

2016-2017

YEAR IN REVIEW

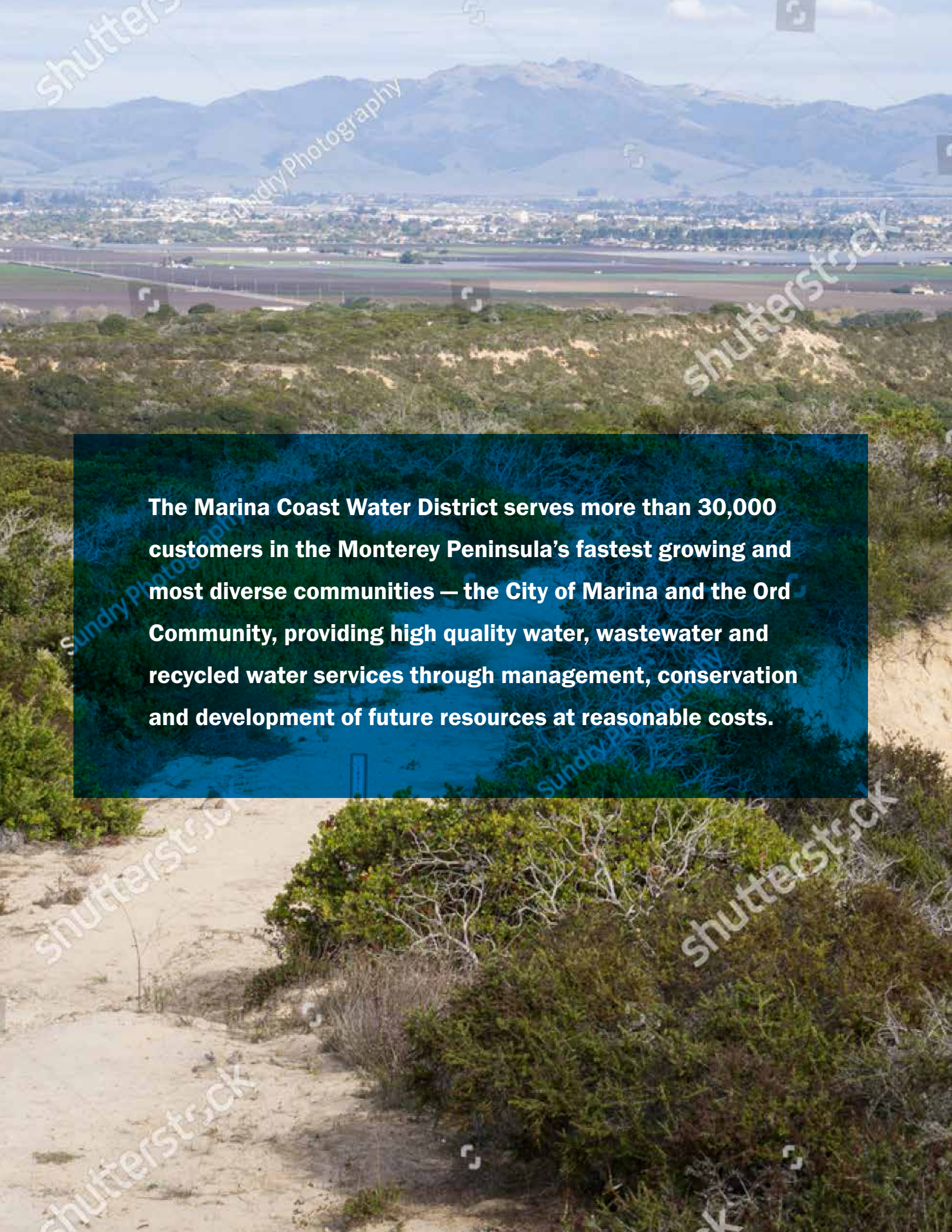




MARINA COAST WATER DISTRICT

2016–2017 Year in Review

July 1, 2016 to June 30, 2017



The Marina Coast Water District serves more than 30,000 customers in the Monterey Peninsula's fastest growing and most diverse communities — the City of Marina and the Ord Community, providing high quality water, wastewater and recycled water services through management, conservation and development of future resources at reasonable costs.

