

FINAL REPORT

PREPARED BY HEMSON FOR THE TOWN OF GEORGINA

TOWN OF GEORGINA WATER AND WASTEWATER RATE STUDY

August 29, 2024



1000 - 30 St. Patrick Street, Toronto ON M5T 3A3
416 593 5090 | hemson@hemson.com | www.hemson.com

CONTENTS

EXECUTIVE SUMMARY	1
1. BACKGROUND AND STUDY OBJECTIVE	4
A. Background	4
B. Study Objective	4
2. DEMAND ANALYSIS	6
A. Growth Forecast	6
B. Projection of New Connections	7
C. Consumption Forecast	8
3. OPERATION AND MAINTENANCE COSTS	9
A. Operating Expenditures	9
B. Non-User Rate Revenues	13
4. INFRASTRUCTURE AND CAPITAL	14
A. Capital and Contributions to Reserves	15
5. RATE STRUCTURE ANALYSIS	19
A. Issues to Consider	19
B. Moving Forward	20
6. CALCULATED RATES	21
7. RECOMMENDATIONS AND FINDINGS	26
APPENDIX A	27

EXECUTIVE SUMMARY

The Town of Georgina's water and wastewater systems provide service to municipal residents and the non-residential customer base through an extensive municipal network valued at \$462 million. The Town of Georgina is responsible for the costs of distribution, maintenance, and general operations of maintaining the system and charges utility rates to the end-users directly based on the principles of full-cost recovery.

The Town has initiated this Water and Wastewater Rate Study as part of its 5-year review of the water and wastewater rate forecast. The scope of the assignment is to deliver a long-term water and wastewater financial recovery plan to fund current and future operations (direct and indirect), growth related capital expansion (and associated financing costs), and the rehabilitation and eventual replacement of existing infrastructure. Furthermore, the analysis will ensure that the water and wastewater rate structure will allow the Town to meet its financial obligations and ensure long-term sustainability.

In undertaking the analysis, a long-term financial planning model covering a ten-year period from 2025 to 2034 was developed, with 2024 as a budget base year. As the Town is moving into a period where substantial growth is anticipated and cost and revenue assumptions can change, it is recommended that the Town review the rate study every five years as details surrounding growth and costs become more refined. Although this analysis includes the ten-year period, Town staff and Council should consider the immediate three-to-five years for rate setting purposes. The analysis was prepared using 2024 budget information to inform new utility rates for 2025 as the 2024 rates were already approved by Town Council prior to initiating the study. The study recommends that utility rates increase to fund operating costs, the non-growth capital program and also makes a provision to reserves for future asset repair and replacement.

The key proposed changes include:

- For 2025, the water capital charge is proposed to increase by 17.0% while the consumption charge would increase by 12.5%. For wastewater, the capital charge is proposed to increase by 15.0% while the consumption charge would increase by 4.5%.
- Section 6 and Appendix A provide a detailed breakdown of changes in capital and consumption charges for water and wastewater over the 10-year planning period.
- No changes to the Town's rate structure are proposed in this update, however recovery from the capital recovery charge is proposed to gradually increase over the 10-year period from about 9% in 2024 to 15% in 2034.

Taking into consideration the key changes above, the full cost recovery rate analysis reveals:

- The required user rate revenue in 2025 is forecast to be about \$9.8 million for water and \$10 million for wastewater. This is the amount of revenue that must be collected through the sale of water to fully recover the operating, capital, rehabilitation and replacement costs of the water and wastewater systems.
- Over the long-term, the net rate funding requirements for both the Town's water and wastewater systems are expected to increase. The cost increases can largely be attributed to carrying out the capital asset repair and replacement program, increasing operational costs, increasing water supply costs from York Region as well as increased capital asset management contributions. The water and wastewater net rate funding requirements are projected to increase to about \$18.1 million and \$15.2 million respectively by 2034.

In order for the Town to recover the costs associated with providing these services, necessary adjustments to the utility rates are required. The table below provides a snapshot of the calculated utility rates required over the immediate 5-year calculation period (post 2024). A few important findings and considerations:

- On average, the typical bill increases for a household consuming 165 m³ would be approximately 7.5% per annum over the 5-year period. The average bill increases over the first three years would be at approximately 9% per annum before moderating at 5% per annum in 2028.
- The Town maintains sufficient reserves over the planning period to manage expenses. By 2034, the analysis estimates the reserve balances to be approximately \$17.3 million and \$7.0 million for water and wastewater, respectively. That being said, due to the significant capital requirements in the short-term and continued cost pressures on the operating budget, the reserves are maintained at stable and near current levels for the next few years with much of the reserves accumulating towards the end of the planning period. The balances may be reduced if any rate-funded capital projects are added to the 10-year capital plan above what has been identified.

Calculated Utility Rates (5-Year Projection)					
Service Type	2025	2026	2027	2028	2029
Water Services					
Fixed Capital Charge:					
\$/Monthly	\$5.77	\$6.76	\$7.90	\$9.09	\$10.00
<i>Change (%)</i>	<i>17.0%</i>	<i>17.0%</i>	<i>17.0%</i>	<i>15.0%</i>	<i>10.0%</i>
Consumption Charge: \$/m³	\$3.49	\$3.92	\$4.41	\$4.63	\$4.87
<i>Change (%)</i>	<i>12.5%</i>	<i>12.5%</i>	<i>12.5%</i>	<i>5.0%</i>	<i>5.0%</i>
	\$645	\$728	\$823	\$874	
Wastewater Services					
Fixed Capital Charge:					
\$/Monthly	\$5.60	\$6.44	\$7.08	\$7.62	\$8.19
<i>Change (%)</i>	<i>15.0%</i>	<i>15.0%</i>	<i>10.0%</i>	<i>7.5%</i>	<i>7.5%</i>
Consumption Charge: \$/m³	\$3.54	\$3.70	\$3.87	\$4.00	\$4.14
<i>Change (%)</i>	<i>4.5%</i>	<i>4.5%</i>	<i>4.5%</i>	<i>3.5%</i>	<i>3.5%</i>
Wastewater Bill (165 m³/annum)	\$652	\$688	\$723	\$752	\$782
<i>Change (%)</i>	<i>5.5%</i>	<i>5.6%</i>	<i>5.1%</i>	<i>4.0%</i>	<i>4.0%</i>
Total Water & Wastewater					
Total Typical Bill (165 m³/annum)	\$1,296	\$1,417	\$1,546	\$1,626	\$1,705
<i>Change (%)</i>	<i>9.1%</i>	<i>9.3%</i>	<i>9.2%</i>	<i>5.1%</i>	<i>4.9%</i>

Staff have been provided with the utility rate setting full-cost model to monitor costs and revenues and assist with future rate updates. It is recommended the Town undertake a comprehensive review every three to five years to ensure that a nexus between costs and revenues is maintained over time and that rates remain competitive with surrounding municipalities.

1. BACKGROUND AND STUDY OBJECTIVE

A. BACKGROUND

The Town of Georgina provides potable water and distribution services to residents while also providing wastewater collection and treatment services. As of 2024, Georgina provides water services to approximately 13,900 customers. Georgina's water is treated and supplied by York Region. The Town's water runs through a network consisting of two booster stations as well as distribution infrastructure including hydrants, valves, and linear pipelines. The Town's wastewater collection system consists of 20 sanitary pumping stations and wastewater linear assets that transfers collected wastewater to the Region's treatment plant. The Town is responsible for all monitoring, quality assurance, quality control, reporting, inspecting, collection and maintenance of the water and wastewater networks. The water and wastewater infrastructure is extensive, valued at \$462 million.

The Town's water and wastewater systems are built and maintained to meet all regulatory standards of quality and to minimize environmental impacts. Maintaining these systems to regulatory standards requires significant operating and capital investment on an ongoing basis. Therefore, the Town funds its water and wastewater costs through user fees charged to its customers on the basis of a full cost recovery system. The fee structure for water and wastewater services in the Town includes a uniform fixed charge, called the Capital Cost Recovery Charge, and volumetric based charge for each cubic metre of water consumed. Water bills are issued quarterly for residential properties and monthly for commercial properties.

Consistent with the requirements of the *Safe Drinking Water Act, 2002* (the SDWA) and its associated regulation *Ontario Regulation 453/07* (O. Reg. 453/07), the Town completed its last Water and Wastewater Rate Study and Financial Plan in 2020. Therefore, this Water and Wastewater Rate Study is a major update to the work completed in prior years and calculates full cost recovery water and wastewater rates to maintain both systems in a sustainable way. Water and Wastewater Financial Plans consistent with *Ontario Regulation 453/07* are informed by the information developed through this rate study and available under separate cover.

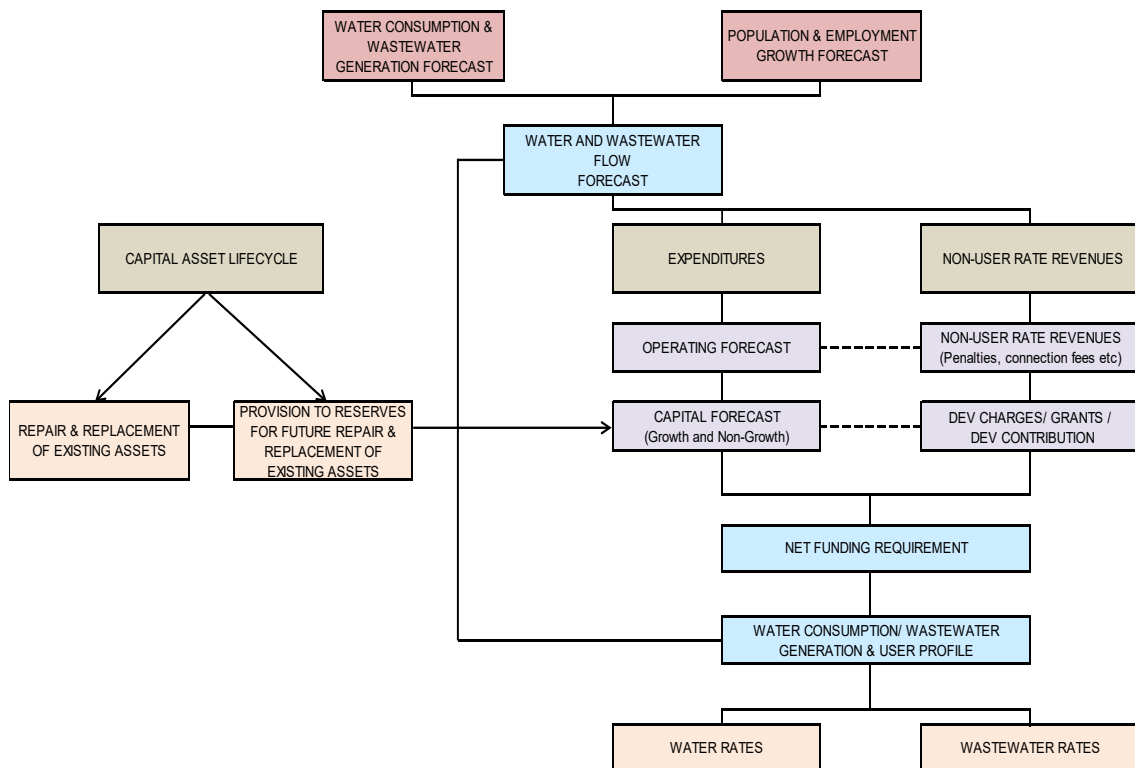
B. STUDY OBJECTIVE

The objective of this study is to review the existing rate structure and calculate full cost recovery rates consistent with the Town's overall cost recovery policies. The rates are expected to be brought forward annually for formal approval through the Town's regular budget process.

