



Appendix H
Financial Capacity



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Montague LTCP Financial Capabilities

Community Profile

US Census Bureau data (2021) show the Town of Montague has a population of 8,580, with population growth of 1.6% over the preceding decade. The Town is situated in Franklin County, MA, which is the poorest region of the state. The County has an aging population (mean age of 47.2) with official projections showing a 5.1% decrease in population in the coming 20-30 years. Montague is comprised of five villages and includes four (4) census block groups that are identified as Environmental Justice areas, with approximately 47% of its residents living in these census blocks.

Existing Financial Capacity

The Town of Montague's collection system and wastewater treatment plant is supported through distinct sources, its General Fund, and the Montague Clean Water Facility (CWF) Enterprise Fund. As required by Town bylaws, wastewater collection and treatment expenses are borne by the system users and accounted for in the CWF Enterprise Fund budget. Accordingly, this analysis of the Town's financial capacity to implement projects to mitigate or eliminate Combined Sewer Overflow (CSO) events discusses both funding sources, with the understanding that the Enterprise Fund is the primary driver of financial capacity and is therefore the primary focus of this analysis.

The Town's General Fund supports debt service and operation and maintenance (O&M) activities related to stormwater collection and the treatment of infiltration and inflow (I/I) at the Clean Water Facility (CWF). Debt service on sewer related infrastructure upgrades for the specific purpose of mitigating CSO events is split 40/60, Town/CWF—reflecting the impact of the combined system—and the cost to treat excess I/I at the CWF is paid by the General Fund to the CWF Enterprise Fund based on established and objective statistical methods.

An analysis of Montague's general fund financials with respect to Moody's medians for investment grade borrowers, shows results that are well within acceptable ratios. This means that indicators such as debt service as a percentage of operating expenses, debt service as a percentage of revenue, and general obligation debt as a percentage of revenue are all comparable to peers. However, the Town has deferred major facility replacement projects (two schools and a library) that are beyond their useful life due to the existing high tax burden, which is particularly high for commercial and industrial interests due to a split tax rate (1.3 factor). In short, the General Fund may have capacity to borrow, but a limited ability to leverage further taxation.

The CWF Enterprise Fund supports debt service and O&M activities related to the treatment of sewage at the CWF, and of approximately 69 miles of pipe and eight (8) pump stations necessary to support the collection of sewage throughout the service area. Debt service on sewer related infrastructure is the exclusive responsibility of the Enterprise Fund, unless it is related to CSO Mitigation (reflecting that the

storm and sewer system is combined in these areas), in which case it is split 40/60, town/CWF. Again, the cost to treat excess I/I at the CWF is paid by the General Fund to the Enterprise Fund.

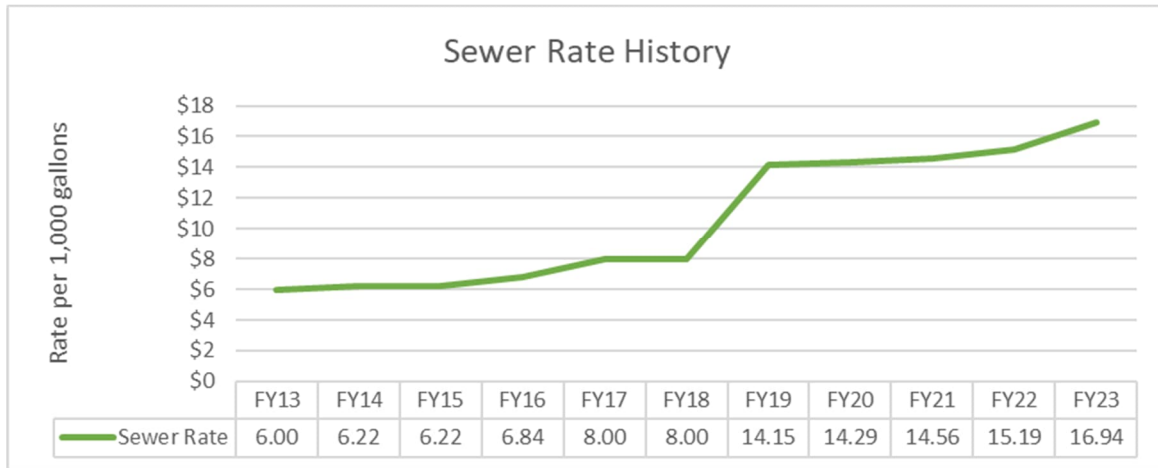
The Enterprise Fund's financial picture is substantially more challenging than that of the General Fund, a fact that is compounded by the continuing decline in sewer flow, which is directly related to revenue, which decreased by 37.9% from 1.05 MGD to 0.652 MGD over the past 20 years. Further, over the last 5 years, flow has decreased by 29.8% from 0.929 MGD to 0.652 MGD. The resulting revenue decreases and necessarily significant increases to sewer rates have not stabilized the financial picture. When Montague's Enterprise Fund is compared to Moody's medians for investment grade water and sewer enterprise funds, it results in ratios well outside of most indices. These ratios are used to determine the rating a borrower seeking to receive funds from capital markets will receive; the better the ratios the higher the ranking, the higher the ranking the lower the interest rate paid on debt.

