



**Marina Coast Water District**  
**& MCWD Groundwater Sustainability Agency**

YEAR IN REVIEW  
For 2018

# MCWD Year In Review

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## 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 Ratepayers,

On behalf of the Marina Coast Water District, we are pleased to present the 2017 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 impacts of the proposed Monterey Peninsula Water Supply Project desalination plant.

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

Sincerely,

Thomas P. Moore  
Board President

Keith Van Der Maaten  
General Manager

# MCWD Year In Review

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## Our Story (Timeline/History)

- 1960 Formation of Marina County Water District
- 1970 Construction of District's sewage treatment plant
- 1991– today Established the first Water Conservation Commission in Monterey County
- 1992– 1997 Operated the first Publicly Owned Recycled Water System in Monterey County
- 1993 District enters into agreement to treat wastewater at the Regional Treatment Plant
- 1994 Name change to Marina Coast Water District
- 1997 Began operation of 300 afy desalination plant
- Closure of Fort Ord Military base
- 2001 Transfer of water services from U.S. Army Fort Ord Military base to MCWD
- 2005 Interconnected the Marina and Ord Water Systems, giving Ord access to the deep aquifer wells and Marina access to the water storage tanks
- 2006/2007 Began service to Seaside Highlands and Dunes commercial businesses
- Marina and Ord water systems permits combined
- 2012/2015 Began service to East Garrison and Dunes Homes
- 2017 Began service to Sea Haven Homes
- 2018 Broke ground on RUWAP recycled water project

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 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 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 than was being replenished naturally from all regional pumping, not just MCWD. So in 1983 we turned to another source, drilling three deep

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wells into the 900-foot aquifer. This continues to serve as the primary water source for Marina.

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.

## Leadership and Contacts

MCWD is governed by a five-member Board of Directors elected by the voters to serve four-year terms. The following is the 2017 Board of Directors and MCWD management team:

<p><b>2017 Board of Directors</b></p> <p>Thomas P. Moore, President          Jan Shriner, Vice-President          Howard Gustafson, Director          William “Bill” Lee, Director          Herbert Cortez, Director</p>	<p><b>MCWD Management Team</b></p> <p>Keith Van Der Maaten, General Manager          Mike Wegley, District Engineer          Rose Gill, Human Resources/Risk Administrator          Derek Cray, Operations and Maintenance Manager          Kelly Cadiente, Director of Administrative Services          Patrick Breen, Water Resources Manager</p>
<p><b>Administration &amp; Customer Service</b></p> <p>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.</p>	<p><b>Engineering, Operations &amp; Maintenance</b></p> <p>2840 4th Avenue          Marina, CA 93933          (831) 384-6131          Hours: Monday - Friday, 8 a.m. to 5:00 p.m.</p>

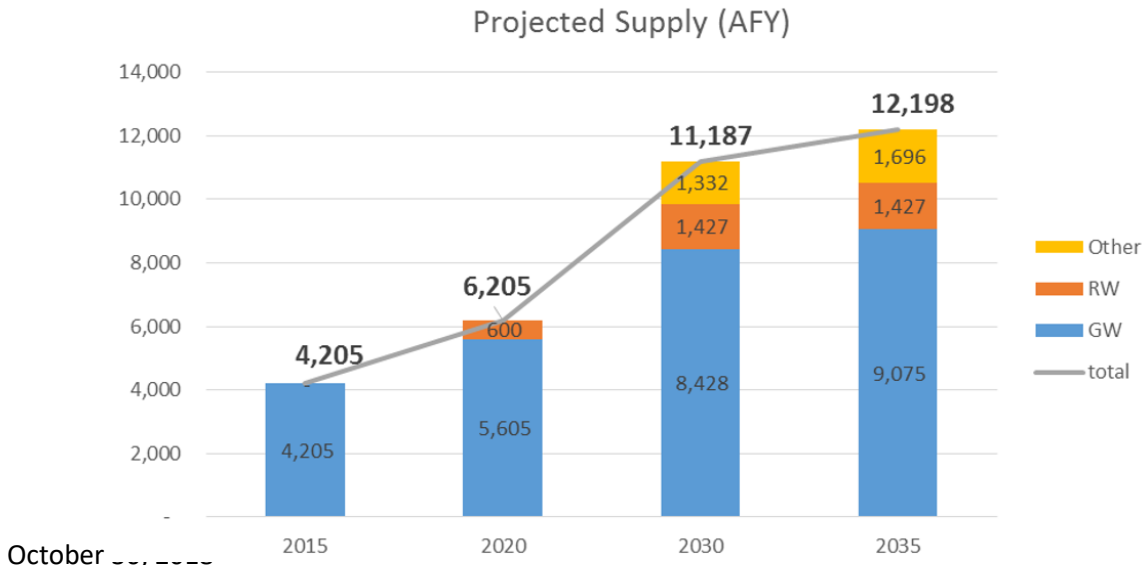
## 1.0 WATER SOURCES

*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 find the most efficient, and to secure 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 where his family has farmed and cattle ranched 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:



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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 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