The first step in the study is to establish a forecast of new users as this is the basis for determining anticipated water consumption and wastewater generation levels. The study examines the forecast period from 2025 through 2034. The study and analysis were prepared using 2024 budget information and uses 2024 as a base year. Following the demographic analysis, the current water and wastewater rates, reserves and annual operating and capital budgets are analyzed. Based on this analysis, the financial position of the Town’s water and wastewater systems is determined. The next step in the study process is to examine the existing rate structure and calculate full cost recovery rates. The final step in the process is to evaluate the impacts of implementing the full cost recovery rates to the residents of the Town.

In undertaking this analysis, an Excel financial model was developed and serves as a dynamic rate setting tool. Using the model, the Town is able to perform sensitivity analyses of the water and wastewater rates. The model calculates future capital expenditure requirements and projects future operating and maintenance costs. It also calculates the water and wastewater rates necessary to recover the full costs of the water and wastewater systems. The following diagram (Figure 1) illustrates the overall approach.

Figure 1: Utility Rate Setting Model

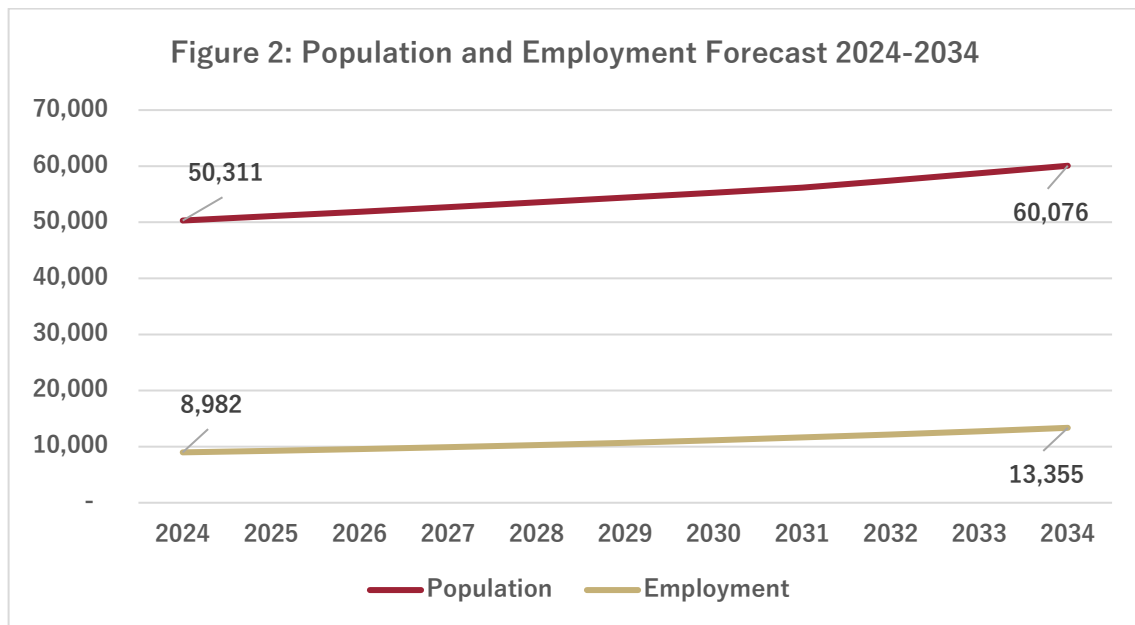


2. DEMAND ANALYSIS

Demand from water consumers will primarily drive future costs of the Town's water and wastewater systems. Therefore, a forecast of future demand has been developed to inform this analysis.

A. GROWTH FORECAST

The population and employment projections used in this study were based on the Town's 2021 Development Charges Background Study. The Town's current estimated census population of approximately 50,300 persons is expected to increase to about 60,000 persons by 2034. Furthermore, the number of employees in Georgina is expected to increase from approximately 9,000 in 2024 to approximately 13,400 employees by 2034 (excluding work at home) and most residential and non-residential growth is expected to occur in the urban serviced areas of the Town. Figure 2 below illustrates the projected growth in population and employment over the planning period.



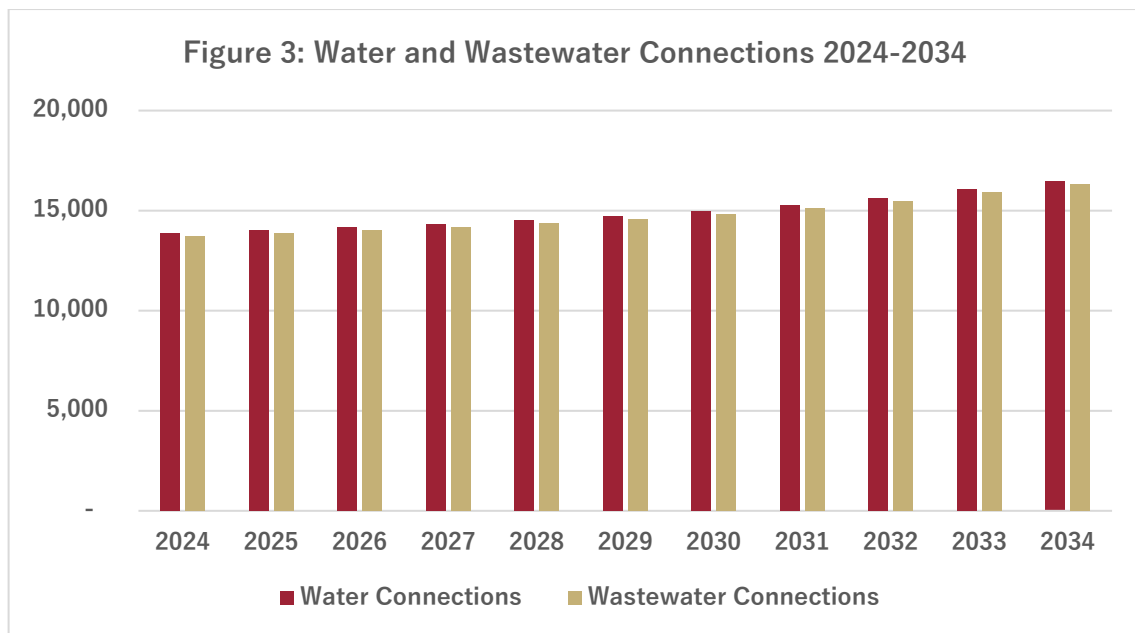
Note: Population reflects census population. Employment based on "place of work" which excludes "work at home." Estimates are based on the Town's 2021 Development Charges Background Study.

B. PROJECTION OF NEW CONNECTIONS

The consumption and connection data from the previous five years (2019-2023) and discussions with Town staff regarding future development activity, helped inform the forecast of new connections contained in this study.

It is estimated the Town will have about 13,850 billable connections that are anticipated to receive water services in 2024. By the end of the planning period, in 2034, it is expected that the number of billable water connections will increase to about 16,450 which equates to an average increase of 260 new water connections per year over the planning horizon.

Of note, there are slightly fewer customers who receive wastewater services in the Town—estimated to be about 13,700 connections in 2024. That said, the growth increment assumed for wastewater connections is the same as water for the purposes of this study (equal to about 260 new connections per year) as it is assumed that all new customers resulting from future development growth would be connected to both water and wastewater services. Figure 3 below shows the projected water and wastewater connections over the next 10-year period.

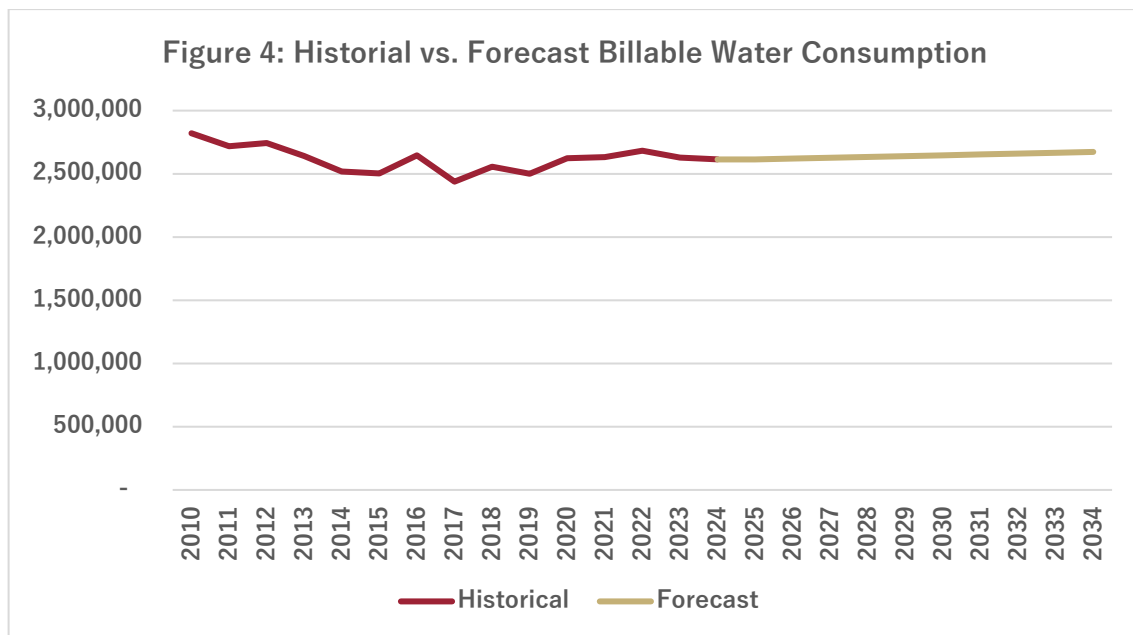


C. CONSUMPTION FORECAST

To develop the water and wastewater demand forecast over the planning period to 2034, a review of actual metered consumption from 2010 to 2023 was undertaken. For the purpose of setting utility rates, only the water that is billed to the end-user is incorporated into the analysis and used to calculate utility rates. This is referred to as billable (or metered) water and includes all residential and commercial consumption.