Of greatest concern is debt service coverage ratio (DSCR) which is the ratio of Net Operating Income to Existing Debt Service. Using figures from the FY22 audit, the ratio is 1.47x, which is below Moody's median of 1.7x, and slightly above the 1.25x ratio often expected when evaluating future debt capacity. This means that, while the ratio is below its peers, on paper there is still enough revenue to support current debt and expenses obligations.

When the forthcoming USDA-RD funded screw pump project debt payment is added, the ratios worsen. Projecting for the expected USDA-RD debt, using the adopted FY24 budget, the DSCR dips to 0.89x. Anything below 1.0x indicates revenue deficit; additional revenue through rate increases or reduction in expenses, which often comes in the form of reducing or eliminating contributions to reserves, would need to occur. In addition, USDA-RD requires borrowers to show contribution to a short-lived asset reserve fund. This would necessitate further increases in revenues to demonstrate such a contribution.

Debt and operating ratios, however, only provide one piece of the financial puzzle. An examination of sewer user rates is central to the question of financial capacity, both for current expenses and when considering necessary capital projects. The present (FY23) sewer rate is \$16.94/1,000 gallons, which reflects an increase of 112% in the past six years. Table 1 shows a 10-year history of sewer rates. Montague's analyses show that every additional \$20,000 that is added to the Enterprise Fund Operating Budget increases the sewer user rate by a little over one (1) full percentage point. Accordingly, independent of other operational cost increases, the addition of \$100,000/year in debt service will increase user rates by over five (5) percentage points. This rate increase would be in addition to inflationary impacts on labor and other operational costs.

Table 1



Future Financial Capacity

Clean Water Facility Capital Projects FY2024-2029

Montague's *FY2024-2029 Capital Plan* outlines town-wide capital projects over the next five years. The plan includes estimated costs to undertake required projects and identifies potential funding and financing sources. This plan was the basis for an analysis of infrastructure related to the stormwater collection system and CWF using the Massachusetts SRF Clean Water Program's (CWSRF) financing rates and terms as the basis for debt service costs. The CWSRF program was used as the basis for estimating debt as it represents the most consistent and predictable funding source available.

There are other funding sources that offer longer terms, such as USDA-RD or capital markets; however, USDA-RD's rates are adjusted quarterly and accessing capital markets, in addition to having unpredictable associated interest rates, have costs associated with their issuances. It is also assumed that Montague will qualify for grants, however, those are not guaranteed and including potential grant support would not be a responsible way to predict future debt capacity projections.

Currently, the CWSRF financing rate for a 20-year term is 2.0% interest and 0.15% administrative fee. The CWSRF program does offer a 30-year term at 2.4% interest and 0.15% administrative fee, however, the shorter term was used to represent conservative debt estimates. Future debt projections were analyzed for the following capital projects. Those projects that were not estimated to begin repayment in FY25 had a 3% inflation rate added each year after FY25. Table 2 presents a summary of Clean Water Facility projects with estimated current and projected costs estimated. Table 3 is a summary of the estimated annual debt payments for Table 2's projects. Note that these are not projects required to mitigate CSOs but are essential to maintain the basic functioning of the collection and treatment systems.

Table 2

Clean Water Facility Capital Projects	Current Project Cost Estimate	Projected FY of 1 st Debt Payment	Inflation Adjusted Cost Estimate
Screw pump*	\$2,500,000	FY24	n/a
Septage Receiving Station	\$264,000	FY25	n/a
Montague Center Pump Station	\$250,000	FY26	\$257,500

Primary and Secondary clarifiers mechanical upgrade	\$630,000	FY27	\$668,400
Grit removal and channel relocation	\$1,750,000	FY29	\$1,970,000
Pump Station Upgrade: J St., G St., Lake Pleasant, Denton St	\$348,000	FY27	\$370,000
Millers Falls Priority 1	\$550,600	FY25	\$585,000
Millers Falls Priority 2**	\$125,700	FY30	\$146,000
Sewer Re-lining***	\$2,000,000	FY26	\$2,100,000

*Screw pump project is anticipating a USDA-RD loan/grant. Estimated debt payments are included in the debt summary.

