FINAL REPORT

PREPARED BY HEMSON FOR THE TOWN OF COLLINGWOOD

TOWN OF COLLINGWOOD WATER AND WASTEWATER RATE STUDY

September 20, 2024

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EXECUTIVE SUMMARY

The Town of Collingwood's water and wastewater systems provide service to municipal residents and the non-residential customer base through an extensive municipal network valued at $400 million. The Town of Collingwood 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:

- Over the 10-year period, total water charges are proposed to increase annually by 5.5% and total wastewater charges are proposed to increase annually by 3.5%.
- No changes to the Town's rate structure are proposed in this update.

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

- The required water user rate revenue in 2025 is forecast to be about $6.1 million. 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 system.

- The required wastewater user rate revenue in 2025 is forecast to be about $8.3 million. This is the amount of revenue that must be collected through the wastewater rates to fully recover the operating, capital, rehabilitation and replacement costs of the wastewater system.

- 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 utility operational costs as well as increased capital asset management contributions. The water and wastewater net rate funding requirements are projected to increase to about $10.9 million and $12.8 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 200 m^3 would be approximately 4.3% per annum over the 5-year period.

- The Town maintains sufficient reserves over the planning period to manage expenses. By 2034, the analysis estimates the reserve balances to be approximately $11.9 million and $16.1 million for water and wastewater, respectively.

CALCULATED UTILITY RATES (5-YEAR PROJECTION)					
All Accounts	**2025**	**2026**	**2027**	**2028**	**2029**
Water Services					
Fixed Monthly Fee per Connection [1]					
(Up to 1 ¼ inch)	$19.53	$20.60	$21.74	$22.93	$24.19
Tier 1 Consumption Charge ($/m^3): 0-8 m^3	$1.108	$1.169	$1.233	$1.301	$1.372
Tier 2 Consumption Charge ($/m^3): 8-15 m^3	$1.161	$1.224	$1.292	$1.363	$1.438
Tier 3 Consumption Charge ($/m^3): 15-150 m^3	$1.277	$1.347	$1.421	$1.499	$1.581
Tier 4 Consumption Charge ($/m^3): >150 m^3	$0.939	$0.991	$1.045	$1.103	$1.163
Change (%)	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*
Water Bill (200 m^3/annum)	**$464**	**$489**	**$516**	**$544**	**$574**
Change (%)	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*
Wastewater Services					
Fixed Monthly Fee per Connection					
(Up to 1 ¼ inch) [1]	$36.59	$37.87	$39.19	$40.56	$41.98
Tier 1 Consumption Charge ($/m^3): 0-8 m^3	$1.110	$1.148	$1.189	$1.230	$1.273
Tier 2 Consumption Charge ($/m^3): 8-15 m^3	$1.165	$1.206	$1.248	$1.292	$1.337
Tier 3 Consumption Charge ($/m^3): 15-150 m^3	$1.276	$1.321	$1.367	$1.415	$1.464
Tier 4 Consumption Charge ($/m^3): >150 m^3	$0.944	$0.977	$1.011	$1.047	$1.083
Change (%)	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*
Wastewater Bill (200 m^3/annum)	**$669**	**$692**	**$717**	**$742**	**$768**
Change (%)	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*
Total Water & Wastewater					
Total Typical Bill (200 m^3/annum)	**$1,133**	**$1,182**	**$1,233**	**$1,286**	**$1,342**
Change (%)	*4.31%*	*4.32%*	*4.33%*	*4.34%*	*4.35%*
Note 1: only the meter size of up to 1 ¼ inches is illustrated, however, the percentage rate increase would be applied uniformly to all water and wastewater meter sizes.					

Staff have been provided with the utility rate setting full-cost model to monitor costs and revenues and assist with future fee 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 Collingwood provides potable water and distribution services to residents while also providing wastewater collection and treatment services. As of year-end 2023, Collinwood provides water services to approximately 12,000 metered connections.

Collingwood owns, operates and maintains the Raymond A. Barker Water Treatment Plant as well as distribution infrastructure including an elevated storage tank, a series of reservoirs and booster stations and linear pipelines. As for Wastewater, The Town operates a wastewater treatment facility and seven pumping stations. The Town is responsible for all monitoring, quality assurance, quality control, reporting, inspecting, collection and maintenance of the wastewater facility and collection infrastructure. The water and wastewater infrastructure is extensive and valued at $400 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 fixed charge differentiated by meter size and volumetric based charges for each cubic metre of water consumed.[1]

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 2019. This study resulted in the adoption of a new rate structure, which is in force today. 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.

[1] The volumetric based charges include a humpback structure in which the per cubic meter price of water increases relative to use, and then declines at the last tier for high volume users. Wastewater is based on water consumption and levied on the same structure as water for both residential and commercial uses.