Figure 4 illustrates the historical patterns and forecasts of water demand throughout the planning period to 2034. In 2024, the Town is estimated to bill about 2.61 million m³ of water. Total consumption for water is expected to grow to about 2.67 million m³ of water by 2034 driven by new development in the Town. Overall, for the purposes of the forecast, the total billed consumption is moderated in the early years of the forecast to reflect a general decline in consumption per connection seen across many municipalities as continued environmental stewardship practices to conserve water takes shape and more traditional consumption trends observed pre-pandemic are realized. This pattern is evident in the Town from a consumption per connection perspective, in 2010 consumption per connection was about 230 m³ while in 2023 it is about 171 m³. Despite the stabilized consumption projected, billable consumption is projected to increase slightly over the planning period as a result of the new growth anticipated to take place to 2034.

Details regarding the connections and forecast of consumption for the water and wastewater systems are set out in the detailed rate calculations illustrated in Appendix A.



3. OPERATION AND MAINTENANCE COSTS

The Town of Georgina incurs costs to ensure the utility systems are operated in accordance with Provincial legislation that guarantees safety and quality. Operating expenditures include salaries and benefits, materials, contracts, services, hydro, utility costs, debt-servicing costs and costs associated to water supply and wastewater collection from York Region.

A. OPERATING EXPENDITURES

Table 1 summarizes the total forecasted operating expenditures for water services. The total operating expenditures for the water system in 2024 were budgeted to be about \$9.2 million and anticipated to increase to \$13.4 million by 2034.

TABLE 1: FORECAST OF WATER OPERATING EXPENDITURES (\$000)					
Expense Category	Inflation Factor	2024 Budget	2025 Projected	2029 Projected	2034 Projected
Operating Expenditures	3.0% - 5.0%	\$2,996.0	\$3,541.6	\$4,110.4	\$4,960.2
Regional Charges	3.0% - 5.6%	\$4,788.7	\$5,255.3	\$6,073.6	\$ 7,094.9
Debt Payments	-	\$1,372.1	\$1,552.2	\$1,654.0	\$1,013.9
New Initiatives and Adjustments	-		\$155.5	\$275.0	\$353.9
Total		\$9,156.8	\$10,504.6	\$12,113.0	\$13,422.9

Table 2 summarizes the total forecasted operating expenditures for wastewater services. The total operating expenditures for the wastewater system in 2024 is budgeted to be about \$9.5 million and are expected to increase to about \$12.5 million by 2034.

TABLE 2: FORECAST OF WASTEWATER OPERATING EXPENDITURES (\$000)					
Expense Category	Inflation Factor	2024 Budget	2025 Projected	2029 Projected	2034 Projected
Operating Expenditures	3.0% - 5.0%	\$2,154.7	\$2,328.0	\$2,669.6	\$3,171.7
Regional Charges	1.7% - 2.9%	\$6,549.7	\$6,923.1	\$7,366.5	\$8,605.2
Debt Payments	-	\$749.2	\$749.2	\$267.0	\$267.0
New Initiatives and Adjustments	-		\$207.0	\$378.7	\$471.8
Total		\$9,453.6	\$10,207.3	\$10,681.8	\$12,515.7

The escalation in costs for both water and wastewater over the long-term can generally be attributed to:

- a general increase in operational expenditures due to inflation;
- increased Regional water purchasing and wastewater treatment costs;
- an increase in debt funded debt payments over the short-term needed to undertake repair and replacement works and to maintain adequate reserve levels;
- Including a provision to budget for regular bill adjustments; and
- the inclusion for new initiatives, which may be required in order for the Town to continue to adapt to ongoing legislative requirements, customer demands, and potential increased costs associated with the new growth in connections anticipated over the period.

i. General Operating Expenditures

Using the Town's 2024 operating budget and preliminary 2025 budget, operating expenditures are assumed to increase annually by an adjustment factor depending on the expense category. Salaries, employee benefits, supplies, maintenance, and other direct expenses are assumed to increase at an annual rate of 3%. Contracted services are assumed to increase at 4% per annum while utility costs are assumed to increase at 5% per annum. All remaining operating costs are assumed to increase at 3% per annum. Notably, one time adjustments using the preliminary 2025 budget have been included in the forecast which could result above the adjustment factor identified above.

ii. York Region Water Purchasing and Treatment Costs

In order to provide water and wastewater servicing to the community, the Town relies on the Region of York for the supply and treatment of water. The Town is required to purchase water from the Region for all treated water to be distributed to end users. The Town then recovers those costs, as well as the costs of distribution, maintenance, and general operations by charging the users connected to the system directly.

- The projection of water supply and treatment costs from the Region is based on projections for rate increases by the Region. The rate increase by the Region is expected to be about 5.6% per year in 2025 through to 2027 decreasing to 2.9% per year thereafter. The Town is projected to incur about \$4.8 million in Regional water costs in 2024. This amount is expected to increase to about \$7.1 million by 2034.

- The projection of wastewater collection and treatment costs from the Region is similarly based on projections for rate increases by the Region. The rate increase by the Region is expected to be about 1.7% per year in 2025 to 2027 increasing to 2.9% per year thereafter. The Town is projected to incur about \$6.5 million in Regional water costs in 2024. This amount is expected to increase to about \$8.6 million by 2034.

Not all water purchased from the Region is charged out to the end user. Non-revenue water¹ is water that is purchased from the Region and not charged to any end users and represents a cost to the Town that is not recuperated.

The amount of non-revenue water in Georgina has averaged approximately 23% of water supplied over the past 5-years² but reaching a high of 25% in recent years. It is anticipated that the average loss will decline over the immediate 5-year period. As targeted water programs and capital renewal requirements take form, non-revenue water is projected to be reduced to about 23% by 2029 and remain stable to 2034. This would in turn reduce the amount of water required to be purchased from the Region.

iii. Debt - Principal and Interest Payments

The Town has existing rate funded debt obligations for both water and wastewater services. In 2024, the Town will make principal and interest payments of about \$1.4 million for water and \$749,000 for wastewater. The term of the Willow Beach debenture will end by 2026 while the term for the Dalton Road debenture will end by 2029.³ Also of note, the Town has previously approved debt financing for the Cockburn Subdivision Watermain Replacement project - payments comments in 2025.

By 2034 however, the Town will need to undertake additional debt to undertake rate funded capital works. Total debt payments are forecast to be about \$1.0 million for water and about \$267,000 for wastewater by 2034. Further discussion on the need for debt financing in future years is discussed in Section 4.

¹ Non-revenue water can occur for a variety of reasons, including but not limited to: authorized consumption for Town needs (flushing, testing, and fire,) as well as other losses occurring through main breaks, leaks and valve uses.

² Calculated based on the relationship of non-billed Town water versus purchased water from the Region of York.

³ The Willow Beach debenture is funded from local improvement charges.

iv. New Initiatives

Based on discussions with Town staff, in order for the Town to continue to adapt to ongoing legislative requirements and customer demands, an allocation for new initiatives, which may be required in the future has been incorporated into the analysis. A summary of the key initiatives included in the operating budget are as follows:

- Staffing to support Consolidated Linear Infrastructure Environmental Compliance Approval (CLI ECA)
- Staff to support future growth
- Staff to support change in delivery of services
- Air valve repair and maintenance
- Excess soils
- Sanitary flow monitoring program
- Inflow and Infiltration (I/I) Inspection Program
- Leak Detection

The specified programs are anticipated to be introduced over the next several years and by 2034 anticipated to represent about \$404,700 for water and \$494,000 for wastewater services.

v. Rebate Programs, Bill Adjustments and Other Costs

The Town expects to undertake additional costs and cost adjustments over the forecast period, which include:

- The Town has proposed to remove the early payment discount for customers starting in 2025. Based on the budget, the early payment discount will result in cost reductions of approximately \$77,000 in water for 2025 and about \$55,000 for wastewater.
- The Town will consider a late payment penalty as a potential option to replace the early payment discount. This will be explored further as part of 2025 budget process and no new revenues are assumed in this model as result of this proposal.
- A provision has been included to account for regular bill adjustments amounting to about \$200,000 between water and wastewater services in 2025. This amount is expected to be reduced by 2034 to about \$100,000. Currently, these costs are typically funded after the billing revenues are received and thereby funded through the reserve fund.

- In 2025 the Town is expected incur one-time costs of about \$40,550 associated to a union settlement.

It is expected that the Town will continue to monitor the costs incurred to ensure sufficient revenues are being generated to fund the system.

B. NON-USER RATE REVENUES

Non-rate revenues are budget items which decrease the net operating budget and are not recovered through the Town’s water or wastewater user rates. These non-rate revenues relate to fees for services, non-metered customers, local improvements, donations, grants, and other miscellaneous revenues.

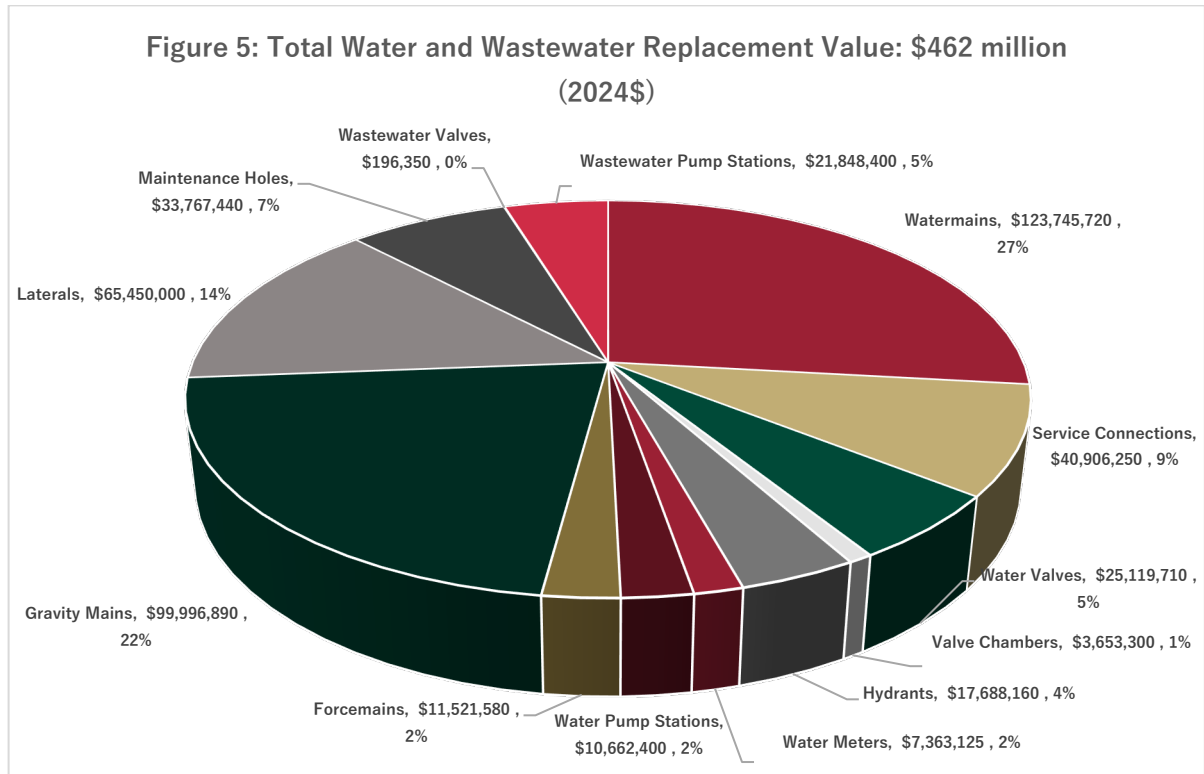
Table 3 shows the Town is expecting to recover approximately \$911,000 for water services and approximately \$981,000 for the wastewater services through non-user rate revenues in 2024. By 2034, these amounts are anticipated to represent approximately \$526,000 and \$67,000 for the water and wastewater services, respectively. The decrease in non-user rate revenue is associated to local improvement charges which are expected to end by 2026 as the term for the Willow Beach debenture, which is funded from these revenues, will end.