**Millers Falls Priority 2 is just outside the 5-year window but included for illustrative purposes.

***Sewer re-lining program in the *Draft Capital Plan* is \$400,000 in each FY25, FY26, FY27, FY28, FY29 for a total of \$2M. It was combined into one project for efficiency of project completion and reducing debt issuance costs.

Table 3

Clean Water Facility Capital Projects*	FY24	FY25	FY26	FY27	FY28	FY29
Estimated debt payment	\$78,568	\$94,948	\$ 241,218	\$341,939	\$341,937	\$464,164

*Clean Water Facility debt is 100% supported by the Sewer Fund

Absent substantial revenue growth, which is unlikely, the above projects and related cost estimates will have a substantial impact on sewer user costs. They do not, however, include the costs necessary to perform a more comprehensive upgrade of the CWF, which is outside its design life and will need significant investments in the coming decade. This latter need cannot be discounted, as the basic function of the CWF facility is a singularly important foundational requirement for regulatory compliance. Montague has not begun planning for these comprehensive improvements and therefore does not have project cost estimates to include in the Capital Plan.

Short-Term CSO Projects and Schedule

Montague proposes to use the Short-Term Recommendations outlined in the Hydraulic Modeling Summary technical memorandum (Appendix G of the CSO Long-Term Control Plan, updated June 2023) as a basis for focusing CSO mitigation efforts in the near term. Table 7 below, which is a snapshot from the Hydraulic Modeling Summary technical memorandum, describes and illustrates the estimated costs of these projects. The Town is aggressively pursuing a range of grant opportunities to reduce the costs of these projects, which it is committed to implementing. Note that the need for and benefits associated with these projects are further described in the Hydraulic Modelling Summary technical memorandum prepared by engineering consultant Wright-Pierce. Failure to gain grants for these or other CWF capital projects could impact project schedules in the years to come, but the Town is confident in its ability to secure required funding.

Table 7 Short-Term Recommendations – Budgetary Planning Level Costs

Short-Term Recommendations	Order of Magnitude Cost
Avenue A buffer line improvement project	\$300,000
Evaluate and/or confirm peak capacity of CWF WWCT and primary treatment	\$30,000
Hydraulic modeling	\$100,000
Design and construction of upstream I/I reduction projects (Priority 1 and Priority 2 projects in Turner’s Falls)	\$1,200,000
Total	\$1,750,000 (rounded)

Table 4 is a more detailed summary of Capital Infrastructure Projects that the Town intends to implement to mitigate CSOs. It is anticipated that these projects’ costs will be split 60/40 between the CWF Enterprise Fund and the Town. The table presents current and projected costs upon which debt would be based, as well as the expected year of project implementation (date of first debt payment). It is projected that Montague will fund the evaluation and hydraulic modeling activities from reserves, and as such their costs are not included in the debt schedule. Table 5 presents a summary of the *Clean Water Facility’s* estimated annual debt payments for Table 4’s projects, purposefully not including the Town’s share of debt obligations for the purpose of this analysis.

Table 4

Capital Infrastructure Projects (Funded Through Debt)	Current Project Cost Estimate	Projected FY Debt Payment	Future Project Cost Estimate
Avenue A buffer line*	\$300,000	FY25	n/a
Turners Falls Priority 1	\$781,200	FY26	\$805,000
Turners Falls Priority 2	\$388,700	FY28	\$425,000

*Avenue A project does not appear in *Draft Capital Plan*. It is indicated as a Short-Term Priority in the Hydraulic Modeling Summary Report

Table 5

CWF CSO Infrastructure Cost*	FY24	FY25	FY26	FY27	FY28	FY29
Estimated CWF-share of Debt Payment	\$ -	\$11,168	\$41,136	\$41,136	\$56,958	\$56,958

*Infrastructure debt is split 60/40 between CWF and General Fund. Figures are CWF-only liability. This table does not present the full 20-year debt schedule estimated for these projects

Long-Term CSO Separation Project Schedule

Montague’s ultimate goal is to achieve sewer separation, eliminating any potential for CSO events, regrettably, the economics of that course of action remains a long-term project. The above debt projections do not include the substantial sums required to study and design sewer separation (\$4.25M) or the \$25M needed to implement system separation to eliminate the potential for CSOs. Table 8 below, which is a snapshot from the Hydraulic Modelling Summary technical memorandum (Appendix G of the CSO Long-Term Control Plan, updated June 2023), presents long-term recommendations and present-day estimations of cost for sewer separation design and construction, as presented in the Hydraulic Modelling Summary technical memorandum.

