PROJECT:
Horseshoe Bay Water Distribution System Project

LOCATION:
Horseshoe Bay, TX

PRODUCTS:
Hydro-Guard® HG-1 Signature Automatic Flushing Unit and Safety-Guard® Sampling Station from Hydro-Guard

SCOPE
The Central Texas resort city of Horseshoe Bay includes a growing number of lakeside properties for vacations and weekend getaways. It borders the south shore of ten-square-mile Lake Lyndon B. Johnson (Lake LBJ), formed by the Lower Colorado River Authority (LCRA). The area features a highly developed, built-up shoreline, boat houses and properties with a seasonal population.

PROBLEM
The Horseshoe Bay Water Distribution System (HBWDS) water quality testing includes eight parameters, from temperature and pH to coliform bacteria. Testing, flushing and sampling ensure water quality and provide critical data to the LCRA. The user population of the Horseshoe Bay Water Distribution System does not reach its peak until summer and the resultant levels of peak and low usage vary widely. This fluctuation impacts levels of disinfectant residual and, consequently, water quality — especially at the end of the line. Maintaining proper disinfectant residual is not traditionally problematic for closer lines of the system. Also, manual flushing of the utility’s hydrants to maintain water quality has resulted in excessive time and labor as workers must access the outlying areas.

SOLUTION
The City of Horseshoe Bay Utilities Department’s solution to the HBWDS’s challenges was a simple decision. According to Steve Hawley, Plant Operations, Supervisor, “We found that we had some water quality issues at the very end of our lines, and wanted to make this automated flushing project part of a much more comprehensive program to maintain water quality in our system.”

HBWDS subsequently installed:
• Ten, 2-inch Mueller Hydro-Guard® HG-1 Signature Automatic Flushing Units, primarily at the end points, plus
• Seven, 1-inch Safety-Guard® Sampling Stations

Hawley is already seeing substantial labor and time savings in the system. Each of his HG-1 Automatic Flushing Units is metered: readings are accurate and water age issues are now more manageable. Hawley remarked, “We’ve freed up man-hours and seen improvement in trouble areas. In some areas, a single HG-1 is saving us four to five hours of labor every week.”

Once it is known how much water must be flushed to maintain water quality...
levels, they can move to more frequent, lower-volume flushes, no matter what water usage in the city. Data showing savings in time and water quantity will soon exist which will aid in future expansion and updating of the system.

REFERENCES
10. Safety-Guard® Sampling Station from Hydro-Guard® by Mueller Co., 2014.