All other non-user rate revenues were adjusted at a rate of 2% in the forecast period to account for inflation. Non-user rate revenues are set out in the detailed rate calculations illustrated in Appendix A.

TABLE 3: PROJECTED NON-USER RATE REVENUES (\$000)				
System	2024 Budget	2025 Forecast	2029 Forecast	2034 Forecast
Water	\$911.1	\$1,054.7	\$491.5	\$525.6
Wastewater	\$981.4	\$975.3	\$70.5	\$66.7
Total	\$1,892.5	\$2,030.0	\$562.0	\$592.3

4. INFRASTRUCTURE AND CAPITAL

The Town’s water and wastewater infrastructure is extensive. The Town’s entire water and wastewater system has a replacement value estimated at about \$462 million. Of this value, about \$229 million (49.6%) is related to water assets and \$233 million (50.4%) is associated to wastewater infrastructure⁴. Figure 5 below depicts breakdown of the total replacement value of water and wastewater infrastructure by asset category.



Over the next ten-year period (2025-2034), infrastructure investments will be required to support new growth in the Town and maintain the existing infrastructure network. Infrastructure related to growth will receive funding through development charge revenues and other developer contributions. Capital improvements and financing costs related to non-growth related infrastructure are the responsibility of the Town. These costs will need to be funded through the user rates. For this reason, this section outlines the capital requirements, and funding needs, over the period from 2025 to 2034.

⁴ The information was obtained from the Town’s existing 2022 Asset Management Plan and updated to reflect 2024 dollars.

A. CAPITAL AND CONTRIBUTIONS TO RESERVES

The 2024 capital budget, the Town's 10-year capital plan and discussions with Town staff formed the basis for preparing the 10-year capital forecast. In addition to the in-year capital requirements, Hemson has included annual contributions to reserves, which would allow the Town to prepare for the future repair and replacement of existing infrastructure.

i. Projected Non-Growth Capital Expenditures

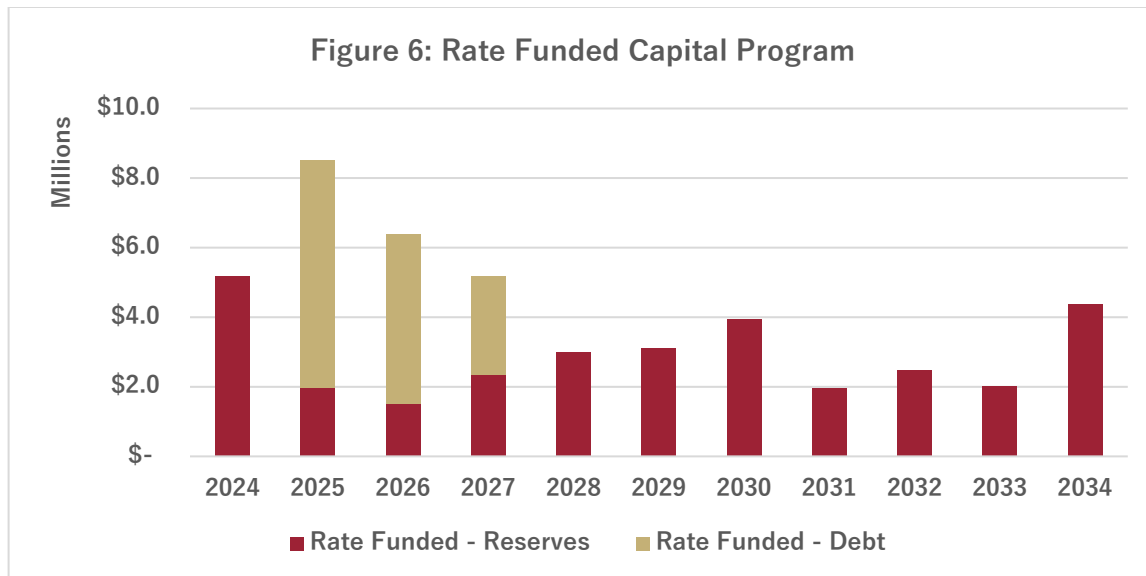
The total rate funded (non-growth related) capital program for the Town is summarized in Figure 6 below. Over the 2025-2034 period, about \$41.0 million in rate-funded capital projects is required to support both water and wastewater services. This is made up of:

- About \$27.9 million in rate-funded capital projects is required to support water services with about \$15.4 million funded from reserves and about \$12.5 million requiring debt financing.⁵
- About \$13.1 million in rate-funded capital projects is required to support the wastewater services with about \$11.3 million funded from reserves and about \$1.8 million requiring debt financing.

In all instances, water and wastewater reserve funds are prioritized to be used to fund the in-year capital expenditure requirements. Instances in which in-year expenditures exceed the reserve fund balance in any year of the planning period, debt financing is assumed to ensure that the balances of both the water and wastewater reserve funds will remain in a healthy position to fund operations. There is anticipated need for debt financing for rate-funded water and wastewater projects as shown in Figure 6. The Town has the authority and ability to utilize debt to fund system costs and any financing costs would be funded through the utility rates going forward. The need for debt financing may be considered by Council on an annual basis through the budget process.

In addition to the known capital works, an annual contribution to reserves is included in the rate calculations to save for future repair and eventual replacement of existing assets while paying for the capital requirements identified in Figure 6.

⁵ New debt is assumed using interest rate of 5% over 30-years. Specifically for the Cockburn Subdivision Watermain Replacement and Meter Replacement Program an interest rate of 4.8% over 20-years is assumed.



Note: The capital costs represented in this figure are adjusted for inflation to reflect the cost of the works in the year in which the work is anticipated.

ii. Capital Contribution Requirements

The asset rehabilitation and replacement needs were developed using the Town’s existing 2022 Asset Management Plan and updated to reflect 2024 dollars.

The calculated full cost average annual contribution requirement amounts to \$5.6 million for water services and \$4.0 million for wastewater services by 2034. This calculation is based on the infrastructure that the Town owns at the time of preparing this study plus additional future infrastructure identified through the Town’s 10-year capital plan. The annual contribution requirements have been identified in this analysis and detailed in Appendix A.

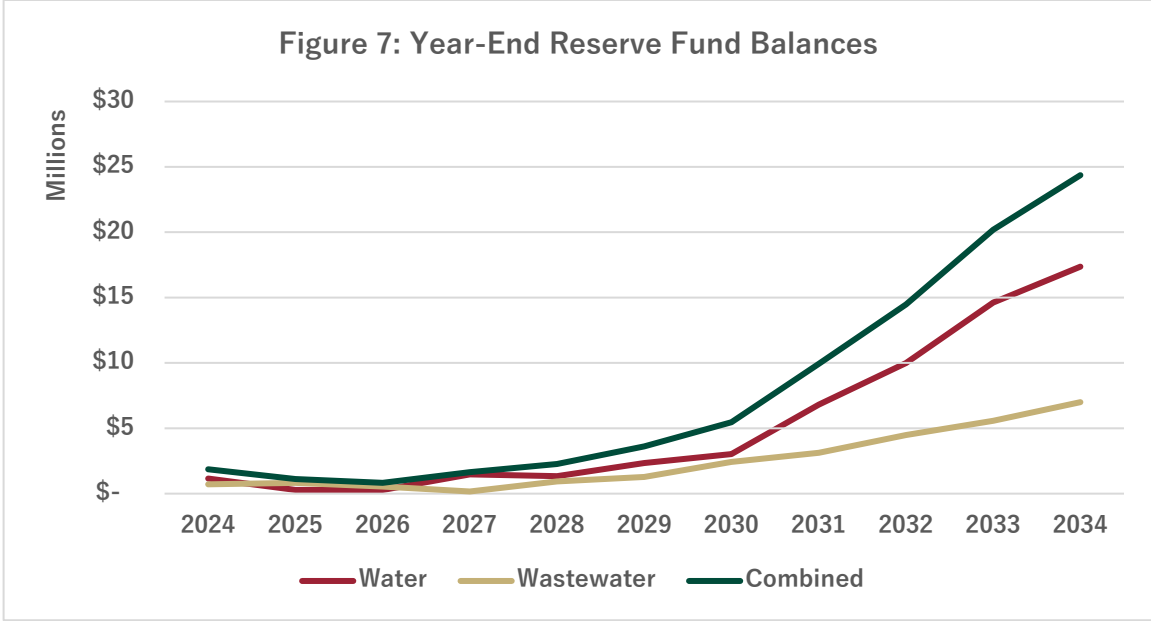
To mitigate an impractical increase of the user rates, reserve fund contributions are phased in gradually and managed in the context of the Town’s existing accumulated funds. Table 4 provides a snapshot of the rate funded capital contribution by 2034 relative to the calculated annual capital investment needed by service. As illustrated in the table, the Town would be contributing at approximately 96% of the total annual calculated need by 2034. Additional details on reserve funds are discussed in the next section. Despite the Town’s contributions nearing total cost recovery by the end of the period, much of this achieved toward the latter end of the period. It is expected that the Town will review this relationship at the next rate study.