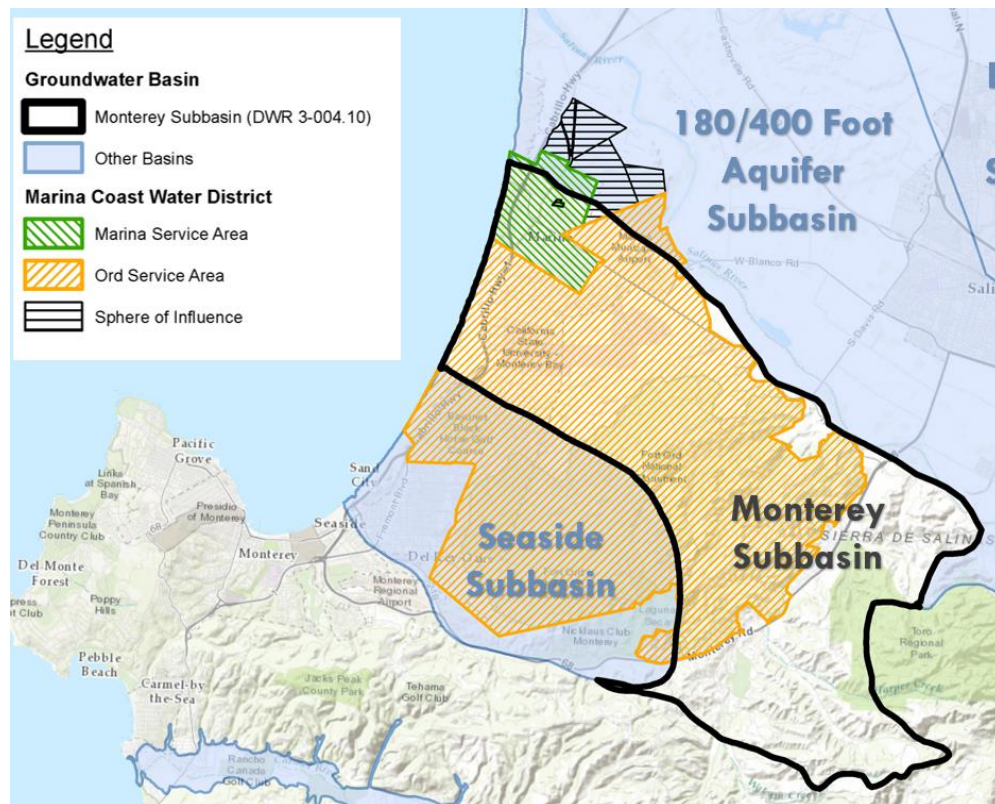
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## Public/Private Water Conservation Events and Outreach

- 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 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,

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maintaining and improving infrastructure, and fulfilling its obligation to provide safe drinking water at affordable rates.

This past year, MCWD hired EKI as its Groundwater Sustainability Agency (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 GSP:

Phase I (2017 – early 2018)	Phase II (2018 – 2019)
<p><b>Governance/Coordination</b></p> <ul style="list-style-type: none"> <li>Identify key GSP components for Prop 1 grant application</li> </ul>	<p><b>Governance/Coordination</b></p> <ul style="list-style-type: none"> <li>Present results of preliminary basin analysis to Monterey GSAs</li> <li>Coordinate with Monterey Subbasin GSAs to ensure no conflict between assumptions and estimates of projected values of the major components of interaction</li> </ul>
<p><b>Technical Implementation</b></p> <ul style="list-style-type: none"> <li>Draft and submit Proposition 1 application</li> <li>Compile existing data for input into Data Management System (DMS)</li> <li>Identify key data gaps</li> </ul>	<p><b>Technical Implementation</b></p> <ul style="list-style-type: none"> <li>Fill identified data gaps</li> <li>Develop draft Hydrogeologic Conceptual Model (HCM) and Groundwater Conditions</li> <li>Develop Water Budget</li> <li>Develop Numerical Model</li> <li>Develop Monitoring Network</li> </ul>
<p><b>Stakeholder Engagement</b></p> <ul style="list-style-type: none"> <li>Develop local stakeholder engagement plan</li> <li>Hold public meetings/workshops to present SGMA compliance plan, request information for data gap filling purposes, and to receive feedback on local funding mechanisms plan</li> </ul>	<p><b>Stakeholder Engagement</b></p> <ul style="list-style-type: none"> <li>Hold public meetings/workshops to communicate GSP development progress to stakeholders and receive feedback on Basin Characterization tasks</li> <li>Outreach to disadvantaged communities</li> </ul>
Phase III (2020 – early 2021)	Phase IV (2021 - 2022)
<p><b>Governance/Coordination</b></p> <ul style="list-style-type: none"> <li>Develop Interbasin Agreements, as necessary</li> </ul>	<p><b>Governance/Coordination</b></p> <ul style="list-style-type: none"> <li>Participate in interbasin coordination efforts</li> <li>Submit GSP to DWR</li> </ul>
<p><b>Technical Implementation</b></p> <ul style="list-style-type: none"> <li>Finalize Management Areas</li> <li>Define Undesirable Results</li> <li>Define Sustainability Goal</li> <li>Define Minimum Thresholds</li> <li>Define Measurable Objectives</li> <li>Identify Projects and Management Actions</li> </ul>	<p><b>Technical Implementation</b></p> <ul style="list-style-type: none"> <li>Develop draft GSP</li> <li>Finalize and submit GSP</li> </ul>
<p><b>Stakeholder Engagement</b></p> <ul style="list-style-type: none"> <li>Hold public hearing to present and receive feedback on sustainability criteria and proposed projects and management actions</li> </ul>	<p><b>Stakeholder Engagement</b></p> <ul style="list-style-type: none"> <li>Hold public meeting(s)/workshop(s) to receive feedback on draft GSP</li> </ul>



