

2021 ENGINEERING PROJECTS

GENERAL ENGINEERING UPDATE

Magna Water District (MWD) has experienced tremendous growth over the past several years as residential, commercial, and institutional development continues to flourish in the Salt Lake Valley. MWD saw over 1,200 new connections between 2020 and 2021 alone and approved water and sewer service to over 15 developments in 2021. In response MWD continues to construct capital facility projects to accommodate the growth and maintain the current level of service to existing users. In 2021, MWD completed over \$7.0 million dollars in projects including drinking water, sewer collection, and secondary water system upgrades and expansions. For 2022, MWD has several strategic projects planned to repair/replace and expand our systems to meet current and future demands. These projects are funded through a combination of rates, fees, and property taxes.

DRINKING & SECONDARY WATER PROJECTS

4100 South Secondary Waterline (\$560,000):

New 12-inch secondary waterline which will make secondary water available to MWD's upper Zone 3 service area. Approximately 4,600 LF of pipeline was installed including service connections and a jack and bore under 8400 West. This project went smoothly, and the contractor completed the work on time and within budget.



Secondary Reuse Waterline (\$1.58 M):

This 20-inch HDPE pipeline is part of the larger reuse water plan and will serve as a main transmission pipeline bringing reuse water from a future reuse pump station and delivering it to our distribution system throughout the service area. Both the Design Engineer and Contractor had to overcome several obstacles to make this a successful project. The pipeline started on the north side of SR-201 and a casing pipe was installed via jack and bore to the south under SR-201. The bore was over 300 LF and required precise design and construction to avoid gas, storm drain, and sewer utilities.



2021 Waterline Projects (\$3.29 M):

This project was very challenging as it included replacing an existing water line with 3,600 LF of new 8-inch pipe and new construction of 1,800 LF of 12-inch and 1,550 LF of 10-inch secondary water line within 3500 South. It also included 3,500 LF of new 8-inch secondary water line along Montclair St. & Washington Rd. This project was a major milestone for the expansion of the secondary water system. By switching over some of the largest remaining outdoor water users

(3 schools & 3 churches) from drinking water to secondary water for outdoor irrigation, saving an estimated 25 million gallons or 76 acre-ft of drinking water from being used on landscape.





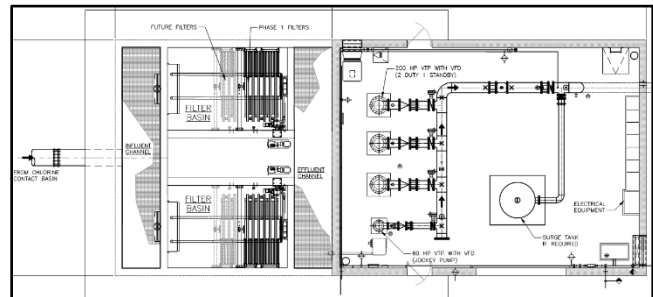
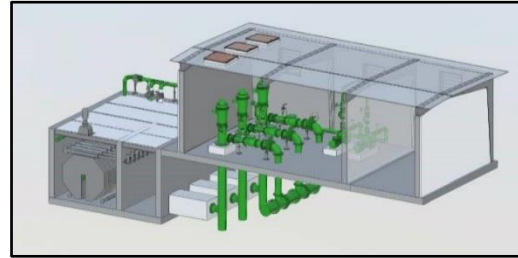
Zone 3 0.75 MG Water Tank:

This water tank was built by the developer with design review and construction inspection by MWD primarily for expansion of MWD's service area west of 8400 W, including the new high school. The tank construction is traditional rebar and concrete. It was mostly constructed through the winter with final completion in early Spring of 2021.

WASTEWATER & REUSE PROJECTS

Wastewater Reuse Project Plan (\$150,000):

The Reuse Project Plan is the first step required by the State for reuse water plan approval. It is a concept plan that lays out the treatment and pumping of reuse water. The plan was completed in August 2021 and the Division of Water Quality provided Approval-in-Concept in November 2021. Next step will be to complete final design on the treatment and pumping for final approval which will be in 2022. MWD plans on hosting an open house in Spring of 2022 to present more information to our customers & answer any questions or concerns about the project. Additionally, this project received a federal grant for \$4.95 M that will help fund the construction.



2021 Sewer Repair Project (\$660,000):

This project replaced and repaired existing sewer mains due to age related issues. It was a difficult project, and most repairs took place with live sewer flows and required by-pass pumping and quick and precise work by the contractor.

Westside Collection Project 1A (\$1.0 M):

This is a 30-inch sewer trunk main which is part of a larger replacement project that will replace approximately 4 miles of aging sewer pipe and provide additional capacity for future development. The project is near completion and the contractor has made good progress considering the large diameter pipe and considerable depth (17-ft) of installation.

