representatives to the following District Standing Committees:

1.	Water Conservation Commission Liaison	1 Board member & 1 Alternate
2.	Joint City/District Committee	2 Board members & 1 Alternate
3.	Executive Committee	2 Board members
4.	Budget and Personnel	2 Board members & 1 Alternate
5.	Community Outreach	2 Board members & 1 Alternate

The Board appoints representatives to the following outside agencies or committees:

1.	M1W (formerly MRWPCA)	1 Board member & 2 Alternates
2.	FORA	1 Board member & 4 Alternates
3.	LAFCO	1 Board member & 1 Alternate
4.	JPIA	1 Board member & 1 Alternate
5.	SDA	1 Board member & 4 Alternates
6.	FORA WWOC	1 Board/Staff member & 1 Alternate
7.	SVBGSA Steering Committee (New)	1 Board/1 Staff member
8.	MPWSP Outreach (New)	1 Board/1 Staff member

The Board appoints representatives to the following Ad Hoc committees:

1. SCSD Ad Hoc 2 Board members

Current Com	mittee Assignments are:	
1.	Water Conservation Commission	Shriner - Lee as Alternate
2.	Joint City/District Committee	Moore, Shriner – Lee as Alternate
3.	Executive Committee	Gustafson, Moore
4.	Budget and Personnel	Gustafson, Cortez – Moore as Alternate
5.	Community Outreach	Gustafson, Cortez – Moore Shriner as Alternates
Current appoi	intments to outside agencies:	
1.	M1W	Moore – Gustafson as Alternate
2.	FORA	Moore - Shriner, Gustafson, Lee
		Cortez, GM as Alternates
3.	LAFCO	Cortez – Lee as Alternate
4.	JPIA	Cortez – Shriner as Alternate
5.	SDA	Shriner - Moore, Lee, Cortez, and
		Gustafson as Alternates
6.	FORA WWOC	GM – District Engineer as Alternate
Financial Imp		Funding Source/Recap: None e on the M1W Board will receive a stipend
of \$100 per m		ill be completed and posted on the District's
Material Inclu	aded for Information/Consideration: N	one.
Action Requi	red:ResolutionX	Review
	Board Action	n
Motion By	Seconded By	No Action Taken
Ayes	A	bstained
Noes	A	bsent

Marina Coast Water District Agenda Transmittal

Agenda Item: 13-A Meeting Date: December 17, 2018

Prepared By: Michael Wegley Approved By: Keith Van Der Maaten

Agenda Title: Water, Sewer, and Recycled Water Master Plan and Capacity Fee Schedule

Staff Recommendation: The Board of Directors receive the Draft Water, Sewer, and Recycled Water Master Plan and Capacity Fee Schedule.

Background: 5-Year Strategic Plan Mission Statement – To provide our customers with high quality water, wastewater collection and conservation services at a reasonable cost, through planning, management and the development of water resources in an environmentally sensitive manner.

Discussion/Analysis: A draft water, sewer, and recycled water master plan for staff level review is anticipated to arrive in the coming week. Attached is the draft schedule for distribution, presentation, review and approval of the master plan.

Attachment:

Water, Sewer, and Recycled Water Master Plans and Capacity Fee Schedule

Marina Coast Water District Water, Sewer, and Recycled Water Master Plans and Capacity Fees (Includes Marina & Ord Community) 11/28/2018

<u>DATE</u>	RP	<u>MCWD</u>	<u>wwoc</u>	<u>FORA</u>	<u>DESCRIPTION</u>
12/17/2018	DE/GM	X			Distribute Master Plan Schedule to MCWD Board
12/19/2018	DE/GM		X		Distribute Master Plan Schedule to WWOC
01/09/2018	DE/GM		X		Distribute Draft Master Plan to WWOC for 01/16/2018 meeting.
01/16/2018	DE/GM	X			Present Ord Community Draft Master Plan and Fees to WWOC. PUBLIC MEETING
01/21/2018	DE/GM	X			Master Plan Workshop Meeting and Fees (Department Heads/Board). PUBLIC MEETING
02/06/2018	DE/GM		X		Q&A with WWOC on 2018-2019 Ord Community Draft Master Plan and provide update from MCWD Workshop. PUBLIC MEETING
02/19/2018	DE/GM	X			MCWD approves Master Plan and sets Public Hearing to adopt Capacity Fees. PUBLIC MEETING
02/20//2018	DE/GM		X		WWOC recommendation to FORA Board on Ord Community Master Plan. PUBLIC MEETING
03/8/2018	DE/GM FORA Staff	X		X	FORA Board first vote to approve Ord Community Master Plan. PUBLIC MEETING
03/18/2018	DE//GM	X			MCWD Board adopts Capacity Fees. PUBLIC MEETING
04/12/2018	DE/GM FORA Staff	X		X	FORA Board second vote to approve Ord Community Master Plan (if necessary) PUBLIC MEETING

GM= General Manager; DE= District Engineer