TO OUR CUSTOMERS,

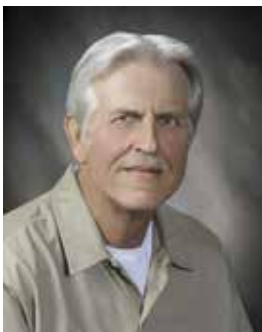
On behalf of the Marina Coast Water District, we are pleased to present our very first Year in Review. We share this with you as part of our ongoing commitment to communication, transparency and collaboration with our community. Together, we are accomplishing great things as we strive to achieve critical 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. We were honored to review the results of our 2016 Customer Satisfaction Survey, revealing that our customers have an overwhelmingly favorable opinion of the Marina Coast Water District.

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, and will continue our vigilance to maintain the quality of the basins that supply your water.

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

Sincerely,



A handwritten signature in blue ink, appearing to read "Howard Gustafson".

Howard Gustafson
President, MCWD Board of Directors



A handwritten signature in blue ink, appearing to read "Keith Van Der Maaten".

Keith Van Der Maaten
General Manager, Marina Coast Water District

1960	1970	1991– today	1992– 1997	1993	1994
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

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 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.

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. Seawater was intruding because more water was being pumped out than was being replenished naturally. So in 1983 we turned to another source, drilling three deep wells into the 900-foot aquifer. This continues to serve as the primary water source for Marina.

1997	2001	2005	2006/ 2007	2012/ 2015	2017
<p>Operation of desalination plant</p> <p>Closure of Fort Ord Military base</p>	<p>Transfer of water services from U.S. Army Fort Ord Military base to MCWD</p>	<p>Inter-connected the Marina and Ord Water Systems, giving Ord access to the deep aquifer wells and Marina access to the water storage tanks</p>	<p>Began service to Seaside Highlands and Dunes commercial businesses</p> <p>Marina and Ord water systems permits combined</p>	<p>Began service to East Garrison and Dunes Homes</p>	<p>Began service to Sea Haven Homes</p>

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.

OUR FUTURE: WATER SUPPLY

Regional Urban Water Augmentation Project (RUWAP)

In our ongoing quest to develop new water supplies, we are in the process of building a massive recycled water transmission and distribution system. The Regional Urban Water Augmentation Project (RUWAP) will serve both the MCWD Water Augmentation Program and Pure Water Monterey, in which the transmission pipeline will span ten miles. We are coordinating funding and construction of this important milestone with the FORA and the Monterey One Water.

The RUWAP will provide 1,427 acre feet 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. The pipeline will initially deliver 600 acre feet of advanced 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.

Estimated at \$28 million, MCWD has applied for \$22 million in state low-interest loans and grant funding, with an additional \$6 million to come from the Fort Ord Reuse Authority. Construction is set to begin in Fall 2017 and is on track to deliver advanced treated water to existing and planned urban irrigation facilities starting in May 2019.

