



TENNESSEE
AMERICAN WATER

INFRASTRUCTURE CHALLENGES

The water industry is capital intensive. Infrastructure replacement surcharge programs have been implemented in many states as an innovative way to secure needed water infrastructure investment in a timely, cost-efficient manner.

AN INNOVATIVE APPROACH

In 2013, the Tennessee General Assembly passed a law introduced by the Governor allowing the Tennessee Public Utility Commission (TPUC) to consider alternative rate mechanisms that would ensure continued reliability and quality of service, as well as promote local economic development.

The alternative rate mechanism allows Tennessee American Water to continue making necessary investments in the local water system's infrastructure with minimal impact to customers' rates.

Dedication to Continuous Infrastructure Investment

Tennessee American Water invests approximately \$16 million annually to replace, upgrade and expand water systems, which are vital to public health and the economy.

CAPITAL RECOVERY RIDERS

Tennessee American Water's alternative rate mechanism for capital infrastructure investments is known as "Capital Recovery Riders."

Examples of these riders include projects related to environmental compliance, replacement of water mains and production plant structures and economic development related projects. The Capital Recovery Riders filed for annually with the Tennessee Public Utility Commission range from a 3% to a 6% surcharge.



The dewatering facility uses centrifuge technology to efficiently remove sediment.

DEWATERING FACILITY – MAJOR PROJECT FUNDED THROUGH CAPITAL RECOVERY RIDERS

An \$18 million dewatering facility was completed to ensure that Tennessee American Water continues to meet all state and federal drinking water standards. The new facility reduces the amount of leftover sediment sent to the City of Chattanooga's sewer facility by 95%, and in turn allows the City to be in compliance with the Clean Water Act.

Using centrifuge technology, the facility removes excess water from the sediment. The resulting dry sediment is transported by a contractor for agricultural land application.





CAPITAL PLANNING

Tennessee American Water integrates a well-established capital planning process with an asset management program to prepare for the future. Tennessee American Water's engineers coordinate upgrades through 5-year, 10-year and 15-year comprehensive planning to ensure that new, more stringent, water quality guidelines, water demands, and community needs are being met.

RESILIENCY & REDUNDANCY

System resilience is considered during the comprehensive planning process. This evaluation includes examining how resilient the system is in the face of extreme weather events, natural hazards and threats. American Water also maintains business continuity and emergency response plans to increase preparedness for all hazard scenarios.



Employees worked on a large pipe that goes from the water plant to under the Tennessee River and supplies water to customers on the north side of the river.

A main break in a large pipe under the river in 2016 illustrates the importance of resiliency and redundancy.

Customers did not go without water during the three-week period that it took to complete the repair. Tennessee American Water has a second river pipe that continued to provide service to approximately 25,000 customers on the north side of the Tennessee River while the repair was made.

Leading Through Innovation:

New Water Basin Cleans Water More Efficiently

- In 2016, an \$8.5 million capital project replaced a 1920s-era water collection pool.
- The new basin is able to process water four times faster, increasing water production from 6 million gallons to 24 million gallons per day.
- Less water and fewer chemicals are needed to treat the water, making the basin 16 times more efficient.



The new water basin produces 24 million gallons of drinking water a day.