

a. Assessment by DPW, supporting consultants, etc., of whether the current capacity of the Waste Water Treatment Plant (WWTP) and sewage collection system would be sufficient to accommodate the proposed LIP project. What is the estimated "burden" (%) on capacity represented by this agreement?

Sewer Collection System

In August of 2017 the Maynard Department of Public Works completed an impact analysis and sewer flow modeling for the Powder Mill Place development. The analysis included the CCTV inspection of the Maynard sewer system which currently services the property located on Powder Mill Road and the downstream impacts of future flows from the Powder Mill Place development. The assessment recommended that the lining and replacement of over 2000 liner feet of sewer main be completed to allow the system to support the additional 42,000 gallon per day flow from the proposed Powder Mill Place development. Details of this recommendation, including estimated costs, can be found in the document titled "Review of Powder Mill Place Development 2,4,12,18 Powder Mill Road, Acton Massachusetts 112,114,116,118 Powder Mill Road, Maynard, Massachusetts - Sewer Impact Analysis and Condition Assessment Recommendations."

Waste Water Treatment Plant

The Maynard Waste Water Treatment Plant (WWTP) has additional capacity based on the current daily average flow rate vs. permitted capacity. A recent capacity evaluation was completed by Veolia North America, the Town's Operations & Maintenance management contractor who operates the facility. The analysis of the past four years of influent data showed that the facility is frequently operating above the influent design values. However, during this same time period, the facility has been in compliance with the NPDES discharge permit limits. The department recommends that a condition assessment of the facility be completed. The specifics of this condition assessment are detailed in the document titled "Maynard WWTP Capacity Evaluation."

- Current 12-Month average flow rate – 0.94 MGD
- Anticipated additional flow from proposed project – 0.042 MGD
- Permitted capacity – 1.45 MGD
- PMP Projected usage of permitted capacity – 2.89% of permitted capacity

b. Assessment by DPW, supporting consultants, etc., of whether the current capacity of the WWTP and sewage collection system would be sufficient to accommodate other proposed and projected developments (commercial and residential) within the Town, assuming that the proposed LIP agreement is approved. What capacity would remain (%) after this agreement is approved and executed?

The Town has completed two recent project specific capacity assessments, the 129 Parker Street Analysis and the Powder Mill Place Development Analysis. The 129 Parker Street development is anticipated to discharge 92,403 gallons of sewer per day and Powder Mill Place project is estimated to discharge 42,000 gallons of sewer per day into the collection system. The total of these two projects plus the current daily flow rate would increase the total anticipated flow rate to 1.074 MGD, or 74% capacity of the permitted allowable discharge from the WWTP.

c. Assessment by DPW, supporting consultants, etc., of projected improvements to the WWTP and sewage collection system required to accommodate the proposed LIP agreement, including sufficiency of all improvements (for example, the developer's proposal to replace vs. reline) and verified costs of all improvements. This includes (but is not limited to) the following proposed improvements:

Sewer Impacts as further detailed in Section III (D) of this agreement

Pump station upgrades \$250,000

Jeter/Vacuum truck \$400,000

1968±' of reline, 84' + 61' \$450,000

#### Sewer Collection System

In August of 2017 the Maynard Department of Public Works completed an impact analysis and sewer flow modeling for the Powder Mill Place development. The analysis included the CCTV inspection of the Maynard sewer system which currently services the property located on Powder Mill Road and the downstream impacts of future flows from the Powder Mill Place development. The assessment recommended that the lining and replacement of over 2000 liner feet of sewer main be completed to allow the system to support the additional 42,000 gallon per day flow from the proposed Powder Mill Place development. Details of this recommendation, including estimated costs, can be found in the document titled *“Review of Powder Mill Place Development 2,4,12,18 Powder Mill Road, Acton Massachusetts 112,114,116,118 Powder Mill Road, Maynard, Massachusetts - Sewer Impact Analysis and Condition Assessment Recommendations.”*

#### Powder Mill Pump Station Force Main

In July of 2018 the Maynard Department of Public Works completed an analysis of the existing sewer force main located between the Powder Mill Pump Station and the Waste Water Treatment Facility. This force main conveys Town sewer from the Pump Station under the Assabet River, into a manhole located on the north side of the river. The current 12-inch ductile iron force main was constructed in 1984 and services 75-80 percent of the Town's current wastewater flows. While the force main functions currently with sufficient capacity to handle additional flows, it is a critical piece of the sewer infrastructure in Maynard. It is recommended that the Town plan to install a new redundant force main to provide additional capacity and redundancy for future flows. Details of the recommendation, including estimated costs, can be found in the document titled *“Powdermill Pump Station Force Main – 12-inch Ductile Iron Under the Assabet River, Maynard, MA.”*

#### Waste Water Treatment Plant

The Maynard Waste Water Treatment Plant (WWTP) has additional capacity based on the current daily average flow rate vs. permitted capacity. A recent capacity evaluation was completed by Veolia North America, the Town's Operations & Maintenance

management contractor who operates the facility. The analysis of the past four years of influent data showed that the facility is frequently operating above the influent design values. However, during this same time period, the facility has been in compliance with the NPDES discharge permit limits. The department recommends that a condition assessment of the facility be completed. The specifics of this condition assessment are detailed in the document titled “*Maynard WWTP Capacity Evaluation.*”

d. Has an analysis been done on sewer fee collection vs long-term maintenance cost for the 254 dwellings? Would the Town break even, come out ahead, or below cost of operation? Does the projected estimate take into account increasing mandatory requirements for controlling outflow cleanliness by the state or today’s requirements?

The Town completed a Water and Sewer Rate Analysis in December of 2017. The analysis was based on current and historical usage. The analysis considers the current known salary, expenditure and capital needs of the Water & Sewer Division. The analysis projected rates for three fiscal years (FY18, FY19 and FY20). The budget review and analysis does consider current regulatory requirements/operational costs. The rate analysis did not consider the proposed Powder Mill Place Development.

~~e. Assessment by other Departments—especially Police and Fire Departments—about projected budget impacts in the long term to support the proposed LIP agreement.~~

f. Revised fiscal impact statement to include all financial impacts to the Town, including (but not limited to) water and sewer, as well as long-term risks over the proposed life of the agreement.

See Financial impact analysis from Barret Planning Group LLC dated April 18, 2018.

g. Any other issues associated with the proposed LIP that you or the Department Heads are aware of that represent financial risks to the Town.

#### Public Works – Staffing and Equipment

The Maynard Department of Public Works – Water & Sewer Division currently operates with five employees. These employees are responsible for the operation and maintenance of three water treatment facilities, 11 sewer lift stations, over 400 sewer manholes, and over 100 miles of water & sewer main piping. It has been recommended in recent years by the MassDEP that the department hire additional operators. The major equipment vital to the operation of the department is also lacking. Critical equipment, such as the Jetting/Vacuum Truck, is in need of replacement. The Department will need additional staffing and equipment to continue to provide the services necessary to properly operate the sewer collection system with the projected future demand.

h. The normal sewer hookup fee for a new house or business, as well as the history of that fee over time (for the purpose of projecting likely increases in the future). Also, are the current fees adequate?

The current sewer connection fees are listed below. These fees were assessed and increased to the current amounts in July of 2016 from the previous amount of \$3,000 per connection. These fees are in line with regional fee schedules and the department does not anticipate an increase in the near future.

Residential Sewer Service Connection (per dwelling unit)	\$3,500.00
Non-Residential Sewer Service Connection < 5,000 gallon per day	\$3,500.00
Non-Residential Sewer Service Connection > 5,000 gpd*	Determined by DPW Director with approval of the BOS