MASSACHUSETTS CLEAN WATER TRUST

The City of Fall River

HOW FALL RIVER USED AMP GRANT FUNDS TO CREATE A DATABASE THAT MAXIMIZES THE COST EFFICIENCY OF REPAIR WORK

Community Profile

Utility
Fall River City Community Utilities

Systems
Drinking Water, Stormwater, and Wastewater

2019, 2020, 2022, and 2025 Total Project Costs
$940,000

2019, 2020, 2022, and 2025 AMP Grants
$534,000

Utility Profile

Drinking Water
- Serves approximately **100,000** people
- **230** miles of water mains
- City Water Treatment Plant
- **7** water storage tanks
- **3** booster pump stations

Wastewater
- City Water Treatment Plant
- **13** wastewater pump stations
- **2** combined sewer overflow (CSO) screening and disinfection facilities
- **9** CSO drop shafts
- **3**-mile CSO tunnel

Fall River's Water and Sewer Departments, responsible for providing drinking water and wastewater services to the City's more than **100,000** residents, have been awarded four Asset Management Planning (AMP) Grants from the Clean Water Trust. In 2019, before receiving any grants, the City's Water Department suffered from a lack of historical data, making monitoring the conditions of the City's aging drinking water assets a serious challenge.

Activity Summary

- Updated and improved the City's existing Geographic Information System (**GIS**) data through inventory and location of assets
- Connected GIS to **Utility Cloud**, a Computerized Maintenance Management Software
- Completed an assessment of the **condition of assets** within the system
- Performed a **criticality analysis** on water assets
- Developed a **long-term Capital Improvement Plan** for drinking water, stormwater, and wastewater systems

Case Study - Fall River

Addressing Insufficient Data

Historically, Fall River's Water Department had not prioritized recording data on the City's drinking water system, leading to inefficient system maintenance. Paul Ferland, Fall River's Administrator of Community Utilities, said, "Ten years ago, when I first started here, the City actually paid one of its past employees that worked for the Water Department to come in and write down as much information as he had in his head because it wasn't written down or tracked anywhere." While many records existed, going back as far as 150 years, they were not always comprehensive and were often divided between paper and electronic systems, making creating a centralized database for these records a top priority for Fall River.

Utility Cloud for Asset Inventory

As Fall River officials expected, creating this database was a significant undertaking. Beyond combining existing records of Fall River's drinking water, wastewater, and stormwater systems, the City, in conjunction with their consultant, Wright-Pierce, completed a thorough inventory of all their assets to ensure that records were comprehensive. Fall River then began a software evaluation, ultimately deciding to use Utility Cloud, an operations management platform that enabled the City to combine the assets, workflows, and reporting from all three systems into one software program.

This transition meant that significant effort was to dedicated to updating this database, requiring both new equipment and additional staff training. While Fall River's operating budget was able to accommodate some of these new expenses, including new iPads and computers, other expenses, such as trainings and software, were funded through AMP grant funds. Mr. Ferland added, "Without these grants that were provided by the Clean Water Trust and MassDEP, none of this would've been able to move forward on our current operating budget."

Maximizing Efficiency for Repairs and Maintenance

Once new and existing records were uploaded to Fall River's new database, the City began updating records continuously, ensuring that the Water and Sewer Departments always have a complete and up-to-date picture of the City's drinking water, wastewater, and stormwater systems. This allows the City to maximize the efficiency of its repair and maintenance work, ensuring it can provide the best services possible within its budget.

A System for Future Generations

Beyond present efficiency benefits, Mr. Ferland is optimistic about the effects these changes will have in the future. Instead of having to rely on the memories of City employees who take their knowledge with them when they eventually change jobs or retire, this system allows this knowledge to be preserved for future generations. Mr. Ferland concluded, "To be able to have the information and data now, historically managed and kept moving forward, is going to be invaluable in the future."