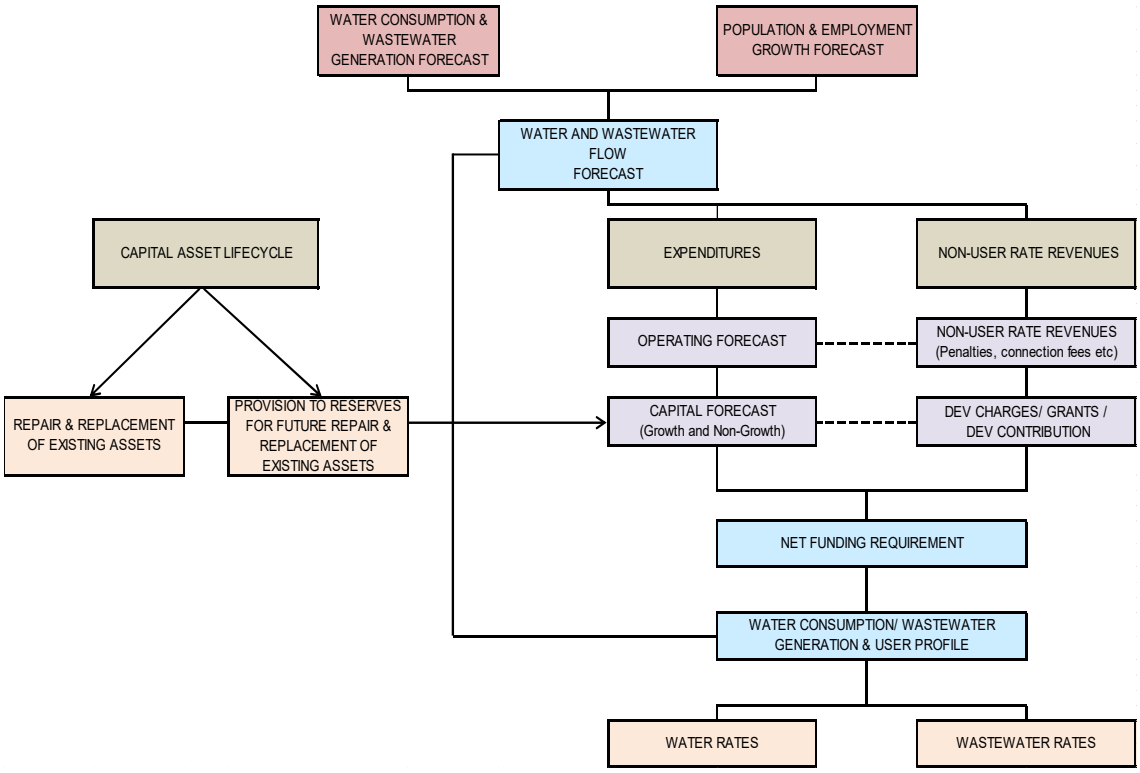
B. STUDY OBJECTIVE

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



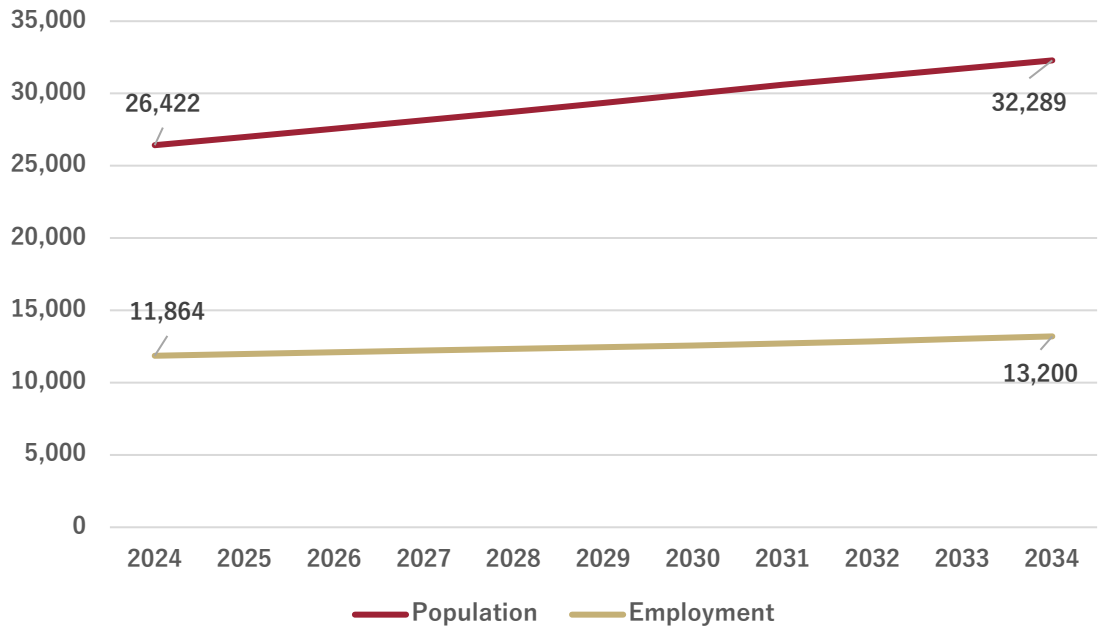
2. DEMAND ANALYSIS

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 2024 Development Charges Background Study. The Town's current estimated census population of approximately 26,400 persons is expected to increase to about 32,300 persons by 2034. Furthermore, the number of employees in Collingwood is expected to increase from approximately 11,900 in 2024 to approximately 13,200 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.

Figure 2: Population and Employment Forecast 2024-2034



Note: Population reflects census population. Employment based on "place of work" which excludes "work at home."

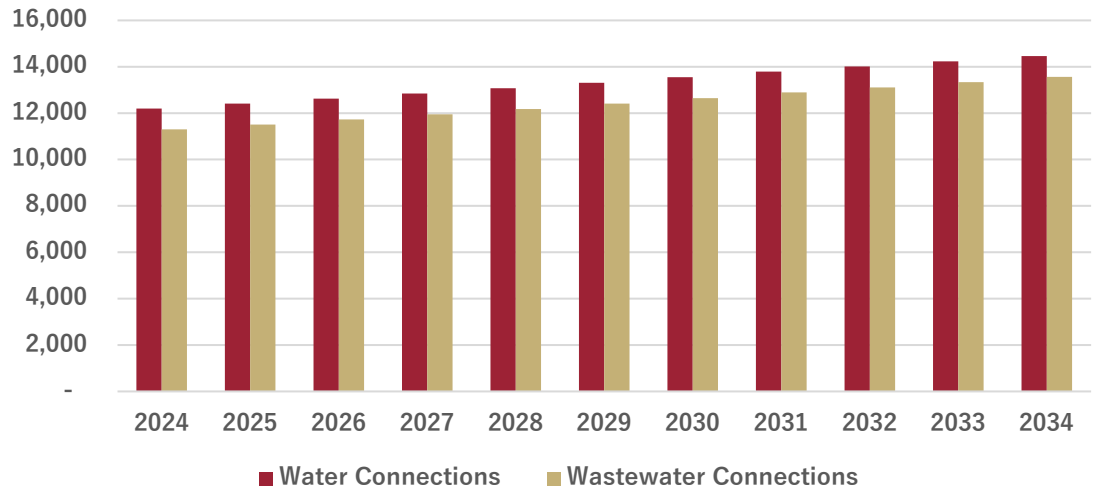
B. PROJECTION OF NEW CONNECTIONS

The consumption and connection data from the previous four years (2019-2023) and discussions with Town staff regarding future development activity helped inform the forecast of new connections contained in this study[2].

It is estimated the Town will have about 12,200 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 14,500 which equates to an average increase of 226 new water connections per year over the planning horizon.

Of note, there are fewer customers who receive wastewater services in the Town– estimated to be about 11,300 connections in 2024. That said, the growth increment assumed for wastewater is similar to water for the purposes of this study (equal to about 226 new connections per year). Figure 3 below shows the projected water and wastewater connections over the next 10-year period.

Figure 3: Water and Wastewater Connections 2024-2034