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### **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 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, FORA, M1W Water Augmentation Agreement (MOU)**

In 1998, MCWD entered the “Water/Wastewater Facilities Agreement’ with the Fort Ord Reuse Authority (FORA) to acquire, construct, operate and furnish facilities to support the Base Reuse Plan recovery program. As part of this plan, FORA determined that the redevelopment of the Ford Ord Community required additional facilities capable of delivering 2,400 acre-feet per year of water in addition to the 6,600 AFY of groundwater transferred to MCWD from the Army in 2001.

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

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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. The RUWAP will serve both the MCWD Water Augmentation Program and Pure Water Monterey, as MCWD and Monterey One Water work together to build one ten-mile long transmission pipeline. The District has been coordinating funding and construction of this important milestone with the Fort Ord Reuse Authority (FORA) and Monterey One Water.

At final buildout, the RUWAP will provide 1,427 acre-feet per year (465 million gallons per year) of water from sources other than groundwater within the District and up to 3,700 acre-feet of Pure Water to the Monterey Peninsula. Within phase 1 of the project the pipeline will deliver 600 acre-feet of advance treated water to MCWD customers in Marina and the Ord Community. This water will be suitable for injection into the Seaside Groundwater Basin and may be used for urban landscape irrigation reducing our reliance on groundwater.

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

Funding for the RUWAP is through State Revolving Grants and Loans and Capital Contributions from FORA. MCWD's total cost share is \$10,513,217 for the treatment and transmission facilities and \$11,439,582 for the Distribution facilities (\$21,952,745 total RUWAP). Of those amounts, \$7,294,568 are grant funds, so the amount MCWD needs to pay back via loans to the State before applying other funds from FORA is \$14,658,177. Through an agreement with FORA, they will provide up to \$6 million for the project (\$4.3 is firm commitment, the rest is depending on if FORA has the funds). Based on the firm commitment amount from FORA, MCWD's loan for the entire project is \$10,358,177 (will be \$8,628,177 if FORA has the funds they anticipate to provide the full \$6m). That loan is at a rate of 1.8%. Payments on the loan to the State begin when the project is operational.

Funding for this 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.

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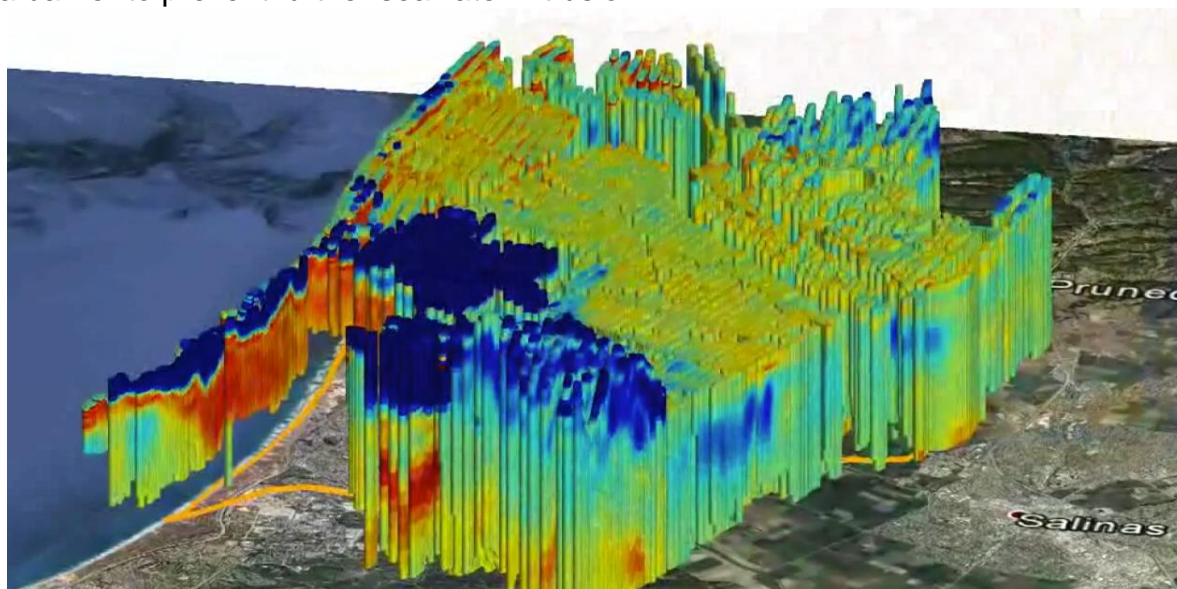


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### Stanford University Study and the Impact on the Proposed Desalination Plant

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 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 maps indicating that it was 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, right at the location of the existing barrier protecting the basin. Considering MCWD pumps just over 3,300 acre-feet per year, from wells much further inland to serve its current customers, the amount pumped from the desal plant is massive 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 Marina's water. Cal Am received permission from the California Coastal Commission to operate a test slant well. The test well intake is located in the same basin where the Stanford research revealed groundwater that is suitable as a source of drinking water. Data consistently show that the test slant well is drawing usable water from Marina's basin.

