

# Rapidly Growing City Increases Potable Water Production While Maintaining Current Budget and Staffing

## RESULTS

- 35% reduction in emergency maintenance
- 28% reduction in scheduled maintenance hours



## APPLICATION

Water purification and distribution system

## CUSTOMER

Water utility in rapidly growing U.S. city

## CHALLENGE

Despite a large growth in demand, equipment approaching end of life, and increasing production costs, the water utility had to maintain a reliable and affordable supply of water to its customers. This meant doing the right maintenance tasks at the right time with the existing resources and budget. Emergency maintenance had to be reduced while expanding the maintenance coverage to new pumping stations.

## SOLUTION

To reduce emergency maintenance, the utility first implemented a predictive maintenance (PdM) program. The PdM program monitors critical equipment to determine machinery health and identify problems prior to failure. By relying on Emerson expertise for the initial program setup, training, and operation; a rapid startup and immediate benefits were achieved. The utility deployed Emerson's AMS™ Suite: Machinery Health™ Manager Software and multiple CSI diagnostics technologies such as vibration and ultrasonic analysis. The reduction of emergency maintenance resulted in increased reliability, reduced repair costs, and fewer scheduling disruptions.

*“We've kept the maintenance costs to produce water the same over the past 4 years, even though our system has grown.”*

Utility Water Director

With emergency maintenance under control, the utility focused on optimizing all scheduled maintenance tasks to free up resources to provide maintenance coverage for new pumping stations. Next, Emerson Asset Optimization Services performed streamlined Reliability Centered Maintenance (RCM) with the utility staff to develop safe and cost effective maintenance practices that assure maximum equipment reliability. Using this process, equipment failure modes were identified, the optimum balance of PdM and preventive maintenance tasks were achieved, and unnecessary or inefficient activities were eliminated.

*“The new program keeps the system under control, which means that people aren’t spending their time fighting fires.”*

Utility Water Director

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