



CITY OF GLOUCESTER

Commonwealth of Massachusetts

DPW – ENGINEERING & WATER COMPLIANCE

CITY HALL ANNEX

2ND FLOOR

3 POND ROAD

GLOUCESTER, MA 01930

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Drinking Water System

Watershed Withdrawal:

The City of Gloucester is currently permitted by Mass DEP to draw 3.75 MGD (Million Gallons per Day) from the City's reservoirs. Based on historical data from the annual statistical reports, the City has approximately 650,000 to 750,000 gallons of available raw water per day before becoming non-compliant with the Water Management Act Permit. The City would have to reach out to MassDEP to determine if the permitted amount of raw water used could be increased.

Per Day Average Allowed by WMA Permit: 3.75 MGD

Past 5 Years Per Day Average Withdrawal: 3.01 MGD

Finished Water Capacity:

In 2013, Fay, Spofford & Thorndike developed a Water Master Plan for the City of Gloucester. In this report the capacity of each treatment plant is listed. The City operates each water treatment plant for 6 months a year. Based on the data below the average day is approximately 55% of our treatment capacity. The average high day is approximately 80% of our capacity and the max high day is 89% of our capacity. If Gloucester was to exceed capacity in a single day, the result would be less water pressure in the city.

West Gloucester Water Treatment Plant Capacity: 5.3 MGD

Babson Water Treatment Plant Capacity: 5.2 MGD

Past 5 Years Per Day Average Finished Water Usage: 2.84 MGD

Past 5 Years Average Highest Usage Day: 4.33 MGD

Highest Usage Day since 2009: 4.72 MGD

Finished Water Storage: 7.35 MG

Per the Wright Pierce Asset Management Plan of 2021 states that Gloucester has a surplus of water storage to meet projected population growth estimates of 2040.

Wastewater System

The City of Gloucester has a MassDEP approved Wastewater discharge limit of 5.15 MGD. Gloucester has two Inter-Municipal Agreements for accepting a limited amount of waste water flow from the Town of Essex and Town of Rockport. If Gloucester upgrades to a secondary treatment facility then the discharge limit will be 7.24 MGD. Gloucester on average uses 73% of the approved primary discharge volume per day. If Gloucester were to upgrade to secondary treatment, the current average discharge would be 52% of the permitted discharge amount. The Wastewater Plant can handle a peak flow of 15 MGD, in 2021 the peak flow was 8.7 MGD. This data was found in the Wright Pierce Asset Management Plan of 2021 and City historical records.

Wastewater Treatment Plant Capacity:

Average Approved Limit 5.15 MGD
Average Approved Limit (w/ Secondary) 7.24 MGD
2021 Average Flow: 3.75 MGD
2021 Peak Flow: 8.7 MGD
Peak Flow Capacity: 15 MGD

Public Works has a role in reviewing all larger/ major projects. Each project is considered independently for site/area specific needs, but both utilities have capacity for some future growth.