

## LEVEL OF SERVICE



The Level of Service (LOS) Statement defines the way in which the utility managers and operators want the system to perform over the long term.

The following highlight Belmont's LOS statement.

### **Quality**

- Maintain clean and safe drinking water in compliance with State and Federal Regulations.

### **Availability**

- Make water available to as many Belmont residents as economically feasible.

### **Supply**

- Minimize watering bans.
- Minimize non-revenue water and manage bleeders.

### **Distribution**

- Minimum water pressure should be 35 psi, with average pressure ranging from 60 to 80 psi.

### **Reliability**

- Notify customers 48 hours prior to planned shutdowns.
- Respond to supply or quality issues affecting a significant level of customers within 1 to 2 hrs.
- Repair unplanned shutdowns and breaks within 24 hrs where feasible.

## ASSET MANAGEMENT STRATEGIES

### Keys to Successful AM

- Keep it simple
- Form a living document
- Bring everyone on board

The following techniques are used to help keep Asset Management a successful on-going process.

- Continually updating the asset inventory and condition of assets over time.
- Update the Level of Service over time. Keep consistent with desired performance and customer expectations.
- Repair or replace assets that have a high probability of failure and high consequence of failure.
  - These will have the largest impacts on the system.

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# BELMONT, NH



# WATER SYSTEM ASSET MANAGEMENT

## INFO YOU SHOULD KNOW

### What is Asset Management?

Asset Management (AM) planning is a decision-making tool that helps managers determine how to operate and maintain their systems at the lowest cost while maintaining the desired level of service. It consists of the following:

**Asset Inventory** - What the system owns.

**Level of Service** - How the system performs.

**Critical Assets** - Identifying the most important risks and assets.

**Life Cycle Costing** - Costs of maintaining the system.

**Long-Term Funding Strategy** - How the system will pay the costs.



### How does it help?

Safe and reliable drinking water is critical to public health and quality of life in our communities. Significant investments have been made to build water infrastructure, but these systems are aging. Utilities will soon be faced with excessive costs to maintain service.

AM helps to better understand the condition of the water system, current and future deficiencies and needs, and the financial resources necessary to rehabilitate and replace assets when necessary.

## THE BELMONT WATER SYSTEM

### Utility Overview

- Provides water to The Town of Belmont, NH.
- Average daily demand is 113,000 gallons a day.

### Water Sources

- One active well located in Belmont.
- Water from the well is treated at an onsite facility with sodium hydroxide, sodium hypochlorite, and orthophosphate for corrosion prevention and disinfection.
- Two wells are currently offline, with plans to bring back one of them for use in emergency situations.

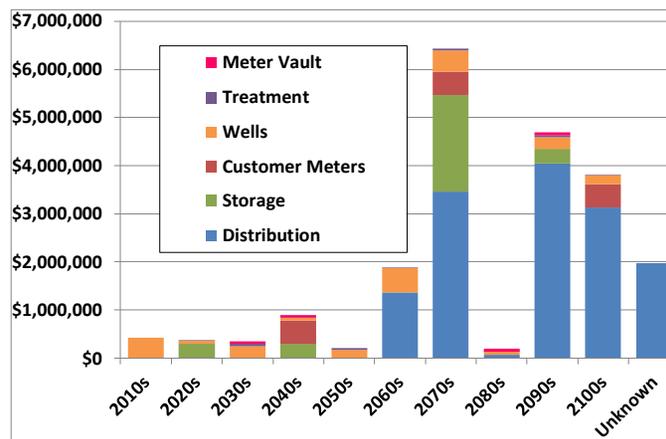
### Water Storage

- One active storage tank located on Gilmananton Road.
- Storage capacity of 1.0 million gallons.

### Distribution Mains

- Belmont owns and operates approximately 12 miles of water main of various materials, age, and sizes.

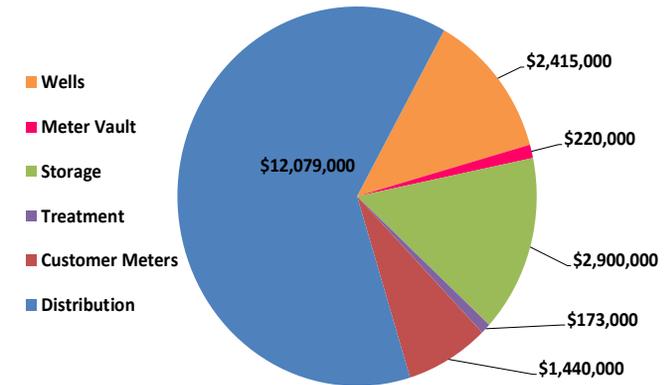
## ASSET REPLACEMENT AND COST SCHEDULE (2014 DOLLARS)



## LIFECYCLE COSTS

### Cost Estimates

Underwood Engineers estimated costs over the next 100 years based on expected life span of assets. Costs included both major refurbishments and replacement of assets.



## LONG TERM FUNDING PLAN

### Life Cycle Costs

- The average annual cost to be set aside for future projects is \$192,000. This may be unfeasible for Belmont. A more attainable goal would be to set aside 50% of the total costs, and rely on debt and grants to cover additional costs.
- Due to recent investments, the need for spending has been lowered over the next 50 years, and a significant amount of debt needs to be paid back.
- After debt is paid off (~20 yrs), Belmont can begin setting aside reserves to help mitigate the costs of future major upgrades, the majority of which will be necessary in the 2070s.
- If Belmont plans to save 50% of the total cost for future projects, and distribute the cost over 80 of the next 100 years, they will need to **save \$120,000 per year** starting in 2034.