

# Mammoth Community Water District - Year End Report 2020/21

*Water is Our Future*



Founded on August 5, 1957, the Mammoth Community Water District has provided reliable water and wastewater services to our community for over 60 years. MCWD is a California Special District governed by a five-member Board of Directors. The forty person team is kept hard at work maintaining and expanding the water and wastewater systems to meet customers' demands. The District provides surface water from Lake Mary, groundwater from 9 production wells, and in 2020 produced 37,000,000 gallons of recycled water at the wastewater treatment plant to be utilized by Sierra Star and Snowcreek Golf Courses. Infrastructure includes 80 miles of water lines, 75 miles of sewer lines, 3 water treatment plants, and a wastewater treatment facility. Additionally, staff maintain a 1 megawatt solar array to provide clean energy for the energy intensive wastewater treatment process. MCWD's talented staff work in a dynamic and methodical fashion to ensure compliance with regulations and reliable service.



## MISSION STATEMENT

The Mammoth Community Water District is committed to carefully and effectively managing and maintaining our local water resources. We are committed to our customers and the environment in which we live.



# Message from the General Manager, Mark Busby

*As General Manager, it was my pleasure to work with the community and to support the many achievements accomplished by very capable and knowledgeable District staff. Mammoth Community Water District's past fiscal year, April 1, 2020 through March 31, 2021 was filled with many new challenges related to the COVID-19 pandemic as well as many achievements. Within this report, you'll learn about long-term efforts to provide redundancy for the community's groundwater supply, improvements made to our water and wastewater systems, as well as conservation efforts on many fronts. All of these accomplishments were made possible by the support of our Board of Directors, ratepayers, and a very talented District team. I look forward to continuing to build on the positive relationships with staff and our community, working towards common goals. Looking to the future, we will continue to innovate and improve the District's water and wastewater systems while maintaining strategic planning efforts and initiatives that reflect our commitment to delivering the highest quality water and reliable services to our customers for the present and future.*

## MCWD 2020/21 Projects and Programs

Meeting demand and state regulations requires continued development and innovation to the existing infrastructure and operations. Some of the projects and programs implemented in 2020/21 include:



In 2013, ORMAT Geothermal Technologies announced a proposed expansion of the Casa Diablo Plant, just east of MCWD service area. Geothermal waters can have constituents that, in high concentration, make drinking water non-potable/contaminated. Their expansion proposal included well development closer to the groundwater aquifer and the production wells that MCWD utilizes for its water supply to the community.

In response, MCWD began working diligently with ORMAT and other agencies, including the Bureau of Land Management (BLM), Inyo National Forest, USGS, and Great Basin Air Pollution Control District, to develop a Groundwater Monitoring and Response Plan (GMRP). This GMRP is designed to identify any harmful connectivity between the geothermal aquifer and the aquifer utilized by MCWD, prior to any potential negative impacts to the community's water supply.

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In order to properly assess the impacts of the new geothermal wells and increased geothermal production, 3 additional groundwater monitoring wells were deemed necessary. These monitoring wells are strategically located between ORAMT's new well development and MCWD's existing production wells. In January 2021, BLM 2, the first of the monitoring wells, was drilled and monitoring started shortly after; this was a huge milestone in protecting the community's valuable water supply. BLM 2 was drilled by USGS through funding provided by BLM. The two additional planned monitoring wells, BLM 3 and Center Street Well, are scheduled to be drilled in spring 2021; completing the collaborative monitoring program developed to protect the community's water supply.



# System Improvement Projects

## WWTP Backup Power Project

Historically, electricity provided by Southern California Edison (SCE) has been reliable and consistent. Due to this consistency from SCE, the emergency backup generator at the District's wastewater treatment plant was installed solely for short term outages, and was not able to power entire treatment process in the event of an extended outage. In response to recent Public Safety Power Shutoffs (PSPS) and concern for longer term outages, the District modified electrical equipment to allow the emergency generator to provide backup power for the entire plant. This modification allows for full treatment of wastewater while running off the emergency generator.