TABLE 4: RATE FUNDED CONTRIBUTION RELATIVE TO CALCULATED ANNUAL CAPITAL CONTRIBUTION (2034)		
System	Rate Funded Contribution¹	Calculated Full Cost Contribution
Water	\$6,185,500 <i>(111% of total Calculated)</i>	\$5,597,000
Wastewater	\$3,058,000 <i>(76% of total Calculated)</i>	\$3,998,000
Total	\$9,243,000 <i>(96% of total Calculated)</i>	\$9,595,000

Note 1: Includes rate funded debt payments for the share of non-growth-related capital expenditure. Excludes the Willow Beach debenture.

iii. Reserve Fund Balances

As the non-growth capital expenditures shown in Figure 6 are expected to be funded through the Town’s rate-funded water and wastewater reserves, it is important to ensure that sufficient funds are available to 2034. Figure 7 illustrates the cumulative water and wastewater reserve balances resulting from both the contributions to reserves and proposed capital program to 2034. The estimated year-end 2024 reserve fund balance is expected to be about \$1.2 million for water services and about \$711,000 for wastewater services. The analysis estimates the 2034 reserve balances to be approximately \$17.3 million and \$7.0 million for water and wastewater, respectively (total of \$24.4 million for both services). It is important to note that although the water reserve balance grows quickly towards the end of the planning period, the balances will be reduced if any rate-funded capital projects are added to the 10-year capital plan above what has been identified. Furthermore, the reserve balances assume that debt financing will be utilized for a portion of the capital program as previously discussed, to keep reserve levels stable over the period.



iv. Projected Growth Capital Expenditures

The utility rate analysis only captures the non-growth related shares of the Town’s water and wastewater infrastructure. Infrastructure related to growth will receive funding through development charge revenues and other developer contributions and this capital is not funded from the water and wastewater rates in this study. Notably, this rate analysis does capture the non-growth related shares of water and wastewater infrastructure outlined in the Town’s 2021 DC Background Study as this infrastructure has been captured through the Town’s 10-year capital plan.

5. RATE STRUCTURE ANALYSIS

Various water and wastewater rate structures are in place across Ontario municipalities. These include flat rates, constant rates, humpback block rates, declining block rates and inclining block rates. Rate structures often include fixed or minimum charges in addition to the consumption-based charges. The implementation of a particular rate structure depends on several aspects including administrative and financial factors. Emphasis should be placed on identifying a rate structure that satisfies changing water use patterns and demographic trends while being fiscally responsible and sustainable from a service delivery standpoint.

As shown in Table 5, the Town of Georgina has a two-part rate structure in place:

- 1) A capital cost recovery charge (i.e. fixed rate) that is levied to each connection irrespective of usage patterns. This fixed charge is intended to provide the Town with a stable revenue source but is set much lower than actual fixed costs the Town would incur to provide services.
- 2) A consumption-based charge that is applied to each cubic meter of water consumed. The charge per cubic meter remains constant and does not increase (or decrease) relative to individual consumption patterns. This variable rate component is intended to provide the end-user with control of their utility bill which the total amount payable is relative to the volume of water consumed.

Table 5: In-Force 2024 Utility Rates		
All Accounts	Water	Wastewater
Fixed Capital Charge: \$/Month	\$4.94	\$4.87
Consumption Charge: \$/m ³	\$3.10	\$3.39

Note: Residential customers are billed quarterly non-residential customers are billed monthly.

A. ISSUES TO CONSIDER

i. Cost Recovery

In determining water and wastewater rates, the full cost of providing services are recovered. The costs are to include, operation and maintenance, periodic rehabilitation and contributions to reserves for the eventual repair and ultimate replacement of water and wastewater infrastructure.

ii. **Equity**

A 'user-pay' approach was used in selecting a rate structure and calculating water and wastewater rates.

iii. **Conservation**

It is important to consider measures that promote water conservation when determining a rate structure. It is also important to recognize that not all users have the ability to change their levels of consumption and, as such, should not be penalized.

iv. **Administration**

A rate structure should be transparent and easy to understand by both the users and service provider. Also, easing administrative requirements may reduce the overall administrative cost, which would ultimately provide for a reduction of rates.

v. **Economic Development**

While recognizing the importance of the above objectives, it is also important to maintain the Town's attractiveness to industries that may rely heavily on water and/or wastewater services. The rate structure must allow the Town to continue to be competitive from an economic development perspective.

B. MOVING FORWARD

After consultation with Town staff and analysis of neighbouring municipalities and best practices, the recommendation is to maintain the current rate structure, however, the fixed charge is recommended to be realigned over time to recover a greater share of costs - the fixed rates are set to recover approximately 15% of total water and wastewater expenditures by 2034. Currently, the fixed charge generates about 9% of the total water and wastewater revenue, while the variable rate funds the remaining share of expenses. From a fiscal sustainability standpoint, it is important that the Town ensures the fixed charge represents a reasonable share of costs to secure sufficient revenues to properly run the system while balancing the overall incentives to promote conservation efforts.

The proposed rate structure is intended to improve the Town's fiscal stability by increasing the predictability of revenues over time. A volumetric based charge is still applied to each cubic meter of water consumed and continues to represent the most significant component of the cost recovery, thereby continuing the Town's commitment to promote water conservation efforts while ensuring end-users have the ability to control the total bill.

6. CALCULATED RATES

In calculating the water and wastewater rates, a number of assumptions were applied. The water and wastewater rates are calculated to fully recover the cost of operating the system and identified in-year capital needs (inclusive of any rate-funded debt servicing requirements). Furthermore, the rates continue to provide for contributions to asset replacement reserves. An immediate implementation of a rate that fully funded the calculated asset rehabilitation and replacement contributions would result in significant impacts to all users in the Town. The analysis is based on providing for a gradual movement towards full rates. These contributions, when combined with the Town's ongoing capital works, will demonstrate a significant movement to long-term full cost recovery rates.

Table 6 below provides a summary of the 2025 forecasted net rate funding requirement for each of the water and wastewater systems. The net rate funding need represents the amount of money that must be funded through the utility rates.

TABLE 6: CALCULATION OF THE 2025 NET RATE FUNDING REQUIREMENT (\$000)			
Ref	Category	Water	Wastewater
1	Operating Expenditures	\$10,505.0	\$10,207.2
2	Contribution To/(From) Reserves	\$378.8	\$785.9
3	<i>Less: Non-Rate Revenue</i>	<i>(\$1,054.7)</i>	<i>(\$975.3)</i>
	Total Net Rate Funding Need = (1+2+3)	\$9,829.1	\$10,017.8

i. Calculated 2025 Utility Rates

Based on the information from Table 6, the required water and wastewater user rate revenue in 2025 is forecast to be about \$9.8 million and \$10.0 million respectively. This is the amount of revenue which must be collected through the sale of water and collection of wastewater to fully recover the operating, capital, rehabilitation and replacement costs of the systems. The calculated rates for 2025 are outlined in Table 7 below and the detailed calculations of the water and wastewater rates are outlined in Appendix A for the entire period to 2034. For 2025, the water capital charge is proposed to increase by 17.0% while the consumption charge would increase by 12.5%. For wastewater, the capital charge is proposed to increase by 15.0% while the consumption charge would increase by 4.5%.

TABLE 7: CALCULATED 2025 UTILITY RATES		
All Accounts	Water	Wastewater
Fixed Capital Charge: \$/Month	\$5.77	\$5.60
Consumption Charge: \$/m ³	\$3.49	\$3.54

ii. Utility Rate Projection

Over the long-term, the net rate funding requirements for both the water and wastewater system are expected to increase. The cost increases can largely be attributed to carrying out the capital program, operational related cost increases to manage inflationary impacts, increases to the Regional water supply and wastewater treatment rates and increased costs from new initiatives (see Section 3). These costs are required for the Town to continue to adapt to ongoing maintenance requirements and customer demands. The water and wastewater net rate funding requirements are projected to increase to about \$18.1 million and \$15.2 million over the ten-year period. Figure 8 below provides a snapshot of the annual year-over-year projections to 2034.

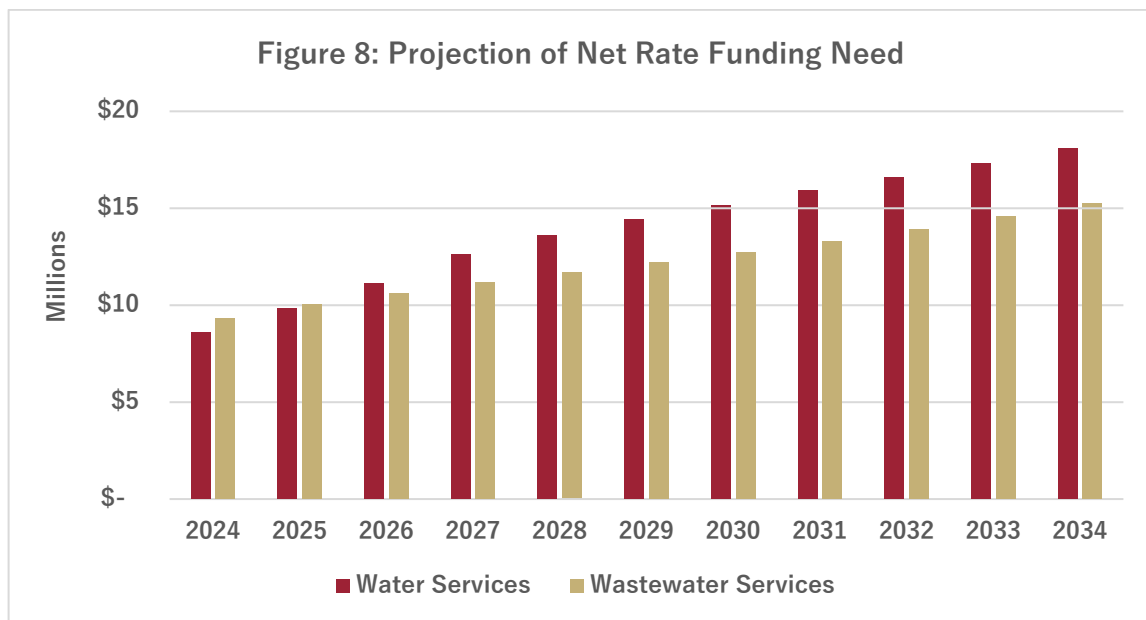


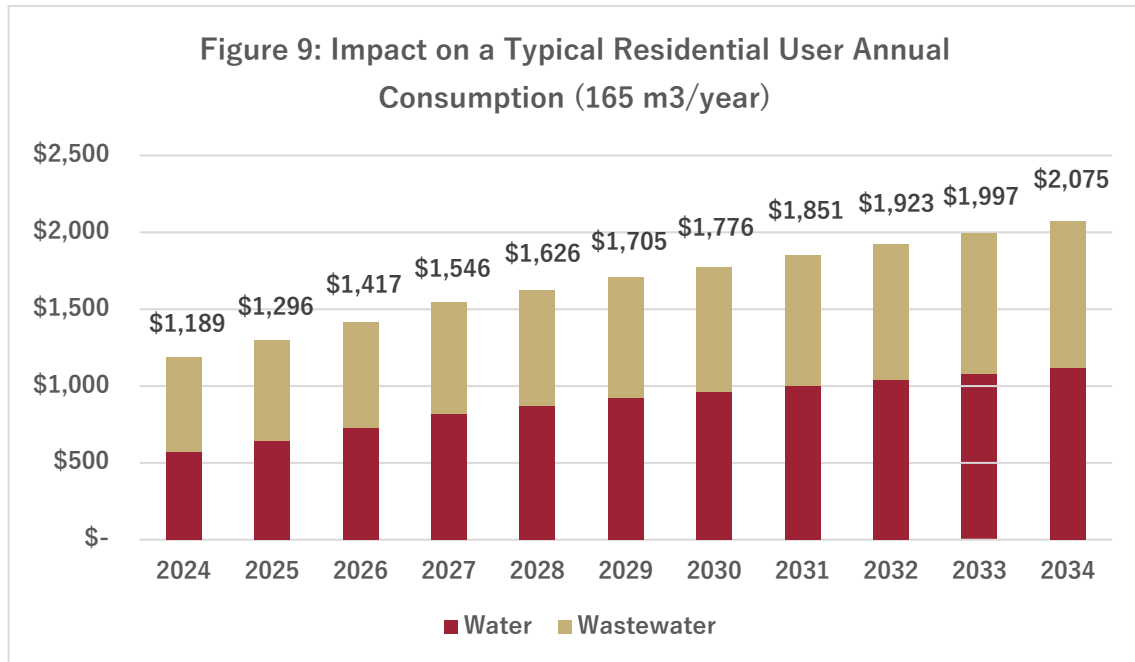
Table 8 below outlines the proposed utility rates required over the immediate 5-year period to support the system and the typical annual water and wastewater bill. A few important considerations:

- Water fixed capital charge monthly rates and are proposed to increase by 17.0% in each of the next 3 years. These increases would then be reduced to 15.0% in 2028 and 10.0% in 2029.
- Water consumption monthly rates and are proposed to increase by 12.5% in each of the next 3 years. The increase would then be reduced to 5.0% in 2028.
- Wastewater fixed capital charge monthly rates and are proposed to increase by 15.0% over the next 2 years. These increases would then be reduced to 10.0% in 2027 and 7.5% in 2028.

- Wastewater consumption monthly rates and are proposed to increase by 4.5% in each of the next 3 years. The increase would then be reduced to 3.5% in 2028.

TABLE 8: Calculated Utility Rates (5-Year Projection)					
Service Type	2025	2026	2027	2028	2029
Water Services					
Fixed Capital Charge:					
\$/Monthly	\$5.77	\$6.76	\$7.90	\$9.09	\$10.00
<i>Change (%)</i>	<i>17.0%</i>	<i>17.0%</i>	<i>17.0%</i>	<i>15.0%</i>	<i>10.0%</i>
Consumption Charge:					
\$/m³	\$3.49	\$3.92	\$4.41	\$4.63	\$4.87
<i>Change (%)</i>	<i>12.5%</i>	<i>12.5%</i>	<i>12.5%</i>	<i>5.0%</i>	<i>5.0%</i>
Water Bill (165					
m³/annum)	\$645	\$728	\$823	\$874	\$923
<i>Change (%)</i>	<i>13.0%</i>	<i>13.0%</i>	<i>13.0%</i>	<i>6.2%</i>	<i>5.6%</i>
Wastewater Services					
Fixed Capital Charge:					
\$/Monthly	\$5.60	\$6.44	\$7.08	\$7.62	\$8.19
<i>Change (%)</i>	<i>15.0%</i>	<i>15.0%</i>	<i>10.0%</i>	<i>7.5%</i>	<i>7.5%</i>
Consumption Charge: \$/					
m³	\$3.54	\$3.70	\$3.87	\$4.00	\$4.14
<i>Change (%)</i>	<i>4.5%</i>	<i>4.5%</i>	<i>4.5%</i>	<i>3.5%</i>	<i>3.5%</i>
Wastewater Bill (165					
m³/annum)	\$652	\$688	\$723	\$752	\$782
<i>Change (%)</i>	<i>5.5%</i>	<i>5.6%</i>	<i>5.1%</i>	<i>4.0%</i>	<i>4.0%</i>
Total Water & Wastewater					
Total Typical Bill (165					
m³/annum)	\$1,296	\$1,417	\$1,546	\$1,626	\$1,705
<i>Change (%)</i>	<i>9.1%</i>	<i>9.3%</i>	<i>9.2%</i>	<i>5.1%</i>	<i>4.9%</i>

On average, the typical bill increases for a household consuming 165 m³ would be 7.5% per annum over the 5-year period shown above⁶. As shown in Figure 9, the total charge per typical household is expected to reach \$1,705 by 2029 and \$2,075 by 2034.



iii. Impact on Reserve and Reserve Funds

It is important to consider the implications of the calculated user rates on the Town’s water and wastewater reserve fund. The Town’s projected 2024 ending water and wastewater reserve funds are about \$1.2 million in water and \$711,000 in wastewater funds (excluding DC Reserves). The Town’s reserve funds have been calculated over the 10-year period with the goal of ensuring reserves maintain a positive position compared to a benchmarked “minimum balance” illustrated below in Figure 10⁷. For the purposes of this analysis, the minimum balance was determined to represent:

1. 2% of the Town’s water and wastewater asset replacement value; plus
2. 6 months of operational expenses.

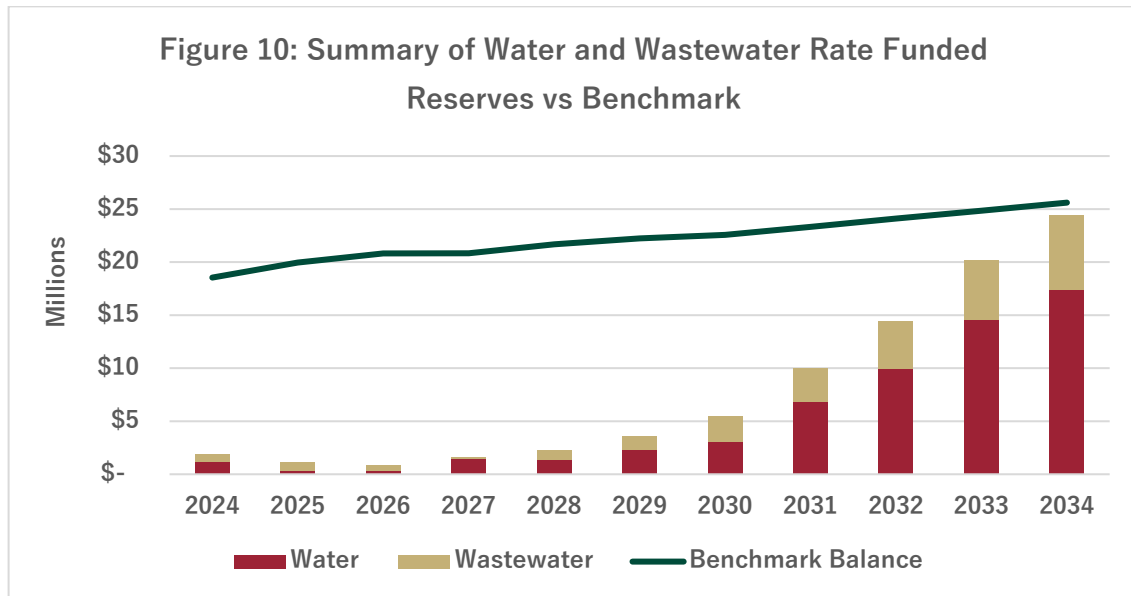
⁶ The average bill increases over the first three years would be at approximately 9% per annum before moderating at 5% per annum in 2028.

⁷ The minimum balance is shown for illustrative purposes as a comparative tool, the “minimum” shown has not been endorsed by Council via a formal policy or by-law.

Figure 10 indicates that the Town’s water and wastewater reserve funds maintain a positive position throughout the period and but remain below the identified minimum threshold due to significant drawing on these funds to carry out the non-growth-related capital program in the short-term. Furthermore, reserve levels are expected to be relatively flat over the next 5-years as the Town undertakes additional rate funded capital projects to maintain assets in state of good repair. It is noted that this includes additional debt financing needed to undertake the 10-year capital program as discussed in Section 4.

Maintaining adequate reserve balances ensures funds are available to manage unexpected capital expenditures or other operational variances, which may be experienced over the planning period (i.e. variations in annual billable consumption). Continued contributions to these reserves to 2034 will ensure that sufficient funds are available to undertake capital works in 2034 and beyond and the Town will be able to absorb unforeseen expenditures without impacting the utility rates (as illustrated in Figure 6).

It is recommended that the Town continue to monitor and contribute to both the water and wastewater reserve funds over the period to ensure they continue to be sufficient to cover operational and capital expenditures. It is expected that the quantum of the Town’s reserve funds be reviewed again at the next rate review.



7. RECOMMENDATIONS AND FINDINGS

The calculated rates presented establish water and wastewater rates to all users of the Town that are fair and equitable. The analysis included in this report ensures that the water and wastewater rates fully fund all of the Town's anticipated annual costs including all operating costs, capital financing needs and debt repayment requirements. It is fiscally prudent that the Town continues to contribute to reserves for the eventual repair and ultimate replacement of the water and wastewater infrastructure. The immediate implementation of a rate that fully funds the calculated asset rehabilitation and replacement contributions would result in significant impacts to all users in the Town. As a result, the analysis establishes an annual contribution to reserves for asset rehabilitation and replacement that will ensure the Town begins to build up its reserves for the long-term achieving about 96% cost recovery by the end of the period. Importantly, despite the Town's contributions nearing total cost recovery by the end of the period, much of this achieved toward the latter end of the period. It is expected that the Town will review this relationship at the next rate study.

The Town is cognizant of the budgetary pressures and that rates need to be increased moving forward in order to maintain operations and to continue to operate a safe and sustainable system. As a result, the total utility bill for the typical user will increase at approximately 7.5% per annum on average over the next 5-years. The calculated utility rates show increases to both the fixed and variable rates each year over the period to manage costs and undertake the necessary capital investments.

The results of this study are in part, Hemson and Town staff best estimates of what could transpire in the short-to-medium term using the data available. It is important that the Town continue to monitor all consumption data on a monthly basis to identify usage trends and variance in the projections to ensure costs and revenues are managed accordingly. This is also particularly important as it results to the non-revenue water which is anticipated to be improved over the planning period with increased capital investments, new operating initiatives and programs. However, should the efficiencies not come to fruition it would impact the revenue collected. Lastly, it is very important that the Town continues to monitor its level of debt especially in years where significant capital projects will need to be financed and those projects be considered in conjunction with other non-rate related ongoing Town capital needs. This will ensure debt levels are maintained within the limitations outlined by the Town and provincial limit. It is recommended that this study be reviewed and updated in five years as details surrounding overall growth and costs become more refined.