Properly situated, desal can be considered a viable option as costs to produce an acre foot of desalinated water are coming down. However, the proposed Cal Am desalination plant must be carefully evaluated to protect our groundwater. The Stanford Study has confirmed the quality of water in the basin, and the basin must be protected and carefully managed to prevent saltwater intrusion.

## 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.*

### **Meet Your New Operations Manager, Derek Cray**

In the past year, 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 site inspections, develop preventative 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.

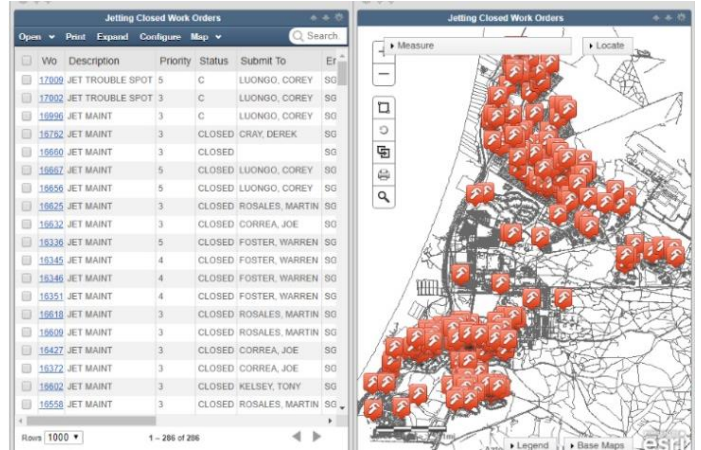
The following describes the water and sewer systems that the District is responsible to operate and maintain that will benefit from the upgraded CMMS:

- 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)

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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):

Observation	Result	Instruction	Explanation
Date:	10/22/2018		
Is the site secure?	Yes		
Is the well currently running?	Yes		
Oiler, how many drips per minute?	24	Oiler should be at approximately 20 drips a minute.	
Excessive Motor heat or vibration?	No		
Is Packing or Mechanical Seal leaking excessively?	No		
Topped off oil reservoir?	Yes		
Is the well motor oil level full?	Yes		
Flow meter GPM reading:	2022		
Flow meter totalizer reading:	1412761	Include Picture of Well Flow Meter.	
Well hour meter reading:	53140.4		
Electrical meter reading:	38235		
Any MCC faults or warning lights on?	No		
Does well chlorinate?	Yes		
Any leaks on the chlorine system?	No		
Chlorine flow meter totalizer:	40194	Include Picture of Chlorine Flow Meter.	
Current chlorine tank level:	92	Write number that is displayed on the HMI.	
Chlorine analyzer residual (ppm):	.80		

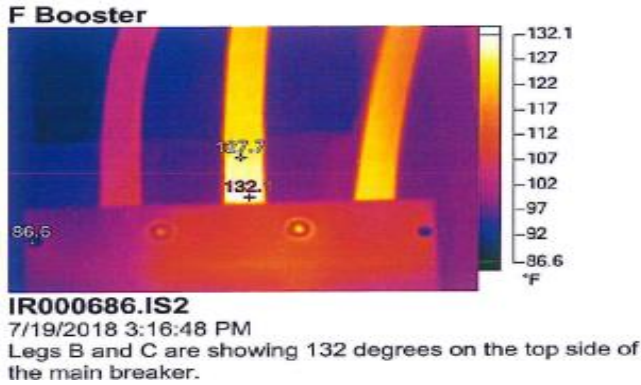


## Motor Control Center Thermography Program

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 have since been repaired to prevent potential system failures.

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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:

