MOUNT EPHRAIM BOROUGH, NJ
Sale to New Jersey American Water leads to improved service, water quality and fire protection as well as financial flexibility for the local government.

**Project Type:** Municipal water system acquisition, infrastructure investment

**The Need:** Approximately 95 percent of the Borough’s distribution system pipes, installed in the 1930s and 1940s, had reached the end of their useful life. The aged infrastructure was causing significant instances of discolored water and poor water quality. More importantly, the system’s ability to provide adequate pressure at fire hydrants in various sections of town was severely limited. The system was in need of a significant capital investment to replace the aging infrastructure and local government officials determined that sale of the system was the best solution.

**The Solution:** New Jersey American Water, with over 125 years of experience investing in infrastructure and operating and maintaining water systems, was chosen as the partner. With the ability to finance necessary capital investments in the most cost effective manner, New Jersey American Water was able to make necessary improvements to the system without a significant impact upon the rates of the Borough’s residents.

**The Sale Process:** In November 2005, the sale of the water system was placed on the municipal election ballot. The referendum passed with an almost 2:1 margin. The New Jersey Board of Public Utilities subsequently approved the sale and New Jersey American Water became the new service provider shortly thereafter.

**THE RESULTS**
Since acquiring the Borough’s system, New Jersey American Water has invested in excess of $6.5 million in the water distribution system in Mount Ephraim.

**Improved fire protection**
The first priority was to assess the condition and flow of every fire hydrant in the Borough. Many were found to be non-functional or in poor condition. Immediately, a plan was put in place to replace non-functioning hydrants and 75 percent of fire hydrants have since been replaced.

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Replaced aging water mains
Over 5 miles of water main, or about a third of the system’s pipe network, including valves and individual customer service lines to the curb were upgraded or replaced. In addition, New Jersey American Water utilized Geographic Information System (GIS) technology to map the entire distribution system. This provides us the ability to better locate facilities and to address emergencies in a timely and efficient manner.

Valve inspection and replacement
One of the leading causes of discolored water and inadequate fire flow are broken valves in the distribution system. New Jersey American Water conducts a rigorous annual valve inspection and exercise program. As part of that effort in Mount Ephraim, 63 percent of the valves in the Borough were replaced. This work significantly decreased the number of discolored water and low pressure complaints.

Reliability
Prior to acquisition, the Borough had only one supply feed from New Jersey American Water from which they purchased all of their supply. After the acquisition, three additional supply feeds were added, improving system reliability and enhancing the ability to circulate water and ensure quality water service throughout the system.

Meter replacements
Within the first year, all 1,700+ meters were replaced with state of the art Radio Frequency (RF) meters. The conversion to RF meters essentially eliminates the need to estimate meter readings, providing customers with actual reads of water usage around which to base their decisions regarding water use. Plus, the readings can be completed without ever needing to gain access to the customer’s property.

BOTTOM LINE
The Borough’s sale of the municipal water system to New Jersey American Water resulted in much needed capital investments to upgrade the aging infrastructure, which greatly improved water quality and fire protection—all without a significant impact upon the rates paid by customers.