



TOWN OF MAYNARD
Department of Public Works
MUNICIPAL BUILDING

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To: Board of Selectmen
CC: Gregory Johnson, Town Administrator
Date: February 2, 2020
Subj: Summary of Findings informing recommended water and sewer utilities rate adjustments

Overview:

- The Department of Public Works (DPW), through its Water and Sewer Division, has the responsibility to review the enterprise funding accounts and sustainability to provide necessary funding for the yearly operation of both water and sewer utility operations, as well as capital improvements to water and sewer infrastructure. The department is responsible to provide clean drinking water and sanitary sewer discharge for the town.

Water & Sewer utility Programs:

- The Water and Sewer Division is responsible for ensuring that the town's water supply meets or exceeds all federal Environmental Protection Agency (EPA) and state Department Environmental Protection (DEP) guidelines for safe drinking water and that all wastewater is collected and delivered to the wastewater treatment plant.
- Maynard's Wastewater Treatment Plant is responsible for ensuring that all effluent discharged into the Assabet River meets or exceeds all EPA and DEP requirements.

Town of Maynard's Water & Sewer Utility:

- The town of Maynard's Water and Sewer Division operates and maintains:
 - Three water treatment plants.
 - Over 100 miles of underground water and sewer distribution piping. Ranging in age of install from 1900 – 1990, with most of the distribution system well over 70 years old.
 - 10 sewer pump stations at various locations across town.
- The town of Maynard has a wastewater treatment facility which is operated through a contractor, Veolia. The town is responsible for capital costs and contracted operational costs associated with the plant's operation.

Research Approach:

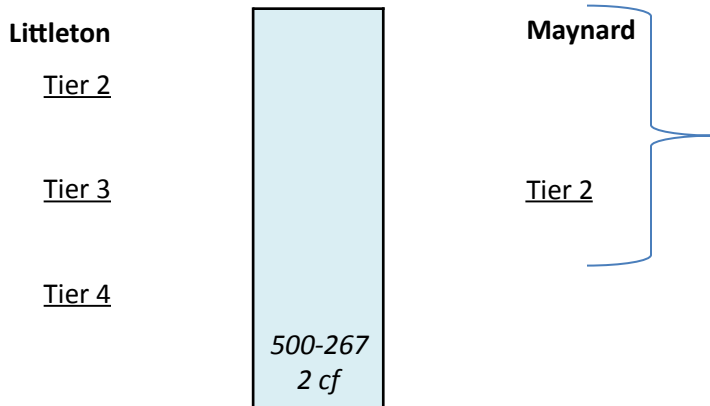
- When looking for comparative communities, the first step is to look at communities of equal size, i.e. population, area (square miles), residential units, etc.

- Unfortunately, utilities such as water/sewer/municipal lighting are not “apples-to-apples” comparisons. There are many variables that must be equated to narrow down appropriate comparatives, even then each utility is unique, age, water production (well, surface, outside source, regionalization), sewer treatment (type, regionalization), regulatory permitted limits, etc.
- DPW is focusing on the town of Maynard’s needs, current and future in conjunction to our water capacity study, and capital plan.

Municipal Utility Comparison:

Littleton:

- Littleton posts their rates per gallon; whereas Maynard is posted in cubic feet. The conversion is 7.48 gallons = 1 cubic foot (cf).
- Littleton has a base charge of \$10, before a charge of \$5.66 per 668cf when converted. This is technically \$10.16 higher compared to Maynard’s 500cf or-less users (often elderly residents).
 - o Littleton’s tier 2 is \$7.07 for 668cf – 1,336cf plus the initial \$10.
 - o Littleton’s tier 3 is \$8.84 for 1,336cf – 2,004cf plus the initial \$10.
 - o Littleton’s tier 4 is \$11.00 for 2,004cf – 2,672cf plus the initial \$10.
 - o This is extra tiering that is used to adjust for the higher payments at lower water use.
 - o Maynard’s tier 2 is \$10.60 for 500cf – 2,500cf



- o Maynard’s tier system is set-up to alleviate the cost on our lesser users, promoting conservation which attributes to our lack in water production. Most average users fall into the use of 2500cf per quarter, for which Maynard is lower.
- Littleton can produce over 2.3 million gallons a day, double what Maynard can produce, allowing Littleton to not have to implement mandatory water bans as is the case in Maynard. This means Littleton can sell as much water as possible for an increased revenue stream. Maynard’s water supply is currently at near-maximum use.
- Littleton does not provide sewer, while the sewer utility is the more expensive aspect of the town of Maynard’s bills, i.e. actual dollar amount. This is due to the large

- amount of improvement needed to our sewer system including our treatment plant, for which we contract the services.
- Most comparable towns do not have major water capacity issues that the town of Maynard has, as shown in the attached water capacity memo from our water engineering consultant firm, Stantec.

Summary:

- After review of the overall utilities, contracts, regulation requirements of both present and future, water capacity, sewer capacity, projected development, and capital plan, my findings and recommendations are provided in a corresponding memorandum.

Supplemental Resource – Water Processing:

https://www.youtube.com/watch?v=dq9Yg_jlsUc&feature=youtu.be

https://www.usgs.gov/special-topic/water-science-school/science/aquifers-and-groundwater?qt-science_center_objects=0#qt-science_center_objects