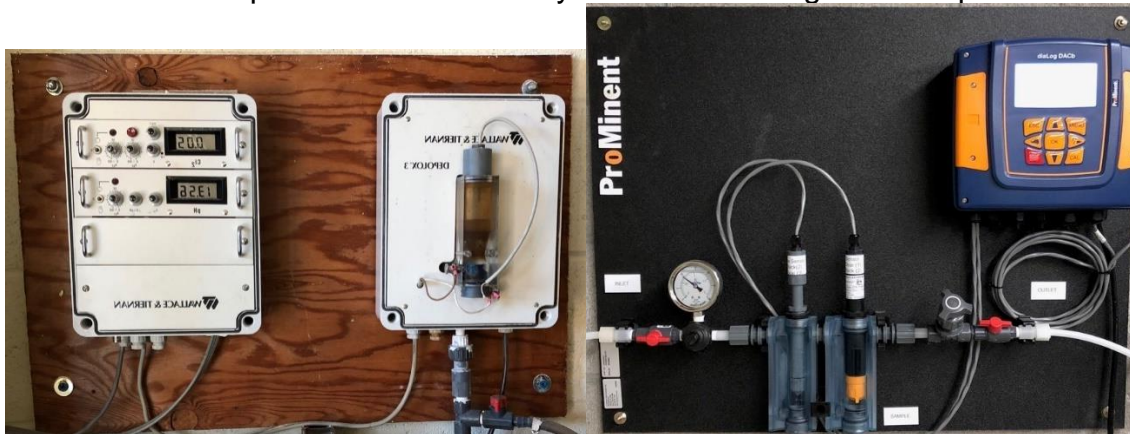


## Replacement of Water Quality Analyzers

In the past year, MCWD replaced aging chlorine analyzers with a more robust, membrane analyzer, delivering more accurate results and requiring less maintenance. Also installed are new conductivity analyzers which will allow staff to monitor the aquifer more closely. These analyzers are hooked 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.

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



## SCADA Historian Server Installation

The District installed a new Historian Server for its SCADA telemetry system. This server and associated software allow staff to historically look up data 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:



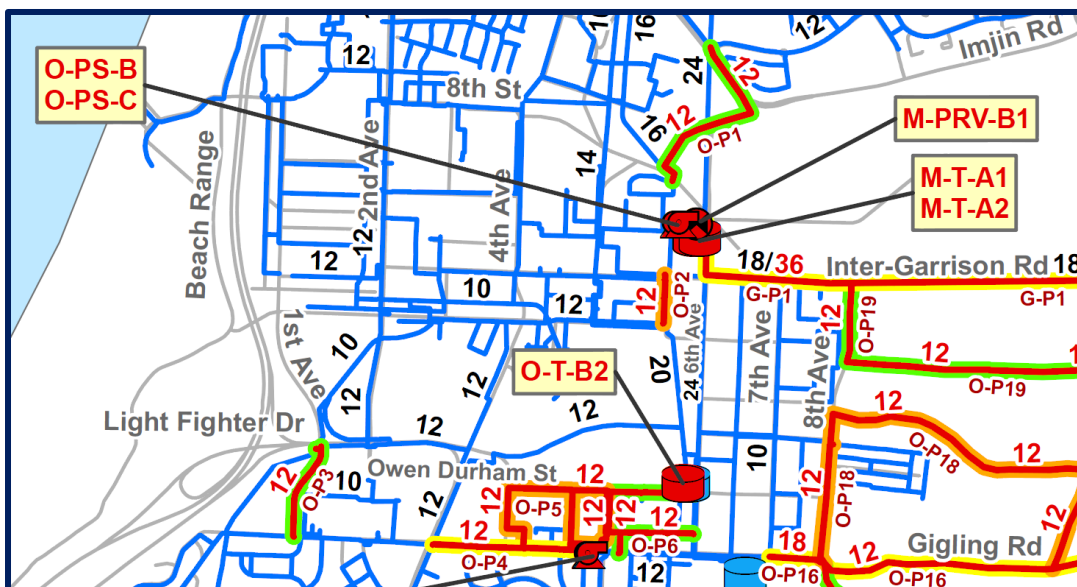
## Water/Sewer Master Plans

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



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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 are expected to be completed December 2018 and the Capacity Fee Study by February 2019.



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## 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. Below is a picture of staff installing a residential meter for the project:



