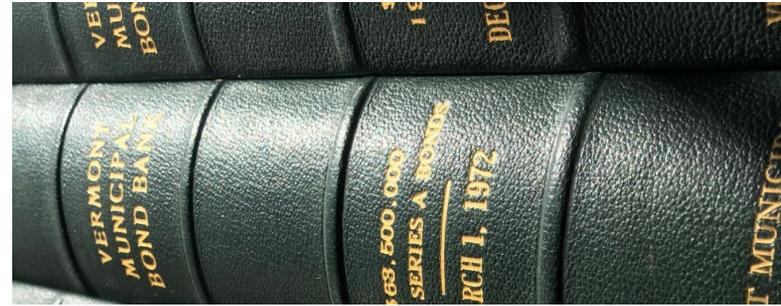




Vermont
Bond Bank



ASSET PRIORITIZATION CASE STUDIES

Asset Management Basics

What is the current state of my assets?

What is my required level of service?

What is my best long-term funding strategy?

What are my business risks?

What are my best O&M and CIP investment strategies?

Improving Technical Capacity - West Windsor Case Study

ISSUE OVERVIEW

- The Town of West Windsor acquired the West Windsor Mountain Water System in 2015 from the Summit Water Company.
- At that time, the system lacked the technical capacity to provide safe drinking water to its users, due to 1) significant fire damage sustained at the Ascutney Mountain Resort Base Lodge which houses the system's booster pumps and telemetry; and 2) inadequate pressures in portions of the distribution system.
- In 2017, the Town received a \$19,000 Asset Management Grant to do a full asset management plan for the newly acquired system.
- By inventorying all the assets and doing a risk assessment of those assets, the Town was able to develop a long-term plan for addressing the technical capacity issues it faced, addressing the highest risk assets first.
- As they could not address all the issues at once, the Town has been using the funding strategies developed in the Asset Management Plan to apply for DWSRF funding every year since to meet the goals in the plan and come into compliance with the Water Supply Rule.

COMMUNITY INSIGHT

Our situation is a little unusual, in that we acquired an existing water system from a ski resort, and the asset management plan process was helpful in focusing our attention on what we know about our assets and, perhaps more importantly, what we don't know (and need to figure out).

We are just now completing a second improvement project on the system, replacing the well house and some vulnerable pipes and installing a generator for the well. This project was recommended in both the Long-Range Plan and the Asset Management Plan.

The Asset Management Plan also included a recommendation that we evaluate our gate valves and curb stops and replace any that are inoperable. One big challenge has been locating them! But having this as a specific goal has kept us focused on moving forward, and I've developed a valve exercise spreadsheet to keep track of our progress. As we get more information about each valve (location, condition, tie records, photos) I add it to the spreadsheet. Once all the gate valves have been located, assessed and repaired or replaced, if necessary, we'll move on to the curb stops.

We did find the asset management plan process helpful, so much so that our Selectboard Chair insisted that we develop a similar plan for our sewer system.

- Martha Harrison, West Windsor Town Administrator

Facility Planning - Brattleboro Case Study

ISSUE OVERVIEW

- In 2017, Brattleboro Water Dept. received a \$20,000 Asset Management Grant from the State of Vermont, Department of Environmental Conservation, Drinking Water and Groundwater Protection Division to complete a full asset management plan for their Treatment Plant.
- Once all the assets had been inventoried and a risk assessment done on each, it became clear that many of the assets were past their useful life. By utilizing a risk matrix, the Water Department was able to develop a strategy to address replacing the assets over the next 20 years, addressing the highest risk assets first.
- The town then developed a financial strategy that utilizes Drinking Water State Revolving Fund (DWSRF) loans, rate increases, and changes to their maintenance programs to ensure the water system can afford to make the necessary investments in their treatment plant assets.
- In 2020, Brattleboro applied for a DWSRF loan to begin replacing the necessary water treatment plant assets that are past their useful life.

COMMUNITY INSIGHT

Our asset management plan offered the necessary tools to inform our water commissioners of the need to invest in a long term 20-year capital plan. We are currently developing the final plans for the upgrade of our Pleasant Valley drinking water facility. It is so important for a utility to develop an asset management plan to maintain a reliable affordable water system.

Brattleboro's mission statement was incorporated into the asset management plan:

"We commit to improving and maintaining the public health protection and performance of our drinking water plant and distribution utility assets, while minimizing the long-term cost of the operating assets. We strive to make the most cost – effective renewal and replacement investments and provide the highest-quality customer service possible".

We would strongly recommend an Asset Management plan to any community that desires to protect and preserve their utilities' investments.

- Steve Barrett, Brattleboro Public Works Director

Asset Efficiency - Richmond Case Study

ISSUE OVERVIEW

- The Town of Richmond was spending tens of thousands of dollars a year on waterline repairs, mostly on one stretch of line. And naturally, most of the breaks happened in the middle of winter, causing flooding in basements of homes and businesses, and disrupting service on the coldest of days.
- The Town knew that waterline needed to be replaced but had recently undertaken some very expensive water infrastructure projects and the resulting rate adjustments that caused significant increases for many customers made Town officials unsure if the community would be supportive of the additional debt.
- After careful analysis it was determined that the amount of money that was being spent on emergency repairs and damage to homes and businesses was just about equal to the new annual debt payment to replace the waterline.
- Through use of the Vermont Drinking Water State Revolving Fund, the Town was able to take advantage of extended loan terms, subprime rates and subsidies to make the work even more affordable.
- The work was also completed in advance of planned VTrans repaving, which, when completed, would prevent the Town from disturbing the pavement for at least two years (emergency work was still permitted).

COMMUNITY INSIGHT

Richmond was paying upwards of \$30,000 plus a year in repairs on the East Main St stretch of waterline. After the project was completed the final payment for the new waterline is about \$25,000 a year.

Prior to the waterline replacement, the single hydrant on that stretch was often out of service as it caused a major leak every time it was charged for use. This was a serious risk in the event of a fire in that area.

The system's largest commercial employer (Harrington's) is also on the East Main St. line, along with other residential and commercial customers, so it was a real problem when service was disrupted.

The new line has four hydrants, including one at the fire station, resulting in plenty of water in all situations.

- Kendall Chamberlin, Richmond Water Resources Superintendent

Asset Management resources

- State of Vermont State Revolving Funds- loans w/subsidy
 - Municipally-owned water systems- <https://dec.vermont.gov/water/drinking-water/capacity-dev/asset-management>
 - Municipally-owned wastewater systems- <https://dec.vermont.gov/water-investment/water-financing/cwsrf>
- Southwest Environmental Finance Center- provides AM assistance to local governments <https://swefc.unm.edu/home/>
- Web search for 'utility asset management software'- beware that some results are for managing investments and not physical assets



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