## WWTP – Solids Dewatering and Disposal

In an effort to find a solution for the scheduled closure of Benton Crossing Landfill (BCL) in 2023, MCWD Operations and Engineering staff successfully implemented the Solids Dewatering and Disposal project. The wastewater treatment process produces sludge, or biosolids, which was historically disposed of at BCL. The first task was to identify a new disposal site to provide a long term solution for dumping of biosolids. Russell Pass Landfill near Fallon, Nevada was selected due to it being the nearest facility to accept MCWD's sludge and the low cost of tipping fees. A local contractor, Chuck Villar Construction, was awarded the contract to haul the biosolids to Russell Pass Landfill. The cost to dispose of biosolids is based on weight. Due to the District's aging sludge dewatering system, MCWD staff determined newer technology, a PW Tech screw-press, would reduce costs by lowering the amount of water in the biosolids produced at the WWTP. Late in 2020, staff completed the screw-press upgrade, which has resulted in fewer trips to the landfill. The annual savings for hauling and dumping is expected to be \$110,160 per year. MCWD O&M is expecting to save approximately \$141,361 in 2021 and subsequent years compared to 2020 as a result of completing this project.





# Projects - Service Reliability



## Well 32

Due to unpredictable surface water availability (snowpack) and aging groundwater infrastructure, the District has identified a need to improve groundwater resiliency. The District has proactively responded to this need by developing an additional groundwater well, Well 32, in the vicinity of Snowcreek Golf Course and the Ranches at Snowcreek. The drilling of this well proved more difficult than anticipated, but the drilling phase has been completed. Final work will be performed in 2021 to build the required infrastructure and bring the well into service. The finishing touch will be to transform the well site into a water efficient landscape.

## Distribution Line Improvements

In 2020, the District contracted for the slip lining of 5,926 feet of sewer lines and rehabilitation of 20 manholes, which prolongs the life of the sewer infrastructure. Additionally, the District's construction crew replaced 55 aging water service laterals and 124 meter pits, reducing water leaked from our system. To be better prepared for emergencies, one inline valve was added near Snowcreek to allow for easier isolation of the distribution system. The District's commitment to proactive maintenance of the wastewater and water systems is a reflection of its dedication to providing reliable service to the community and protecting the environment.

## Additional Upgrades Completed by District Crew

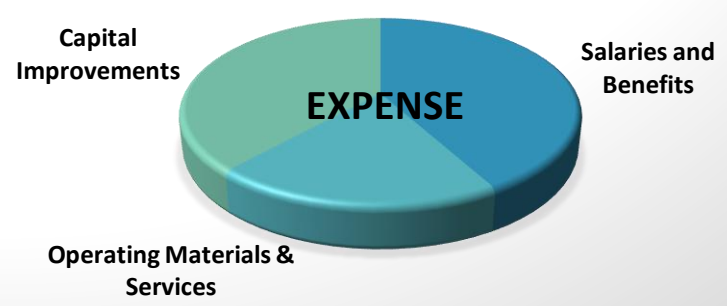
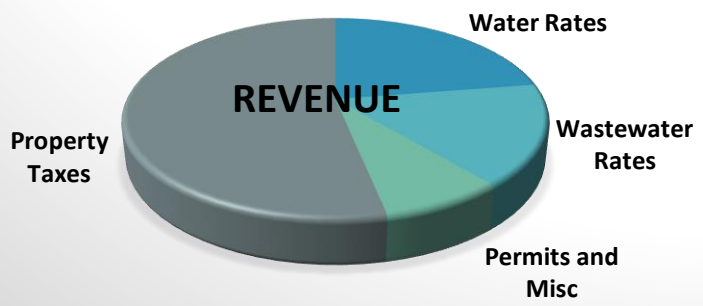
The District has a talented in-house staff able to complete many technical projects. This saves the District money over hiring outside contractors and allows work to be completed on a time frame that works best for overall operations. This year the following projects were completed:

- Secondary Driver replacement (photo on right)
- PLC replacement
- Primary Clarifier rebuild
- Preparation of flooring for WWTP upgrades
- All regular maintenance on District buildings



## District Finances

The District receives sufficient revenue to provide excellent water and wastewater services and to maintain reserve funds for financial resilience and required infrastructure projects.