Table 8 Long-Term Recommendations – Budgetary Planning Level Costs

Long-Term Recommendations	Order of Magnitude Cost
Sewer Separation Study / 30% Preliminary Design Report ¹	\$1,750,000
Additional I/I and SSES, Field Investigations, Flow Metering	\$300,000
Hydraulic modeling	\$200,000
Design and construction of future upstream I/I reduction projects	\$2,500,000
Sewer Separation Project (Multiple Phases) ²	\$20M-\$25M
Total	\$25M-\$27M (rounded)

¹ Based on 16,000 LF of sewer separation in Turner’s Falls. Includes topographic survey, field investigative work, geotechnical investigations, report development, OPCC development, and 30% drawings.

² Based on 16,000 LF of sewer separation in Turner’s Falls. OPCC will be developed as part of the Sewer Separation Study / 30% Preliminary Design Report.

Table 6 shows estimated annual payments for a \$27M sewer separation construction project using two different potential funding sources; estimates do not include potential principal forgiveness or grant opportunities. And again, these estimates are based on present-day costs *prior to* undertaking any preliminary or final design engineering. Because of this, costs are very likely to increase substantially.

Table 6

Funding Source	Estimated Annual Payment for \$27M* project
CWSRF 20-year, 2.0% interest, 0.15% admin**	\$1,551,139
CWSRF 30-year, 2.4% interest, 0.15% admin**	\$1,202,419
USDA-RD 40-year, 2.25% interest ***	\$951,435

*Current project cost estimate. Has not been inflated to account for projected construction year

**Current MA CWSRF interest and admin fee rates. Subject to change

***Adjusts quarterly

As indicated in the previous section, the addition of \$100,000/year in debt service will increase user rates by over five (5) percentage points. At the highest annual debt payment presented in Table 6, above, this would equate to a 75% rate increase for the construction portion of the CSO separation project alone. The implications of precipitous increase in rates to their present level, coupled with substantial ordinary capital replacement and repair costs present a daunting scenario as further borrowing or PAYGO is considered to support CSO elimination.

Making financial matters more challenging is that existing debt obligations of both the General Fund and the CWF Enterprise Funds are relatively new. Regarding CWF debt, the burden does not begin to diminish until FY34, so there is little near-term opportunity to backfill maturing debt with new. This makes undertaking the infrastructure improvements necessary in an ageing system challenging, if not insurmountable. The Town’s best (most feasible) option is likely to wait to advance the long-term CSO projects until the middle of the next decade unless substantial grants or highly subsidized loans are obtained.

Availability of grants to support long-term objectives is uncertain due to the magnitude of cost. However, the Town is aggressively pursuing state grants through the Massachusetts One-Stop Opportunities for

Growth program and through a Congressionally Directed Spending request, which offer the potential to substantially support the Short-Term projects described in the LTCP and highlighted in Tables 7 and 4 above. Each of the above-referenced grant requests has been submitted, with outcomes to be known in fall and winter 2023-2024, respectively.

Conclusions

Montague proposes to implement the Short-Term Recommendations on the schedule described in Table 7, as the Wright-Pierce Hydraulic Modeling Summary technical memorandum suggests they will be effective measures to reduce CSO event frequency in the near-term. The Town is committed to these improvements and to conducting the additional hydraulic modeling study that is included in that schedule. This study will clarify whether modelled changes to the CWF facility's influent pipe are an advisable approach to further mitigating CSO events at the Greenfield Road outfall location – or whether changes to the plant must first be implemented. The results of this study will inform the next iteration of the Town's LTCP.

In addition, Montague intends to undertake sewer lining projects on a schedule presented in Table 2. The benefits of this work are manifold, as it will increase system reliability and reduce I/I, with benefits to CSO mitigation also anticipated. Long-term, Montague intends to fund studies to address complete sewer separation beginning in FY2034, which will provide time for existing debt—much of which was for past CSO projects—to mature.

We believe the intended schedule of improvements properly balances three imperatives, which include the need to reduce CSO events, the need to address CWF and collection system capital needs to ensure basic system functionality, and the need to reduce impacts on rate payers who have recently experienced a doubling of their rates. These ratepayers are residents of one of the poorest communities in the poorest county in the state—meaning they have truly limited capacity to pay—and where population and business investment trends do not suggest a likelihood of growth that would support sharp increases in revenue through new consumption.

This balance of interests reflects the conclusions of this Financial Capacity Analysis. Montague and its CWF Enterprise Fund are in a tenuous financial position, but there is a commitment to progress through remediation. That progress will rely on a strategic approach to project prioritization, effective grant-making, and strategic use of low-interest loan programs combined with grants and subsidies such as CWSRF principal forgiveness programs.

This Financial Capacity Analysis was performed by Quantified Ventures through a partnership with the New England Water Infrastructure Network, a program of the New England Environmental Finance Center.