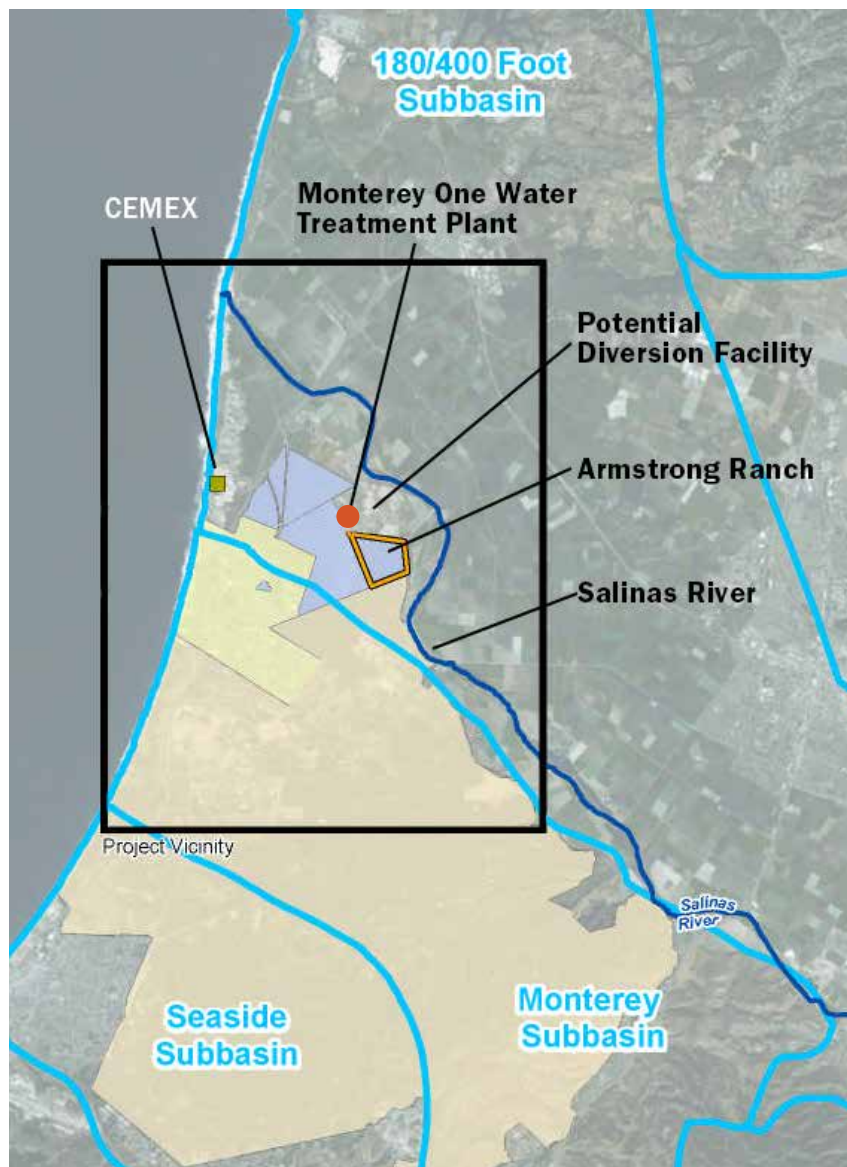
Since it was approved in 2015, we have completed the engineering, design and construction of some sections of the pipeline. We also have approved plans to build a storage reservoir and distribution pipes to deliver advanced treated water to existing and planned urban irrigation facilities.



Armstrong Ranch Groundwater Recharge Project

Facing a potential water supply shortfall by 2040, MCWD is investing in projects like RUWAP and is proactively investigating additional new supplies. One of the leading options we're exploring is a potential groundwater recharge opportunity at the Armstrong Ranch, located just south of the Salinas River. Data reveals that groundwater from the Dune Sand Aquifer is providing a freshwater source that is replenishing the 180 Foot Aquifer and mitigating sea water intrusion.

These findings are incredibly promising and may provide a viable new water supply. If it is feasible to pursue this project, the addition of high-quality water to the aquifer system could further prevent saltwater intrusion and add water to the basin.



Due to the potential of this site, it is imperative that we carefully review the projected impacts of the proposed Monterey Peninsula Water Supply Project, also known as the desalination plant. A recharge project at Armstrong Ranch would depend on the integrity of the Dune Sand Aquifer system that has supported the development of freshwater sources. Our concern is that the desalination plant, located directly west of the Armstrong Ranch, may disrupt the equilibrium of the system and impact our ability to conduct an effective recharge project in that area.

