



September 17, 2020

Michael Mastrobuoni
Budget Manager
93 Highland Ave
Somerville, MA 02145

Subject: **Somerville Water and Sewer Rate Study**

Dear Mr. Mastrobuoni:

Stantec Consulting Services Inc. (Consultant) is pleased to continue providing professional consulting services to the City of Somerville (City). We are proud of our tenure and success providing engineering, modeling evaluations, and expert related services to the City of Somerville. This Task Order involves the completion of a comprehensive water and sewer utility rate study. The study will include the development of a long-term financial plan, supported by a financial model, evaluation of the City's current water and sewer rate structures and potential alternatives, implementation plans and review of billing practices, an affordability assessment and study reporting. The scope of work is designed to provide the City with a multi-year framework to support the ongoing financial health of the utility and to provide fair and equitable water and sewer rates.

WORK TASKS:

Project Management and Administration

The Consultant will coordinate contractual issues with the City; monitor and coordinate workload, staffing, and schedules and budgets; and will coordinate duties and invoices for an anticipated duration of 7 months. For the 7-month duration during the progress of this phase of the work, the Consultant will prepare monthly invoicing per Client standards including Contract Amount, Amount Expended During the Reporting Period, Total Amount Expended and Amount Remaining.

In addition, the Consultant will perform a quality control review of all deliverables to the City. The review will include an independent review, and a team coordination review.

Task 1. Study Kickoff and Data Collection/Review

The Consultant will coordinate a project kickoff conference call with the City to discuss all aspects of the study. Prior to the kickoff call, the Consultant will provide a data request, identifying the data required to complete the study. The data request will include a detailed listing of the operational, financial and customer data necessary to complete the study. The Consultant's scope of work assumes that the data necessary for the study will be provided by the City and that the Consultant will not be required to create any datasets. The Consultant will review the data provided by the City to identify any data gaps or issues within the data.

Task 1 Deliverables:

The Consultant will provide the City with a detailed data request and kickoff meeting agenda.

Task 2. Water and Sewer Utility Financial Forecast / Modeling

The Consultant will prepare an analysis to determine the annual revenue requirements to support utility operations, including capital spending. The revenue requirements will be developed utilizing our financial model over a 10-year projection period and will incorporate historical supporting revenues and expenditures to allow for trending analysis. The Consultant will use the financial model to develop alternative long-term financial management plans for each the enterprise funds and will identify projected annual revenue requirements and rate adjustments for customers of the water and sewer systems.

As part of the analysis, the Consultant will examine growth in customer and water use trends, alternative capital spending levels, debt service coverage ratios, levels of operating and capital reserves, and other financial policies that drive the revenue requirements of the utility. The Consultant will use the financial model to examine the impact of planned capital improvements and to evaluate the impacts of alternative projects, costs, timing, and funding sources. For all scenarios, the financial model will develop a funding plan, including the identification of the amount, timing, and type of borrowing (GO bonds, Mass SRF, MWRA loan programs and other potential financing vehicles) required as may be necessary. The Consultant will examine the utility's use of debt versus cash financing for capital improvements and build a financing plan to support a sustainable balance of debt coverage and rate stabilization. The financial plan will include modeling of a fully functioning water meter replacement program and its impacts on utility collections.

The financial model will be developed to allow for modeling of the financial interrelations between wastewater services and the implementation of a standalone stormwater utility. This is especially pertinent given the combined nature of the systems.

The Consultant will also review existing financial policies and objectives for the utility. These policies will be used to provide metrics and targets for evaluation of various financial management plans.

The Consultant will conduct four interactive work sessions with City staff to evaluate the results of the financial modeling scenarios. The work sessions will be used to support the FY22 budget process.

Task 2. Deliverables:

The Consultant will provide the City with a licensed copy of our Excel-based financial model or can provide the City with our online financial model with one year of free access and support as part of the study.

Task 3. Rate Design

The City currently maintains water and sewer rate structures that include a base charge and a volumetric usage rate. The volumetric usage rates are structured as inclining block rates for both water and sewer. The quantity of billed water and sewer in each rate tier differs between residential and commercial customers.

To complete Task 3, the Consultant will evaluate the City's current water and sewer rate structures. The rate structures will be evaluated based on conformance to the City's pricing goals and objectives, industry standards, customer equity, each customer classes use of the system and defensibility. To help inform the review, the Consultant will conduct an interactive work session with City staff to review the current structure and potential concerns with the City.

Based on the review of the current rate structure, the Consultant will develop alternative rate structures that would be designed to better align the utility rates with the City's goals and objectives and industry standards. The rate structures will include potential modifications to both the fixed and variable components of the water and sewer rates, including the amount of revenue collected from each portion of the structure. The rate structure options will include examination of multi-unit factoring for multi-unit utility accounts. The multi-unit factoring will be considered for both the fixed and variable components of the rate structure for multi-unit accounts.

The pros and cons of each rate structure will be provided including items such as revenue volatility, customer understanding, administrative requirements, defensibility and the ability of the City to implement the structure. Each of the rate structure alternatives will be designed to be revenue neutral and will be informed by the financial forecast developed during Task 2. The Consultant will develop a total of 4 alternative rate structure under this scope of work.

For each rate structure considered for the study, the Consultant will provide an analysis of the impacts to each customer class within a complete bill tabulation (i.e. for billing simulation for all customers under each alternative), including summary level analysis.

Throughout this process, the Consultant will work closely with staff to evaluate the best ways to structure the rates, while minimizing the impact to customers and keeping affordability in mind. To the extent that significant changes are necessary, the Consultant will develop a recommended implementation plan for the alternative rate structure. The plan will be designed to limit the one-time impact to customers and allow for a gradual transition. The implementation plan will be coordinated with any necessary overall increases in revenues as defined in Task 2.