# Conservation at MCWD

Mammoth Community Water District

## Leak Detection Program

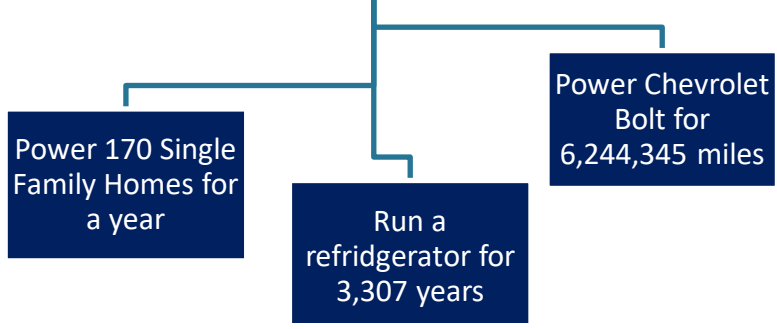
In 2020, MCWD staff alerted 801 customers of leaks on their property. Utilizing the Automated Metering Infrastructure hourly water use data, leaks can be identified prior to customers receiving a high bill, saving water and money.



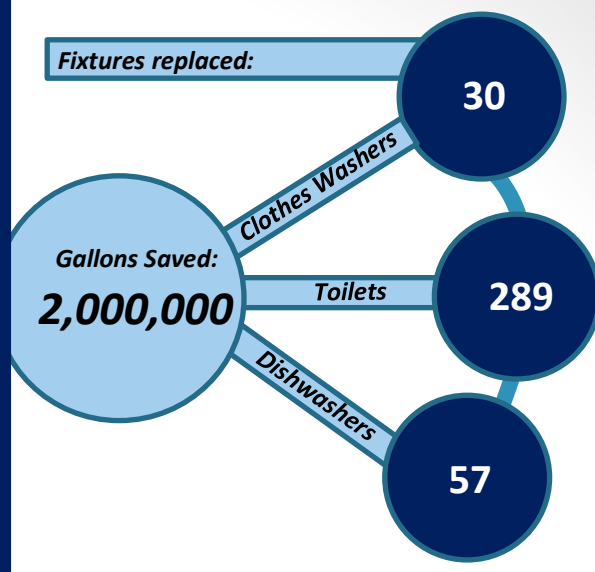
## MCWD Solar Array

MCWD has a 1 megawatt solar array to assist in offsetting the energy demand at the wastewater treatment plant. In 2020:

**1,810,860 kWh of Energy Produced**  
*enough energy to....*



## Rebate Program

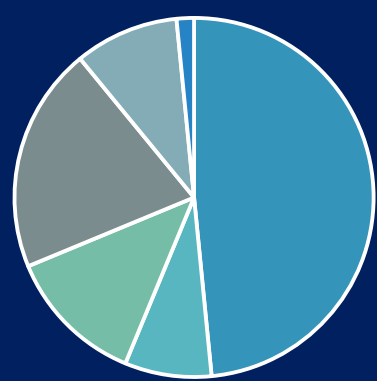


MCWD's generous Rebate Program awarded \$75,000 dollars to incentivize customers to save water by upgrading fixtures.

The following rebates were available:

- \$200 Toilets**
- \$400 Clothes Washers**
- \$200 Dishwashers**

## Community Development 2020



- Permits Issued**
- Remodel/Addition
  - Tenant Improvements
  - New Single Family
  - New Duplex/Triplex
  - New Construction
  - Industrial Improvements

- Large Projects Started in 2020:**
- The Five-Forty Project
  - Mammoth Elementary School Modernization
  - Snowcreek VII, Creekhous Phase 2 & 3
  - Gray Bear 3 (SF Homes with ADU's)
  - Lakeview Townhomes
  - Mammoth Lakes Laundry Annex
  - Obsidian Townhomes Phase 2
  - Swafford Apartments at 325 OMR

Community Development was active in 2020, with 58 permits issued, despite the COVID-19 pandemic. Remodels and Additions had the most permits pulled with 19. Ten new single family residences were started. Community Development is a key part of MCWD's planning to ensure that we remain prepared to supply water to the community's expanding demand.