APPENDIX A

DETAILED RATE CALCULATIONS

APPENDIX A - TABLE 1

TOWN OF GEORGINA
2024 WATER AND WASTEWATER RATE STUDY
WATER RATE CALCULATIONS

Water Services	2024 Budget	2025 Projected	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected
1. Operating Expenditures											
Annual Gross Operating Expenditures	\$ 2,995,950	\$ 3,541,638	\$ 3,675,574	\$ 3,814,867	\$ 3,959,744	\$ 4,110,440	\$ 4,267,200	\$ 4,430,283	\$ 4,599,957	\$ 4,776,503	\$ 4,960,212
Regional Charges	\$ 4,788,700	\$ 5,255,337	\$ 5,506,020	\$ 5,768,222	\$ 5,922,241	\$ 6,073,621	\$ 6,265,380	\$ 6,463,194	\$ 6,667,253	\$ 6,877,755	\$ 7,094,903
Existing Debt	\$ 1,372,050	\$ 1,372,066	\$ 1,372,066	\$ 872,583	\$ 872,583	\$ 793,083	\$ 152,978	\$ 152,978	\$ 152,978	\$ 152,978	\$ 152,978
Assumed New Debt (Cockburn Subdivision WM Replacement)	\$ -	\$ 180,174	\$ 180,174	\$ 180,174	\$ 180,174	\$ 180,174	\$ 180,174	\$ 180,174	\$ 180,174	\$ 180,174	\$ 180,174
Future Assumed Debt - Meter Replacement Program (Water Share)	\$ -	\$ -	\$ -	\$ -	\$ 156,673	\$ 156,673	\$ 156,673	\$ 156,673	\$ 156,673	\$ 156,673	\$ 156,673
Future Assumed Debt - Other Projects	\$ -	\$ -	\$ 231,771	\$ 430,811	\$ 524,056	\$ 524,056	\$ 524,056	\$ 524,056	\$ 524,056	\$ 524,056	\$ 524,056
One-Time Costs (Union Settlement)	\$ -	\$ 20,275	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Initiatives	\$ -	\$ 112,435	\$ 336,792	\$ 204,624	\$ 279,453	\$ 286,939	\$ 294,424	\$ 301,910	\$ 386,007	\$ 395,346	\$ 404,685
Provision for Regular Bill Adjustments	\$ -	\$ 100,000	\$ 100,000	\$ 100,000	\$ 75,000	\$ 75,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Early Payment Discount - Removed	\$ -	\$ (77,250)	\$ (79,568)	\$ (81,955)	\$ (84,413)	\$ (86,946)	\$ (89,554)	\$ (92,241)	\$ (95,008)	\$ (97,858)	\$ (100,794)
Subtotal Annual Gross Operating Expenditures	\$ 9,156,700	\$ 10,504,675	\$ 11,322,829	\$ 11,289,326	\$ 11,885,511	\$ 12,113,040	\$ 11,801,332	\$ 12,167,027	\$ 12,622,091	\$ 13,015,627	\$ 13,422,887
2. Capital Expenditures											
Calculated Average Annual Capital Contribution	\$ 4,165,000	\$ 4,289,950	\$ 4,418,649	\$ 4,551,208	\$ 4,687,744	\$ 4,828,377	\$ 4,973,228	\$ 5,122,425	\$ 5,276,097	\$ 5,434,380	\$ 5,597,412
Annual Capital Renewal Expenditures											
Non-Growth Related Capital Expenses	\$ 3,887,930	\$ 5,342,353	\$ 4,127,856	\$ 2,469,727	\$ 2,728,515	\$ 2,205,519	\$ 3,598,038	\$ 911,583	\$ 1,901,675	\$ 881,961	\$ 2,861,759
Add: Capital Expenditures for Metering	\$ -	\$ 1,333,333	\$ 1,333,333	\$ 1,333,333	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Less Capital Cost Reduction from Plan (for Metering)	\$ (309,000)	\$ (318,270)	\$ (327,818)	\$ (327,818)	\$ (337,653)	\$ (347,782)	\$ (358,216)	\$ (368,962)	\$ (380,031)	\$ (391,432)	\$ -
Less: Future Debt Financing (Enter as Negative) - Metering	\$ -	\$ (1,333,333)	\$ (1,333,333)	\$ (1,333,333)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Less: Future Debt Financing (Enter as Negative) - Other	\$ -	\$ (3,741,037)	\$ (3,212,723)	\$ (1,505,068)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Less: Transfers from Reserve	\$ (3,887,930)	\$ (1,292,315)	\$ (596,862)	\$ (636,841)	\$ (2,390,862)	\$ (1,857,737)	\$ (3,239,822)	\$ (542,620)	\$ (1,521,644)	\$ (490,529)	\$ (2,861,759)
Subtotal Rate Funded Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3. Contribution to/from Reserves											
Contribution to Capital Fund	\$ 350,860	\$ 378,770	\$ 580,876	\$ 1,811,390	\$ 2,210,325	\$ 2,818,798	\$ 3,860,650	\$ 4,235,349	\$ 4,490,301	\$ 4,821,198	\$ 5,171,090
Subtotal Transfers	\$ 350,860	\$ 378,770	\$ 580,876	\$ 1,811,390	\$ 2,210,325	\$ 2,818,798	\$ 3,860,650	\$ 4,235,349	\$ 4,490,301	\$ 4,821,198	\$ 5,171,090
4. Total Annual Expenditures (1+2+3=4)	\$ 9,507,560	\$ 10,883,445	\$ 11,903,705	\$ 13,100,716	\$ 14,095,836	\$ 14,931,837	\$ 15,661,982	\$ 16,402,376	\$ 17,112,392	\$ 17,836,825	\$ 18,593,977
Revenues											
Local Improvements (Water/Wastewater)	\$ (631,920)	\$ (585,000)	\$ (292,500)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Donations & Grants & Misc Revenues	\$ (12,490)	\$ (120,490)	\$ (122,900)	\$ (125,358)	\$ (127,865)	\$ (130,422)	\$ (133,031)	\$ (135,691)	\$ (138,405)	\$ (141,173)	\$ (143,997)
Non-Metered Customers	\$ -	\$ (63,331)	\$ (60,164)	\$ (57,156)	\$ (54,298)	\$ (51,583)	\$ (49,004)	\$ (46,554)	\$ (44,226)	\$ (42,015)	\$ (39,914)
User Fees and Service Charges	\$ (266,650)	\$ (285,905)	\$ (291,623)	\$ (297,455)	\$ (303,404)	\$ (309,472)	\$ (315,662)	\$ (321,975)	\$ (328,415)	\$ (334,983)	\$ (341,682)
Subtotal non-rate revenues	\$ (911,060)	\$ (1,054,725)	\$ (767,187)	\$ (479,969)	\$ (485,567)	\$ (491,478)	\$ (497,697)	\$ (504,220)	\$ (511,046)	\$ (518,171)	\$ (525,593)
Net Rate Funding Need	\$ 8,596,500	\$ 9,828,719	\$ 11,136,518	\$ 12,620,747	\$ 13,610,269	\$ 14,440,360	\$ 15,164,285	\$ 15,898,156	\$ 16,601,346	\$ 17,318,654	\$ 18,068,383
Change (\$)		\$ 1,232,219	\$ 1,307,799	\$ 1,484,229	\$ 989,521	\$ 830,091	\$ 723,926	\$ 733,870	\$ 703,191	\$ 717,308	\$ 749,730
Change (%)		14.3%	13.3%	13.3%	7.8%	6.1%	5.0%	4.8%	4.4%	4.3%	4.3%



APPENDIX A - TABLE 1

TOWN OF GEORGINA
2024 WATER AND WASTEWATER RATE STUDY
WATER RATE CALCULATIONS

User Rates	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1 Fixed Capital Charge (Monthly)											
Fixed Monthly Fee: Jan - March	\$4.38	\$4.94	\$5.77	\$6.76	\$7.90	\$9.09	\$10.00	\$11.00	\$12.10	\$12.70	\$13.34
Fixed Monthly Fee: April - Dec	\$4.94	\$5.77	\$6.76	\$7.90	\$9.09	\$10.00	\$11.00	\$12.10	\$12.70	\$13.34	\$14.01
Number of Connections	13,850	14,005	14,160	14,315	14,520	14,725	14,980	15,285	15,640	16,045	16,450
<i>January - March Revenue</i>	<i>\$ 181,989</i>	<i>\$ 207,370</i>	<i>\$ 245,308</i>	<i>\$ 290,152</i>	<i>\$ 344,339</i>	<i>\$ 401,581</i>	<i>\$ 449,389</i>	<i>\$ 504,393</i>	<i>\$ 567,718</i>	<i>\$ 611,540</i>	<i>\$ 658,325</i>
<i>Remaining Months Revenue</i>	<i>\$ 615,224</i>	<i>\$ 727,868</i>	<i>\$ 861,031</i>	<i>\$ 1,018,433</i>	<i>\$ 1,187,971</i>	<i>\$ 1,325,217</i>	<i>\$ 1,482,983</i>	<i>\$ 1,664,496</i>	<i>\$ 1,788,312</i>	<i>\$ 1,926,351</i>	<i>\$ 2,073,724</i>
Total Annual Fixed Fee Revenue	\$ 797,213	\$ 935,238	\$ 1,106,339	\$ 1,308,585	\$ 1,532,310	\$ 1,726,798	\$ 1,932,372	\$ 2,168,888	\$ 2,356,030	\$ 2,537,891	\$ 2,732,049
Increase (%)		17.0%	17.0%	17.0%	15.0%	10.0%	10.0%	10.0%	5.0%	5.0%	5.0%
2 Consumption Charge											
Charge Per Cubic Metre: Jan - March	\$2.85	\$3.10	\$3.49	\$3.92	\$4.41	\$4.63	\$4.87	\$5.04	\$5.21	\$5.40	\$5.58
Charge Per Cubic Metre: April - Dec	\$3.10	\$3.49	\$3.92	\$4.41	\$4.63	\$4.87	\$5.04	\$5.21	\$5.40	\$5.58	\$5.78
Total Annual Billed Consumption (m3)	2,614,000	2,614,000	2,620,535	2,627,086	2,633,654	2,640,238	2,646,839	2,653,456	2,660,090	2,666,740	2,673,407
<i>January - March Revenue</i>	<i>\$ 1,638,978</i>	<i>\$ 1,782,748</i>	<i>\$ 2,010,605</i>	<i>\$ 2,267,586</i>	<i>\$ 2,557,412</i>	<i>\$ 2,691,996</i>	<i>\$ 2,833,662</i>	<i>\$ 2,940,172</i>	<i>\$ 3,050,686</i>	<i>\$ 3,165,354</i>	<i>\$ 3,284,331</i>
<i>Remaining Months Revenue</i>	<i>\$ 6,320,652</i>	<i>\$ 7,110,734</i>	<i>\$ 8,019,574</i>	<i>\$ 9,044,576</i>	<i>\$ 9,520,547</i>	<i>\$ 10,021,566</i>	<i>\$ 10,398,251</i>	<i>\$ 10,789,095</i>	<i>\$ 11,194,631</i>	<i>\$ 11,615,409</i>	<i>\$ 12,052,003</i>
Total Annual Consumption Revenue	\$ 7,959,630	\$ 8,893,482	\$ 10,030,180	\$ 11,312,162	\$ 12,077,959	\$ 12,713,561	\$ 13,231,913	\$ 13,729,268	\$ 14,245,316	\$ 14,780,762	\$ 15,336,334
Increase (%)		12.50%	12.50%	12.50%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%
3 Grand Total Annual Revenue	\$ 8,756,843	\$ 9,828,719	\$ 11,136,518	\$ 12,620,747	\$ 13,610,269	\$ 14,440,360	\$ 15,164,285	\$ 15,898,156	\$ 16,601,346	\$ 17,318,654	\$ 18,068,383