OUR RIGHTS: PROTECTING GROUNDWATER

Groundwater Sustainability Agency (GSA)

As we develop new water supplies for the future, we must also protect them. In 2015, The California Department of Water Resources granted MCWD exclusive GSA status over the service area within the Monterey Subbasin and the 180/400 Subbasin. Becoming an exclusive GSA is part of our ongoing commitment to protecting our customers, allowing us to defend our groundwater rights, maintain and improve infrastructure and fulfill our obligation to provide safe drinking water at affordable rates. While other groups and agencies have done studies focusing mainly on agricultural or other purposes, MCWD has invested in research of the region's hydrogeology to better monitor and manage groundwater for the Marina and Ord communities.

As the GSA, we will develop Groundwater Sustainability Plans for both subbasins, in coordination with the other GSAs. We will create an open and inclusive process to gather input from all stakeholders and obtain necessary technical advice regarding groundwater sustainability issues. We are also working on a Coordination Agreement with other GSAs in the region to recognize

our common mission and describe how efforts can best be communicated, coordinated and facilitated as each GSA moves forward with development of groundwater sustainability plans.

Under these GSA efforts, MCWD remains committed to ongoing research, investment in infrastructure and serving as regional leaders along with key partners to study and identify realistic solutions that are highlighted in this annual report, such as the Armstrong Ranch Groundwater Recharge Project and the Regional Urban Water Augmentation Project. These projects hold great potential to produce added supplies at a far more affordable price-per-acre-foot compared to other proposals in the region.

The Salinas Valley Basin Groundwater Sustainability Agency, a newly formed organization heavily influenced by agricultural interests, filed an overlapping GSA application with DWR to block the District's Ord service area GSA. MCWD will continue to defend our rights to manage groundwater within our service areas and to protect our customers from outside interests.

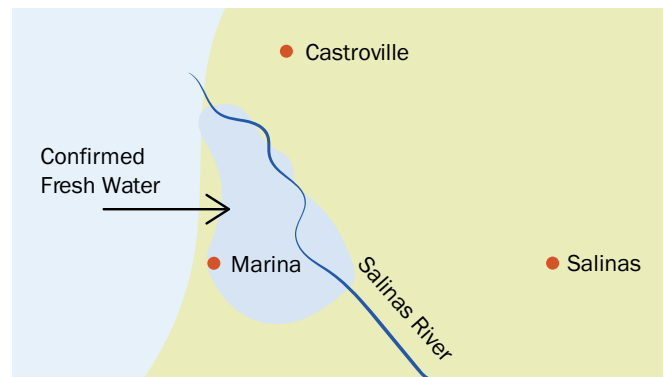


Stanford University Study by Dr. Rosemary Knight

Since we were founded, MCWD has been committed to research and innovation to manage our precious groundwater, to prevent further saltwater intrusion and develop methods to more accurately predict the potential outcomes of proposed projects and actions in the region. The Stanford University Study is part of this ongoing commitment, and provided us with a major breakthrough to achieve these goals. The study revealed new freshwater sources in the basins, pointing to the need to protect them under our GSA.

The study confirmed the presence of freshwater in and around the Marina and Ord service areas