## 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.*

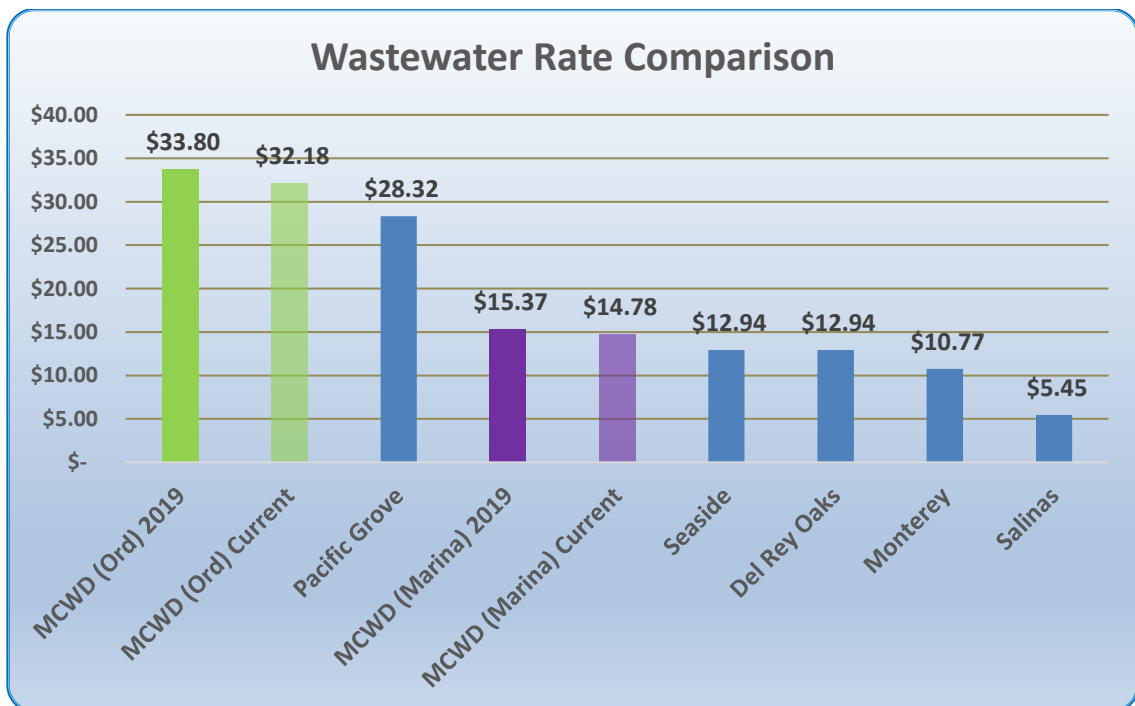
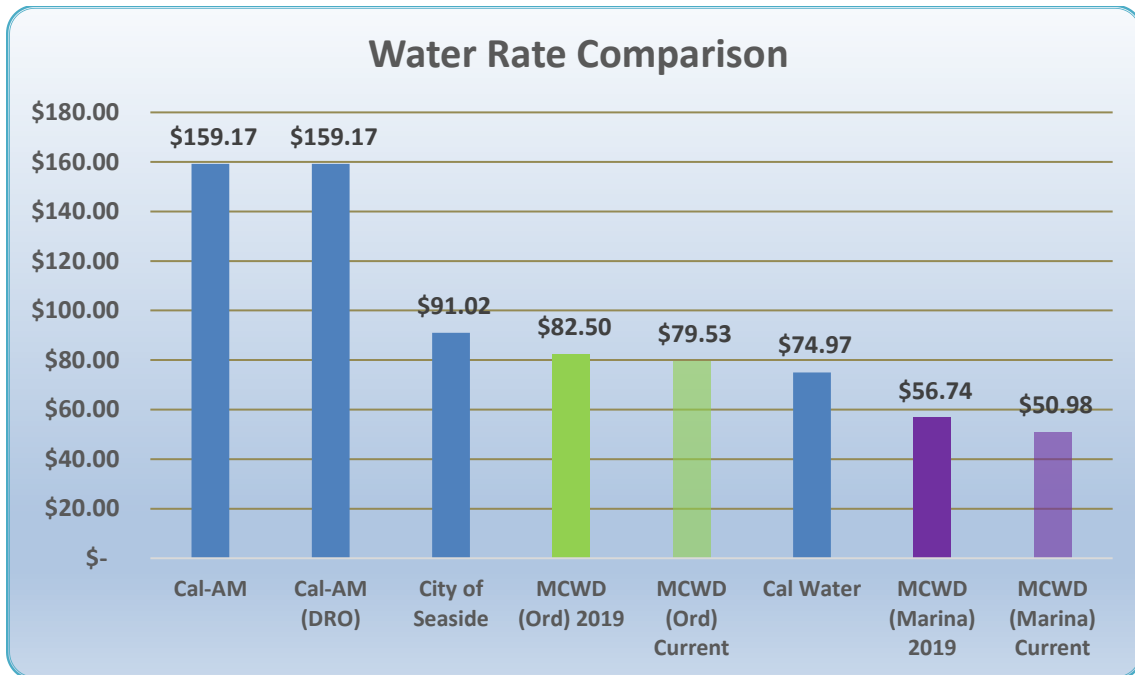
### Rate Study

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 reserves and a rainy day fund.

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 Year In Review

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 for a few reasons; 1) the aged system, inherited from the Army, is large and has substantial operating and maintenance costs, and 2) these costs are spread over a small 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. The following charts show how MCWD's water and wastewater rates compare to others in the region:



# MCWD Year In Review

## 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 through Proposition 1.

Funding	Purpose	Total Funding	SRF Loan 1.8%	Prop 1 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
<b>Totals</b>		<b>\$23m</b>	<b>\$11m</b>	<b>\$3.7m</b>	<b>\$8.3m</b>
		Total Loan Funding	\$14.7m	\$11m	\$3.7m
		Total Grant Funding	\$8.3m		\$8.3m
<b>Totals</b>		<b>\$23m</b>	<b>\$11m</b>	<b>\$3.7m</b>	<b>\$8.3m</b>
		<b>100%</b>	<b>48%</b>	<b>16%</b>	<b>36%</b>

## 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.



### 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.*

#### **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 grow in its use of social media to communicate with our customers and community over the past year. 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 at events and throughout the district, as well as tips on water conservation.

Through these social media communications, MCWD is generating more than 5,000 impressions and 100 engagements organically on a monthly basis.

