every drop counts

Beech Mountain Water Education/Information Sheet

Total Cost of Water

As Beech Mountain proceeds with upgrading its water and sewer infrastructure, including the Watauga Intake, it is important for citizens and taxpayers to understand the costs of the system and how the upgrades will be financed. Any water system's total costs consist of three primary elements: Water Supply Costs; Capital Improvement Costs; and Operation and Maintenance Costs. Beech Mountain's annual budget breaks down the Town's water and sewer budget into two of these categories (capital improvement costs and operation and maintenance costs), since Beech Mountain does not currently pay for water supply.

For example, in the Beech Mountain 2019-2020 budget, the water and sewer system expects Capital Improvement Costs of about $1,451,000, consisting of both debt service for outstanding loans and cash financed capital projects. The Operating and Maintenance Costs are budgeted at $1,698,900. In North Carolina each municipalities water and sewer system is considered a separate fund. The State expects each such fund to be self-supporting and can prohibit borrowing for any fund that is not self-sustaining. Therefore, revenues for the water and sewer system must equal total costs and those revenues are primarily driven by water and sewer rates.

The Capital Improvement Cost component of total cost can be further broken down into costs for planning, design, permitting, construction and financing any improvement. When considering the Watauga Intake, these costs will include the cost of leasing land on the Watauga River, the engineering, design and permitting costs. Specifically, the project will require an actual intake building and pump station, at least one intermediate pump station and a raw water transmission line about 7 miles in length. The Town will also need to insure there is sufficient electrical supply to power the pumps, as well as a back up power supply. While these costs are incurred during the design and construction of the project, their impact on customers is typically spread out using a long-term loan or bonds. It is currently anticipated that Beech Mountain will finance the Intake using a USDA loan, similar to the loan used to fund the new water treatment plant.

The Operating and Maintenance Cost component of total cost is the amount necessary to properly operate and maintain the infrastructure. Adding any new element to an existing water system increases the overall operating and maintenance costs. The types of costs included are personnel, energy, chemicals, and supplies, as well as spare and repair parts.

Beech Mountain has retained an engineering and consulting company to conduct an annual assessment of its water and sewer needs, as well as its revenue stream. This assessment also includes a ten-year needs projection and projects anticipated rates to support the system. All data generated from this annual review is publically available. In addition, the UNC School of Government has created an online calculator to compare costs and rates of water systems

throughout the State. https://efc.sog.unc.edu/resource/north-carolina-water-and-wastewater-rates-dashboard This highly useful tool can both examine where a particular system currently is and project how it can manage future requirements.

Because Beech Mountain is home to many second homes, it has determined that its water and sewer rate structure must be based on a high monthly minimum bill. Given that many homeowners do not use any water for up to half the year, the system could not be financially viable without a significant monthly minimum charge. This is in contrast to many larger systems where there is a small base charge and usage the determines most of the monthly bill.