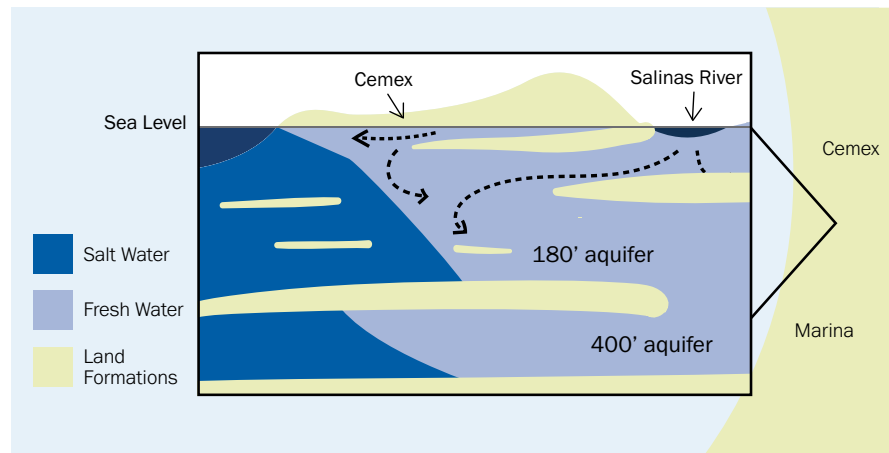
MCWD partnered with Stanford University and Dr. Rosemary Knight to use advanced geophysics to map and further understand the complex hydrogeology in the groundwater basin. In the first stage, researchers used an imaging technique called Electrical Resistivity Tomography (ERT) to map the salinity of groundwater in a 25-mile stretch of the Monterey Peninsula. The ERT was taking a picture of the hydrogeology down to 1,000 feet. In the second stage, researchers used airborne electromagnetic (AEM) survey equipment, deploying a helicopter to send electrical impulses 1,000 feet into the ground. This data yielded an extensive 3-D model of the groundwater basin to provide a more thorough level of understanding.



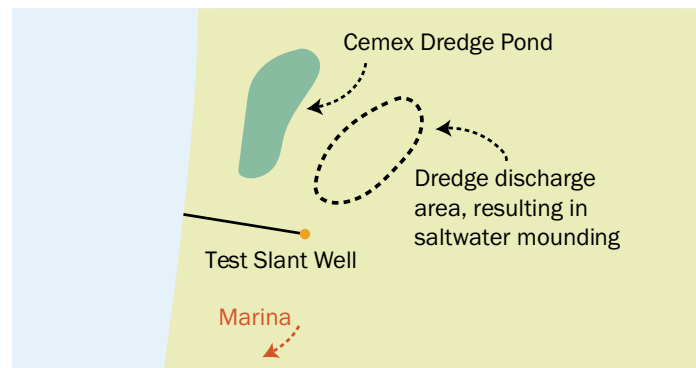
Prior to this critical research, we relied on county maps that are misleading and incomplete in the areas around the Marina and Ord communities. The Stanford University Study provided more accurate mapping and a sound, scientific baseline so that we can move forward with water supply planning and sustainability efforts. The study confirmed the presence of freshwater in and around the Marina and Ord service areas, in both the Dunes and 180 foot shallow aquifers.

Freshwater was also found further inland in the 400 foot aquifer. This significant finding contradicts previous assumptions that all water around the District was severely impaired by saltwater intrusion in all aquifers.

The survey also revealed that the hydrology north and south of the Salinas River is vastly different, especially regarding the interconnection at the Dunes, 180, and 400 foot aquifers. North of the river the Dune Sand Aquifer flows inland and has a geologic barrier (aquatard) underneath it which prevents flow from the Dune Sand into the lower aquifers until well inland. South of the river, the Dune Sand Aquifer flows toward the ocean and also flows into and recharges the lower aquifers, keeping seawater at bay in the area south of the river.



The third significant finding involves a major flaw with the test slant well, which is part of the proposed CalAM desalination plant. The Stanford Study confirmed that dredge pond operations at Cemex are mounding seawater, and due to this mounding, results from the test slant well are biased. The test slant well data is a flawed assessment of the ratio of seawater to freshwater.



With this research, MCWD has confirmed the quality of water in the basin, which must be carefully managed to prevent saltwater intrusion. Future projects – like the proposed CalAM desalination plant – must be carefully evaluated to protect these precious resources. As the Stanford Study reveals, data provided by CalAM in support of its desalination plant is incomplete, and in some cases, flawed.



Monterey Peninsula Water Supply Project – Desalination Plant

MCWD supports all innovation and technology to develop new water supplies, and that includes desalination. The key is that these projects must be done responsibly, with careful consideration and scientifically sound data. They must be evaluated based on the potential impact to the ecosystem, our customers and groundwater supply.