#### **News & Outreach – Protecting Our Water From Cal Am!**

Communicating 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 about Cal Am impacting our water supply 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

## MCWD Year In Review

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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 the State Water Resources Control Board, the Central Coast Regional Board, the State Lands Commission, and others to continue to ensure the drinking water supply is protected. These meetings were held to address the need to protect the basin from the saltwater intrusion that is expected to occur once the proposed Cal Am desalination plant is allowed to move forward. Also, to address the fact that Cal Am does not have water rights to extract groundwater from the critically over drafted Salinas Valley Groundwater Basin as a supply source for their 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. The progress made in the past year is expected to carry through this year as we strive to complete a Service Agreement between CSUMB and MCWD.

## **5.0 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.*

# MCWD Year In Review

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## **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

# MCWD Year In Review

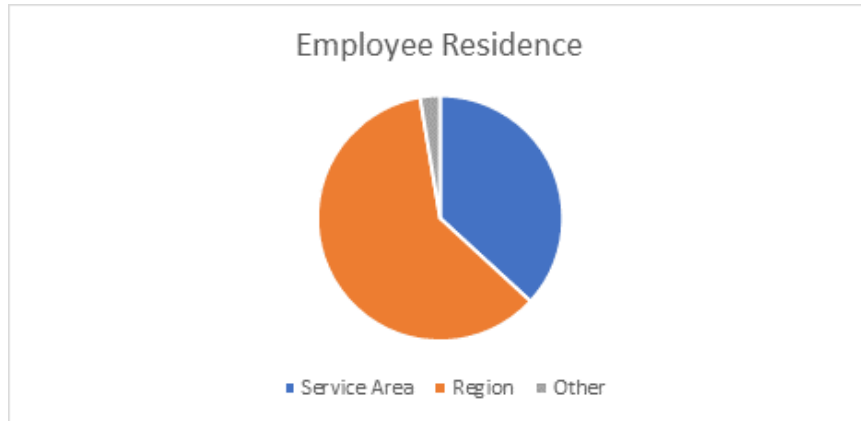
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classifications against local, regional, and statewide markets and comparable employers; and provided recommendations for adjustments.

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. As shown below, 14 of MCWD's 38 employees live in the District service area and 37 of 38 employees live in the Monterey Bay region:



## 6.0 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 better customer service, provide better innovations, better 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.



## MCWD Year In Review

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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 has provided water service and wastewater collection systems to the Ord Community since 1997, when the US Army transferred over the property. The Fort Ord Reuse Authority (FORA) assessed regional water districts 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. That's why MCWD has pursued the annexation of 8,869 acres of the Ord Community. Our primary intent with this proposal is to include this community and provide direct representation to all customers we currently serve.

Over the years we've made significant investment in the Ord Community in the form of infrastructure, addition of staff and equipment, adoption of redevelopment standards and procedures, and the preparation of master plans and water supply project studies. Annexation is the next logical step.

Out of an abundance of caution, MCWD conducted a review of any potential consequences (an Initial Study/Negative Declaration) associated with the annexation project. This study was not required by California Environmental Quality Act (CEQA), but we chose to proceed due to a sincere desire to consider any comments and potential concerns of community members and other interested parties. The draft study was circulated for public review and comment over a 30-day period ending on January 19, 2018, which was followed by a public hearing. The MCWD Board heard comments from the public and testimony from staff, yet no new information or evidence emerged to indicate significant environmental effects beyond that previously analyzed in previous environmental documents.

In September, we approved an agreement with LandWatch and Keep Fort Ord Wild (KFOW) to annex fewer land parcels and exclude, as previously planned, the protected open spaces of the former Fort Ord and the Ord National Monument, State Parks and areas reserved for open space by cities and the County. For many months, MCWD worked with LandWatch and KFOW to amicably resolve their concerns and to file a modified Ord Community Sphere of Influence Amendment and Annexation application with LAFCO. The modified application will not require additional environmental review

## MCWD Year In Review

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and is exempt from CEQA under CEQA Guidelines. MCWD staff will also consult with LAFCO to determine how to address the reduction in the number of parcels to be annexed. MCWD has submitted an application and is working towards a public hearing in early 2019 with a target to complete the annexation in the summer of 2019.

MCWD's current jurisdictional boundary encompasses 3.2 square miles, and its sphere of influence encompasses an addition 2.4 square miles.

We're also working with the Local Agency Formation Organization (LAFCO) to expand MCWD's Sphere of Influence and legal boundary to include the Ord Community. During the annexation process, MCWD will work with LAFCO to ensure proper governance is applied. Additional care will be taken to ensure that existing cost centers remain separate so that the City of Marina and the Ord Community remain independent divisions, supporting their individual infrastructure needs.

### **Service Agreements for Post FORA**

MCWD is preparing for the completion of FORA's work in ensuring the water and wastewater service to the Ord Community is in place as envisioned by the Fort Ord Base Reuse Plan. MCWD has engaged various Fort Ord Land Use Jurisdictions to get input and stimulate discussions on elements that would need to be included in a water and wastewater service agreement and to create a final draft that can be used as a part of FORA's transition documents and transfer discussions.

Currently the draft discussions include preserving current water and recycled water allocations, processes for annexing territory into MCWD, processes for development of water sources, and processes for ensuring ongoing coordination. There remains uncertainty on whether FORA will be extended beyond their 2020 statutory deadline, but whether they are extended or not, these service agreements should provide the foundation for service going forward under MCWD.