APPENDIX A - TABLE 2

TOWN OF GEORGINA
2024 WATER AND WASTEWATER RATE STUDY
WASTEWATER RATE CALCULATION

Wastewater Services	2024 Budget	2025 Projected	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected
1. Operating Expenditures											
General Operating Expenditures	\$ 2,154,670	\$ 2,327,979	\$ 2,408,861	\$ 2,492,682	\$ 2,579,553	\$ 2,669,592	\$ 2,762,919	\$ 2,859,660	\$ 2,959,948	\$ 3,063,918	\$ 3,171,713
Regional Charges	\$ 6,549,730	\$ 6,923,056	\$ 6,987,596	\$ 7,052,201	\$ 7,182,915	\$ 7,366,519	\$ 7,599,099	\$ 7,839,021	\$ 8,086,519	\$ 8,341,831	\$ 8,605,203
Existing Debt	\$ 749,220	\$ 749,225	\$ 749,225	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Future Assumed Debt - Meter Replacement Program (WW Share)	\$ -	\$ -	\$ -	\$ -	\$ 156,673	\$ 156,673	\$ 156,673	\$ 156,673	\$ 156,673	\$ 156,673	\$ 156,673
Future Assumed Debt	\$ -	\$ -	\$ 90,614	\$ 110,332	\$ 110,332	\$ 110,332	\$ 110,332	\$ 110,332	\$ 110,332	\$ 110,332	\$ 110,332
One-Time Costs (Union Settlement)	\$ -	\$ 20,275	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Initiatives	\$ -	\$ 142,181	\$ 240,204	\$ 247,003	\$ 356,599	\$ 366,151	\$ 375,703	\$ 385,254	\$ 471,418	\$ 482,824	\$ 494,229
Provision for Regular Bill Adjustments	\$ -	\$ 100,000	\$ 100,000	\$ 100,000	\$ 75,000	\$ 75,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Early Payment Discount - Removed	\$ -	\$ (55,496)	\$ (57,161)	\$ (58,876)	\$ (60,642)	\$ (62,462)	\$ (64,336)	\$ (66,266)	\$ (68,254)	\$ (70,301)	\$ (72,410)
Subtotal Annual Gross Operating Expenditures	\$ 9,453,620	\$ 10,207,219	\$ 10,519,338	\$ 9,943,341	\$ 10,400,430	\$ 10,681,806	\$ 10,990,390	\$ 11,334,676	\$ 11,766,637	\$ 12,135,276	\$ 12,515,739
2. Capital Expenditures											
Calculated Average Annual Capital Contribution	\$ 2,975,000	\$ 3,064,250	\$ 3,156,178	\$ 3,250,863	\$ 3,348,389	\$ 3,448,840	\$ 3,552,306	\$ 3,658,875	\$ 3,768,641	\$ 3,881,700	\$ 3,998,151
Annual Capital Renewal Expenditures											
Non-Growth Related Capital Expenses	\$ 2,572,860	\$ 2,155,533	\$ 1,229,212	\$ 1,742,004	\$ 605,974	\$ 1,266,507	\$ 705,446	\$ 1,424,194	\$ 953,244	\$ 1,534,348	\$ 1,531,226
Less: Future Debt Financing (Enter as Negative)	\$ -	\$ (1,462,600)	\$ (318,270)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Less: Transfers from Reserve	\$ (2,572,860)	\$ (692,933)	\$ (910,942)	\$ (1,742,004)	\$ (605,974)	\$ (1,266,507)	\$ (705,446)	\$ (1,424,194)	\$ (953,244)	\$ (1,534,348)	\$ (1,531,226)
Subtotal Rate Funded Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3. Contribution to/from Reserves											
Contribution to Capital Fund	\$ 831,980	\$ 785,944	\$ 603,208	\$ 1,312,072	\$ 1,364,751	\$ 1,589,919	\$ 1,818,091	\$ 2,043,369	\$ 2,216,643	\$ 2,492,072	\$ 2,791,077
Subtotal Transfers	\$ 831,980	\$ 785,944	\$ 603,208	\$ 1,312,072	\$ 1,364,751	\$ 1,589,919	\$ 1,818,091	\$ 2,043,369	\$ 2,216,643	\$ 2,492,072	\$ 2,791,077
4. Total Annual Expenditures (1+2+3=4)	\$ 10,285,600	\$ 10,993,163	\$ 11,122,547	\$ 11,255,413	\$ 11,765,180	\$ 12,271,724	\$ 12,808,481	\$ 13,378,045	\$ 13,983,280	\$ 14,627,348	\$ 15,306,817
Non User Rate Revenues											
Local Improvements (Water/Wastewater)	\$ (947,880)	\$ (900,000)	\$ (450,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Metered Customers	\$ -	\$ (41,112)	\$ (39,057)	\$ (37,104)	\$ (35,249)	\$ (33,486)	\$ (31,812)	\$ (30,221)	\$ (28,710)	\$ (27,275)	\$ (25,911)
User Fees and Service Charges	\$ (33,500)	\$ (34,170)	\$ (34,853)	\$ (35,550)	\$ (36,261)	\$ (36,987)	\$ (37,726)	\$ (38,481)	\$ (39,251)	\$ (40,036)	\$ (40,836)
Subtotal non-rate revenues	\$ (981,380)	\$ (975,282)	\$ (523,910)	\$ (72,654)	\$ (71,510)	\$ (70,473)	\$ (69,538)	\$ (68,702)	\$ (67,961)	\$ (67,310)	\$ (66,747)
Net Rate Funding Need	\$ 9,304,220	\$ 10,017,881	\$ 10,598,637	\$ 11,182,759	\$ 11,693,670	\$ 12,201,251	\$ 12,738,943	\$ 13,309,343	\$ 13,915,319	\$ 14,560,038	\$ 15,240,070
Change (\$)	\$ -	\$ 713,661	\$ 580,756	\$ 584,122	\$ 510,911	\$ 507,581	\$ 537,692	\$ 570,400	\$ 605,976	\$ 644,719	\$ 680,032
Change (%)	% -	7.7%	5.8%	5.5%	4.6%	4.3%	4.4%	4.5%	4.6%	4.6%	4.7%

APPENDIX A - TABLE 2

TOWN OF GEORGINA
2024 WATER AND WASTEWATER RATE STUDY
WASTEWATER RATE CALCULATION

User Rates	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1 Fixed Capital Charge (Quarterly)											
Fixed Monthly Fee: Jan - March	\$4.14	\$4.87	\$5.60	\$6.44	\$7.08	\$7.62	\$8.19	\$8.80	\$9.46	\$10.17	\$10.93
Fixed Monthly Fee: April - Dec	\$4.87	\$5.60	\$6.44	\$7.08	\$7.62	\$8.19	\$8.80	\$9.46	\$10.17	\$10.93	\$11.75
Number of Connections	13,696	13,851	14,006	14,161	14,366	14,571	14,826	15,131	15,486	15,891	16,296
<i>January - March Revenue</i>	<i>\$ 170,104</i>	<i>\$ 202,341</i>	<i>\$ 235,296</i>	<i>\$ 273,585</i>	<i>\$ 305,301</i>	<i>\$ 332,881</i>	<i>\$ 364,110</i>	<i>\$ 399,471</i>	<i>\$ 439,506</i>	<i>\$ 484,825</i>	<i>\$ 534,470</i>
<i>Remaining Months Revenue</i>	<i>\$ 600,231</i>	<i>\$ 698,077</i>	<i>\$ 811,773</i>	<i>\$ 902,832</i>	<i>\$ 984,594</i>	<i>\$ 1,073,543</i>	<i>\$ 1,174,255</i>	<i>\$ 1,288,293</i>	<i>\$ 1,417,407</i>	<i>\$ 1,563,562</i>	<i>\$ 1,723,667</i>
Total Annual Fixed Fee Revenue	\$ 770,335	\$ 900,419	\$ 1,047,069	\$ 1,176,417	\$ 1,289,895	\$ 1,406,424	\$ 1,538,365	\$ 1,687,763	\$ 1,856,913	\$ 2,048,387	\$ 2,258,137
Increase (%)		15.0%	15.0%	10.0%	7.5%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
2 Consumption Charge											
Charge Per Cubic Metre: Jan - March	\$3.14	\$3.39	\$3.54	\$3.70	\$3.87	\$4.00	\$4.14	\$4.29	\$4.44	\$4.59	\$4.76
Charge Per Cubic Metre: April - Dec	\$3.39	\$3.54	\$3.70	\$3.87	\$4.00	\$4.14	\$4.29	\$4.44	\$4.59	\$4.76	\$4.92
Total Annual Billed Consumption (m3)	2,598,316	2,598,316	2,604,812	2,611,324	2,617,852	2,624,397	2,630,958	2,637,535	2,644,129	2,650,739	2,657,366
<i>January - March Revenue</i>	<i>\$ 1,794,917</i>	<i>\$ 1,937,824</i>	<i>\$ 2,030,089</i>	<i>\$ 2,126,746</i>	<i>\$ 2,228,006</i>	<i>\$ 2,311,751</i>	<i>\$ 2,398,644</i>	<i>\$ 2,488,803</i>	<i>\$ 2,582,351</i>	<i>\$ 2,679,415</i>	<i>\$ 2,780,128</i>
<i>Remaining Months Revenue</i>	<i>\$ 6,870,467</i>	<i>\$ 7,179,638</i>	<i>\$ 7,521,479</i>	<i>\$ 7,879,595</i>	<i>\$ 8,175,769</i>	<i>\$ 8,483,076</i>	<i>\$ 8,801,934</i>	<i>\$ 9,132,776</i>	<i>\$ 9,476,055</i>	<i>\$ 9,832,236</i>	<i>\$ 10,201,805</i>
Total Annual Consumption Revenue	\$ 8,665,384	\$ 9,117,462	\$ 9,551,567	\$ 10,006,341	\$ 10,403,775	\$ 10,794,827	\$ 11,200,578	\$ 11,621,580	\$ 12,058,406	\$ 12,511,651	\$ 12,981,933
Increase (%)		4.50%	4.50%	4.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
3 Grand Total Annual Revenue	\$ 9,435,719	\$ 10,017,881	\$ 10,598,637	\$ 11,182,759	\$ 11,693,670	\$ 12,201,251	\$ 12,738,943	\$ 13,309,343	\$ 13,915,319	\$ 14,560,038	\$ 15,240,070