The Monterey Peninsula Water Supply Project, also known as the CalAm desalination plant, raises numerous concerns for MCWD and our customers. We submitted extensive comments on the inadequacies of the Draft Environmental Impact Report (DEIR), which fails to evaluate the plant's impact using the best available information and science. As the Stanford Study revealed, freshwater exists in the basins and can be compromised by this project – a scientific fact that is overlooked in CalAm's DEIR.

The most alarming data was gathered from their own test intake well, which clearly shows it is drawing from Marina Coast Water District groundwater. This is not addressed in the DEIR and neither is mitigation

for Marina. The desalination plant will significantly reduce groundwater supplies and water quality in the Marina area, yet the mitigation plan is to return the groundwater it pumps from Marina's aquifers to Castroville. Returning groundwater north of Salinas River will not mitigate the pumping of groundwater in the Marina area.

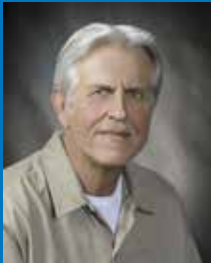
We are also concerned about the size of the proposed desalination plant, which would generate double the amount of water that is needed. CalAm would have a water supply of more than 17,000 acre-feet per year. In 2016, CalAm's customers used 9,285 acre-feet per year. This project will cost our current ratepayers in legal fees, and potential damage to our water supply.

Along with many others, we have called for a new DEIR to present a scientifically sound evaluation of the plant's impacts. We remain committed to an open dialogue as the desalination plant is reviewed, so that we move forward with a solution that represents wise public policy.

LEADERSHIP

MCWD is governed by a five-member Board of Directors elected by the voters. We serve to four-year terms. 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.

2017 Board of Directors



Howard Gustafson
President



Dr. Thomas P. Moore
Vice-President



William "Bill" Lee
Director



Jan Shriner
Director



Herbert Cortez
Director

MCWD Management Team



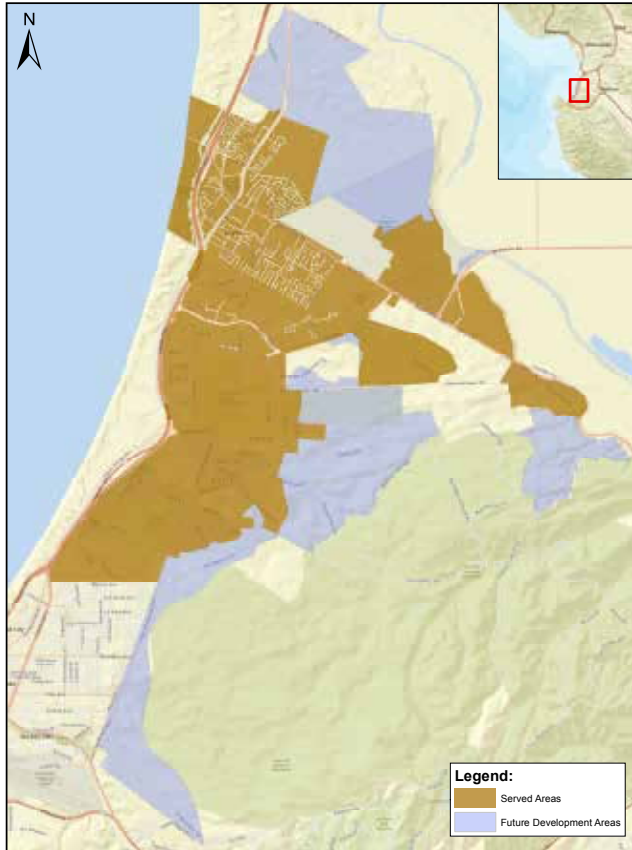
Keith Van Der Maaten
General Manager

Mike Wegley
District Engineer

Jean Premutati
Human Resources/Customer Relations Manager

Vacant
Operations and Maintenance Superintendent

Kelly Cadiente
Director of Administrative Services



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

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

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.