# MCWD Year In Review

## 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 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
<b>1.0 Water Sources</b>		
<p>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 find the most efficient, and to secure cost effective water source portfolio.</p>		
1.1	Work with local land use jurisdictions to clearly establish and determine current and future water use.	<ul style="list-style-type: none"> <li>• Groundwater Sustainability Plan Development</li> <li>• MCWD, FORA, M1W Three Party Augmentation Agreement</li> <li>• Construct RUWAP</li> <li>• Stanford Study</li> <li>• Hire New Water Resources Manager</li> <li>• Water Conservation Commission Improvements</li> <li>• Water Conservation Programs</li> <li>• Replacement of Water Quality Analyzers (to track aquifer water quality)</li> </ul>
1.2	Establish the difference between available groundwater and ultimate water demands.	
1.3	Determine the growth rate or timeline of when additional water sources will be needed.	
1.4	Establish a prioritized list of available alternative water sources.	
1.5	Develop an alternative water sources work plan that will carry us from conception to development.	
1.6	Establish goals and objectives that promote protecting our current groundwater source from seawater intrusion and other forms of contamination.	
1.7	Review and update our water conservation program.	

# MCWD Year In Review

<b>2.0 Infrastructure</b>		
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.	<ul style="list-style-type: none"> <li>• Upgraded Computerized Maintenance Management System</li> <li>• Hire New Operations and Maintenance Manager</li> <li>• Implement New Motor Control Center Thermography Program</li> <li>• Perform Water Treatment Enhancements</li> <li>• Implement new water quality analyzers and SCADA Historian</li> <li>• Complete Monterey Bay Military Housing Meter Installation Project</li> <li>• Develop Water and Sewer Master Plans</li> <li>• Hire New Information Technology Administrator</li> <li>• RUWAP</li> <li>• Completed Water Loss Audit in 2018 (for water use through 2017)</li> </ul>
2.2	Develop an office/corporation yard facilities master plan.	
2.3	Develop and implement an asset management plan.	
2.4	Continue the development of District's geographic information system	
2.5	Continue the development of the CMMS System.	
2.6	Leak audit and detection.	

# MCWD Year In Review

<b>3.0 Fiscal Planning</b>		
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.	<ul style="list-style-type: none"> <li>• Achieved Comprehensive Annual Financial Report Award</li> <li>• Completed Rate Study</li> <li>• Obtained SRF grants, DWR grants, and SRF low interest Loans</li> </ul>
3.2	Regular financial updates to policymakers and managers.	
3.3	Best accounting practices.	
3.4	Close and audit financial statements in a timely manner.	
3.5	Obtain the Certificate of Achievement in Financial Reporting annually from the Government Finance Officers Association.	
3.6	Fiscal reserves management for the maintenance/ replacement/ expansion of the District's infrastructure.	
<b>4.0 Strategic Partners and Public Affairs</b>		
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	<ul style="list-style-type: none"> <li>• Groundwater Sustainability Coordination Agreements</li> <li>• CSUMB Easement Agreement</li> <li>• MCWD, FORA, M1W Three Party Augmentation Agreement</li> <li>• Meetings with Regional Board, State Water Resources</li> </ul>
4.2	Develop a Strategic Communications Plan and Communicate with our strategic partners.	

## MCWD Year In Review

4.2	Adopt a plan for technology use in public affairs.	<p>Control Board, and State Lands Commission</p> <ul style="list-style-type: none"> <li>• RUWAP</li> <li>• Social Media Presence and New Releases</li> <li>• Stanford Study</li> </ul>
4.3	Establish clear standards for the construction process.	<ul style="list-style-type: none"> <li>• Hire New Water Resources Manager to serve as liaison to regional water supply meetings</li> <li>• Monterey Bay Military Housing Meter Project</li> </ul>

### 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.	<ul style="list-style-type: none"> <li>• New Human Resources/Risk Administrator</li> <li>• New Information Technology Administrator</li> <li>• New Operations and Maintenance Manager</li> <li>• New Water Resources Manager</li> <li>• Completed Compensation Study</li> <li>• Implemented new Programs for Staff Development</li> </ul>
5.2	Establish a workforce succession plan.	
5.3	Develop a knowledge transfer program.	
5.4	Conduct periodic compensation studies.	
5.5	Revise and update Employee Handbook	
5.6	Establish and develop an employee professional development plan.	
5.7	Revise employee performance evaluations	

# MCWD Year In Review

## 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	<ul style="list-style-type: none"> <li>• Submitted LAFCO Annexation Application for the Ord Community</li> <li>• New Information Technology Administrator</li> <li>• Upgraded Computerized Maintenance Management System</li> <li>• Implement SCADA historian</li> </ul>
6.2	Routinely review policies and procedures.	
6.3	Encourage Board development.	
6.4	Conduct new Board member orientation program.	
6.5	Digitize district records.	
6.6	Achieve the District of Transparency	
6.7	Incorporate appropriate technology into the District's daily functions.	
6.8	Update strategic plan annually.	