Task 3. Deliverables:

The Consultant will provide the City with modeling output that demonstrates the impacts in a full customer bill tabulation as well as in relevant graphical formats for each of the four rate structure alternatives. The Consultant will provide a technical memorandum that summarizes the pros and cons of each rate structure alternative and includes a recommended implementation plan.

Task 4. Billing Practices and Billing Organizational/Staffing Review

The Consultant will review the current water and sewer billing practices in place within the City. The review will include how the City classifies customers, the billing frequency for each customer class and how the City currently bills mixed use and multi-family customers. Based on the review, the Consultant will provide recommendations for modifications to the City's current practices.

To support the potential changes in the billing practices, the Consultant will provide the City with best practices for the City's utility billing organizational structure, staffing size and typologies to allow for the implementation of the recommended billing practices. Sample job descriptions for the identified positions will be provided. The best practices will be developed based on the Consultant's utility industry experience and benchmarking of comparable cities billing organizational structure and staffing.

Task 4. Deliverables:

The Consultant will provide a technical memorandum that provides an overview of the billing practices review, the utility billing organizational structure/staffing analysis and recommendations.

Task 5. Affordability Assessment Analysis

The Consultant will complete an affordability assessment analysis for the City's service area. In addition to the typical basic affordability metrics outlined by EPA (water and sewer bills as a percentage of median household income across the entire service area), the Consultant will complete an assessment using the Weighted Average Residential Indicator (WARI®) approach. The WARI® approach uses actual bills to determine a typical bill for each census tract based on income distribution among the tracts and presents the affordability of water and sewer service on a census-by-census tract level. The Consultant will provide the results of the WARI® analysis using maps to demonstrate those areas of the City that may be facing affordability challenges. Additionally, the Consultant will provide the results (i.e. maps) with current rates and what the WARI® results would be in the future based on the results of the financial forecast developed in Task 2 as well as under alternative rate structures defined in Task 3.

In addition to the WARI® approach, the Consultant will evaluate water and sewer affordability using metrics recently developed within the industry include the affordability ratio at the 20th income percentile (AR20) and hours worked at minimum wage (HM) to pay a water and sewer bill.

The affordability analysis will assist the City in understanding financial hardship in the community by identify customers most at risk both now and in the future, such that suitable assistance programs can be targeted. However, the Consultant's scope of work does not include development of a specific customer assistance program.

Task 5. Deliverables:

The Consultant will provide the City with affordability results in tabular and graphical format including heatmaps by census tract. The affordability assessment will be documented for current and future rates under each rate alternative and financial plan.

Task 6. Rate Study Report

The Consultant will document the analysis in a concise rate study report outlining the approach, assumptions, findings and key considerations. The report will document analysis completed for each task, including specific recommendations based on the results of the study. A draft of the report will be provided to City staff for review and comment. The Consultant will address any input provided by City staff and provide a final report to document the study.

Task 6. Deliverables:

The Consultant will provide a rough and final draft of a comprehensive rate study report outlining the study.

Task 7. Stakeholder Engagement

The Consultant will develop presentation materials documenting the study. The presentation materials will document the approach, assumptions, findings and key considerations. The presentation will be reviewed with City staff during web conference call. Necessary modifications will be made as necessary and a final presentation will be provided. The Consultant will be available to present the presentation at a City Council meeting if desired by the City.

Task 7. Deliverables:

The Consultant will provide a rough and final draft of presentation for presenting the results of the study to the City of Somerville City Council.

SCHEDULE:

Stantec will initiate the proposed work tasks immediately upon receipt of an executed copy of this agreement/Notice-to-Proceed. The study will be completed over a 7-month period with completion in April in support of the City's annual budget process.

COMPENSATION:

Our estimated fee to complete Tasks 1 – 7 as outlined in this scope of work is \$89,340.

INVOICES:

Stantec will invoice the City monthly during the performance of our services. The amount of each invoice will be based on time and labor rates for each work task at the time of work performance.

If you have any questions or comments pertaining to this Task Order, please contact David VanHoven at 617-314-7122 or david.vanhoven@stantec.com. We remain excited with our partnership with Somerville.

Regards,

STANTEC CONSULTING SERVICES INC.

David VanHoven, PE, PMP
Team Leader

ACCEPTANCE OF THIS TASK ORDER:

If the City of Somerville agrees with proposal, the City of Somerville shall authorize Stantec to perform the work by signing and returning a copy of the attached Task Order. This Task Order is under the terms and conditions of the [REDACTED] executed between the Consultant and the City dated [REDACTED].

Michael Mastrobuoni
Budget Manager
City of Somerville



City of Somerville

Water and Sewer Rate Study

Project Work Plan and Cost Estimate Schedule

Project Tasks	Estimated Labor-Hours					Total Project Hours	Total Project Costs
	Tech Specialist	Project Manager	Sr. Consultant	Consultant	Analyst		
	Hyder	VanHoven	Stevens	Kloeckner	Silence		
	Resources → Hourly Rates →						
Task 1 Study Kickoff, Data Collection and Project Management	8	8	4	8	8	36	\$7,040
Task 2 Water and Sewer Utility Financial Forecast / Modeling	12	4	22	26	40	104	\$18,200
Task 3 Rate Design / Customer Impacts and Implementation Plan	14	0	18	26	28	86	\$15,400
Task 4 Billing Practices and Billing Organizational/Staffing Review	18	2	18	24	32	94	\$17,080
Task 5 Affordability Assessment	12	0	14	16	40	82	\$13,960
Task 6 Rate Study Documentation	8	4	10	12	16	50	\$9,160
Task 7 Stakeholder Engagement	8	4	12	10	10	44	\$8,500
Total Estimated Labor Hours / Cost	80	22	98	122	174	496	\$89,340