

Recent History of the Hinsdale Water and Sewer Systems

Belmont Reservoir

In the late 1800s, the Town developed Belmont Reservoir as the primary water source for residents. Belmont Reservoir still serves as the Town's water supply today. The Town's backup supply is designated as Plunkett Reservoir, which may be accurate, but a clear plan for that to happen needs to be developed (soon).

This "water system" initially served residents within the immediate area downstream from the Belmont, organized as the "Fire District." The Fire District was a separate entity from the Town and did all the maintenance and billing for the water, issuing independent reports from the Town Report every year. Users were added over the years on the Fire District's immediate outskirts, which has since been dissolved. System users were approved and added based on their location, available water pressure, and the system's capacity. Over the years, the lines have been extended based on the gravity flow and the power of the Reservoir at the time of the request. There are 322 users, approximately one-third of the Town's population.

In 1987 new distribution loops were added to increase water pressure. A water storage tank was installed in 1995 to serve residents with 540,000gals better. In 1996, Hinsdale further improved its drinking water quality by installing a filtration system that replaced the direct connection coming from the Belmont Reservoir.

Much of the Town is served by public sewer, which flows through Dalton to the Pittsfield Wastewater Treatment Plant. Similarly, the first sewer was built around that time to address the growth of the textile mills and the increasing local population. The public sewer system also helps to improve the water quality around Hinsdale's lakes.

Until the 1970s, wastewater from various buildings and homes flowed into the Housatonic River. The State of Massachusetts ordered Hinsdale to cease direct drainage or face heavy fines. This mandate led to Phase 1 sewer construction, which added new lines throughout the downtown area and connected them to the Dalton system at the Town line.

Phase 2 of this project began in 1976 with a total cost estimate of \$1.3mil.

[Beachwood is a separate entity and separately billed by Dalton to the Town, the Town bills and collects, and the Dalton bill is paid by the Town plus a 10% admin fee to the users. The Town of Dalton owns Sewer 2, but Hinsdale took over the billing end because they cannot put liens for non-payment on property in another Town.]

By June 1998, the Town approved Phase 3, which included installing low-pressure sewage systems and grinder pumps for about 80% of the users. Phase III brought sewers to both the Ashmere and Plunkett Lake communities.

Issues of the Recent Past

Along with enacting the Clean Water Act, the EPA mandated that municipalities could no longer operate an open-air water supply without treatment. This required the construction of the water treatment plant by Curran Construction in the mid to late 80s. The new plant upgraded the existing chlorinator building on land off Robinson Road.

In 2003 the Massachusetts Department of Environmental Protection (DEP) conducted a source water assessment. As a result, the Town was required to create and comply with Emergency response plans and provide reports upon request. Notices were sent to the Town of Hinsdale, requiring us to address a list of deficiencies it found in our water system. These were primarily ignored over 10-15 years.

In September 2014, Hinsdale received a letter from DEP explaining how the Town was not compliant with State regulations regarding water metering, quality, and sewer system operation and management. A report of findings was given to the Town, listing issues and corrective actions. Hinsdale was warned that if no action were taken, a fine of \$25,000 per day would be levied for non-compliance. At this time, the Town took action to address the mandated costs of repairs and updates for each system. The largest of these mandates was to replace all existing water meters with new, easy-to-read units that would provide a more accurate way to measure water consumption.

Official Steps

In early 2015 the Hinsdale Water/Sewer Committee was empaneled to bring the water and sewer systems up to date. The Committee was to assist and advise in the existing Water/Sewer Commission's work addressing the issues identified by DEP. The Town also hired DPC, a consulting firm specializing in "Progressive solutions for municipal infrastructure," to assist in working with State regulators.

Over the following months, it was discovered that rates for water and sewer services had not been reviewed for 13 years. Residents were charged a flat fee for their connection to the water system but not for their water usage. In addition, existing water meters had not been calibrated since their installation 19 years prior, and many were not operating. It was also apparent that the sewer grinder pumps, installed during Phase III construction, only came with a 5-year warranty. Over time these pumps started breaking down, with replacement costs at \$2500 each for parts and labor.

Town reserve accounts were well below what was necessary to improve compliance with State codes and regulations, as nothing had been set aside for system maintenance. In 2016, Hinsdale voted to borrow \$175,000 to purchase new water meters. Users will be charged approximately \$125 +/- annually for five years to repay this loan. The new meters were installed, and meter readings were taken in 2018, the same year the Town of Hinsdale received a notice of compliance from DEP on its upgraded water and sewer systems.

The Current Challenges

Problems remained as many of DEP's concerns were still left unaddressed, and systemic issues persisted. As a result, the Commission and Committee continued their work to improve on issues of water quality, infrastructure maintenance, and financial stability.

State law stipulates that a one-year cost surplus must be maintained to meet State accounting requirements for water and sewer systems. This surplus was not fully funded as the costs of the system had been paid from the surplus, drawing it down below the required one year's worth of funding.

Only system users pay for 'tie-ins' to the water and sewer systems. Funds are not raised through property taxes. For the sewer system, only a small number of users provide funding, and rates have remained constant for years.

Measures have been taken to ensure the Town meets state specifications and generates enough money to pay operational costs. One step taken was to hire a part-time superintendent and full-time maintenance person to perform the day-to-day maintenance on both systems. There is now a very aggressive preventative maintenance program on both systems to provide a proactive and more affordable approach without the need to repair failures as they happen.

Even With Proper Maintenance

"Note that there has been no maintenance to the Ashmere grinder pumps. I believe this was scheduled for 2020 but has not happened to date (nor in the last 20 years). Suppose that will occur soon. I think from reading the minutes that the pumps at Plunkett were serviced in 2019. (Cracked tanks could be another reason for inflow into this system.) That would be good to include here.

Failures and replacement of old equipment will be a constant, as will be the challenge of keeping up with costs. And -effective cost measures are put in place, potential problems will constantly challenge Hinsdale. For example, Hinsdale relies upon the Towns of Dalton and Pittsfield to treat our sewage. Sewage flows from Hinsdale through Dalton to the Pittsfield Treatment Plant. A flow meter at the Dalton/Hinsdale line measures the amount Hinsdale is adding to Dalton sewer lines. Pittsfield annually bills Dalton for its share, which includes the Hinsdale percentage. Dalton then bills Hinsdale for that percentage. Pittsfield has been updating its treatment plant, and some of those costs have been transferred to Hinsdale. Our sewer rates have not been adjusted to reflect this increase, and in 2015 these costs nearly doubled. In addition, recent increases in-ground and stormwater entering the system have prompted our Water Department to develop a plan to address inflow and infiltration requirements. We are also working with Pittsfield to address consistency in billing.

Conclusions

Hinsdale shall continue to invest in and maintain these essential systems to provide safe drinking water and maintain the water quality of our lakes. The Town intends to complete the water line replacement project and implement a usage-based pricing structure that is fair to all residents.

Hinsdale will also strive to improve the efficiency of the sewer system by taking steps to improve the overall efficiency of the sewer system. This can be done by reducing inflow and infiltration and regular maintenance and upgrading. The Town will conduct a diagnostic/feasibility study and fund and implement recommendations to eliminate or minimize inflow and infiltration. Lastly, we hope to ensure the water and sewer systems' viability by developing and improving a long-term maintenance and capital improvements plan.