



Water and Sewer Master Plan Update

Upcoming District Water and Sewer System Needs

Project Summary

Magna Water District (MWD) has recently completed a master plan of the facilities used to deliver water and sewer services to its customers. The purpose of a master plan is to identify upcoming improvements needed to maintain quality service to customers and then develop an implementation plan for their completion.

The need for a master plan was motivated by three primary challenges facing MWD:

Challenges



NEW REGULATORY REQUIREMENTS REQUIRE ADDITIONAL TREATMENT PLANT IMPROVEMENTS



INFRASTRUCTURE IN THE DISTRICT IS AGING AND MUST BE REHABILITATED OR REPLACED



ANNEXATION & FUTURE GROWTH WILL RESULT IN ADDITIONAL DEMANDS ON THE SYSTEM

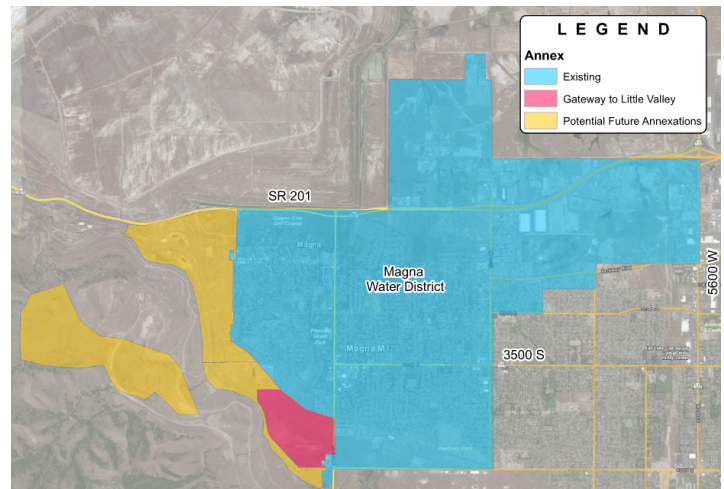
Of specific concern is the addition of new service area through annexation on the western edge of the District. Changes in development patterns associated with higher density housing and increased industrial development also needed to be considered.

Major Findings

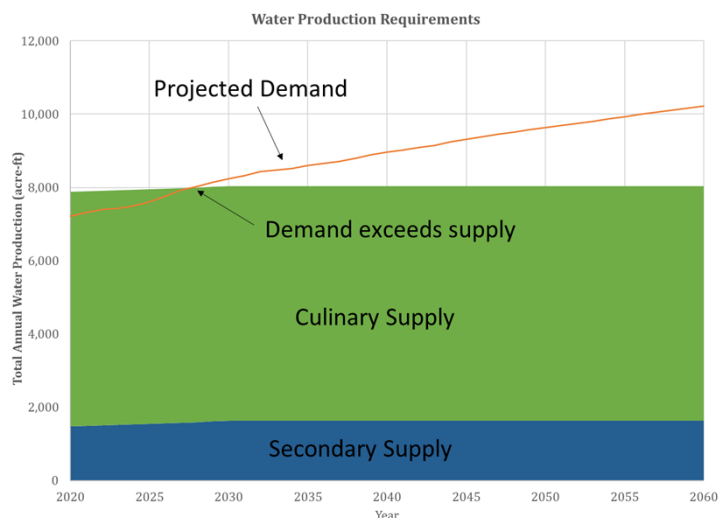
While the analysis indicated that the current performance of the system is very good, there are several areas where improvements are needed:

1. The District's water and sewer treatment plants both have some major upgrades needed in the very near future. Without these improvements, the District will not be able to meet State of Utah treatment requirements.

MWD hired an independent consultant to conduct a technical analysis of how these issues would affect the District. Growth projections, hydraulic models of both the water and sewer systems, and condition assessment data was used to evaluate system performance and project future infrastructure needs.



2. Increased water supply is needed to meet growing demands and to improve reliability for existing customers. This can most cost effectively be done through the development of water reuse and a targeted expansion of the District's secondary water system. Without these, the projected demand will exceed supply by 2027 as shown in the figure below.



3. Many pipelines and manholes are nearing the end of their useful life. Some are over 80 years old. This is especially true in the sewer system where corrosive hydrogen sulfide gas attacks existing pipes over time. Significant additional investment is needed in rehabilitation and replacement of existing infrastructure.



In addition to these three areas, the District will also be expanding the system for future growth and making routine system repairs. The combined impact of these needed improvements represents significant upcoming costs for the District. All projects and their respective cost can be found in the District Water and Sewer Master Plans (www.magnawater.com/water-and-sewer-master-plans) in Tables ES-2 (water) and ES-4 (sewer). The table below shows a summary of the 10-year costs with inflation and percentages paid through user rates or development impact fees.

Utility	Total 10-Year Costs	Percentage of District Portion Paid by Rates	Percentage of Development Portion Paid by Impact Fees
Water	\$48.2 million	21%	79%
Sewer	\$49.7 million	67%	33%
Total	\$97.9 million	44%	56%

Over the next few months, the District will be exploring options for funding the improvements. Additional information will be provided to customers as it becomes available.

How can I learn more?

The final report of the master plan with full results of the analysis is available at the District's website (www.magnawater.com). You can provide input on the master plan and future funding options by submitting a comment via email to info@magnawater.com. Opportunities for comment regarding system improvements and their potential impact on residents will be provided at upcoming Board meetings. Because of COVID 19 and limited seating capacity, virtual attendance is currently required.