[2] Data was provided to reflect connections as of year-end 2023 and Hemson estimated the number of billable units and connections in 2024 as the basis for the forecast.

C. CONSUMPTION FORECAST

To develop the water and wastewater demand forecast over the planning period to 2034, a review of actual metered consumption from 2011 to 2023 was undertaken. To assess data for each of the four consumption tiers, the period from 2019 to 2023 was considered, after the period the Town underwent its rate structure change. 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. From a trend perspective, historical total consumption patterns since 2011 have remained relatively flat. This reflects a decrease over the period from 2011 to 2015, with a steady increase since that time attributed to both growth in the Town and increasing consumption patterns seen during the Covid 19 pandemic.

In 2024, the Town is estimated to bill about 2.75 million m^3 of water. Total consumption for water is expected to grow to about 2.91 million m^3 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 take shape and more traditional consumption trends observed pre-pandemic are realized. Despite the stabilized consumption projected through to 2027, billable consumption is projected to modestly increase over the planning period as a result of the new growth anticipated to take place to 2034.

It is also noted that actual billable water is slightly lower than the billable water associated to wastewater billing (about 1.2% lower). This is attributed to accounts that are billed for processed water independently from the Town's regular billing but billed for wastewater through the Town's regular rates. This adjustment to process water accounts is continued throughout the forecast period 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.

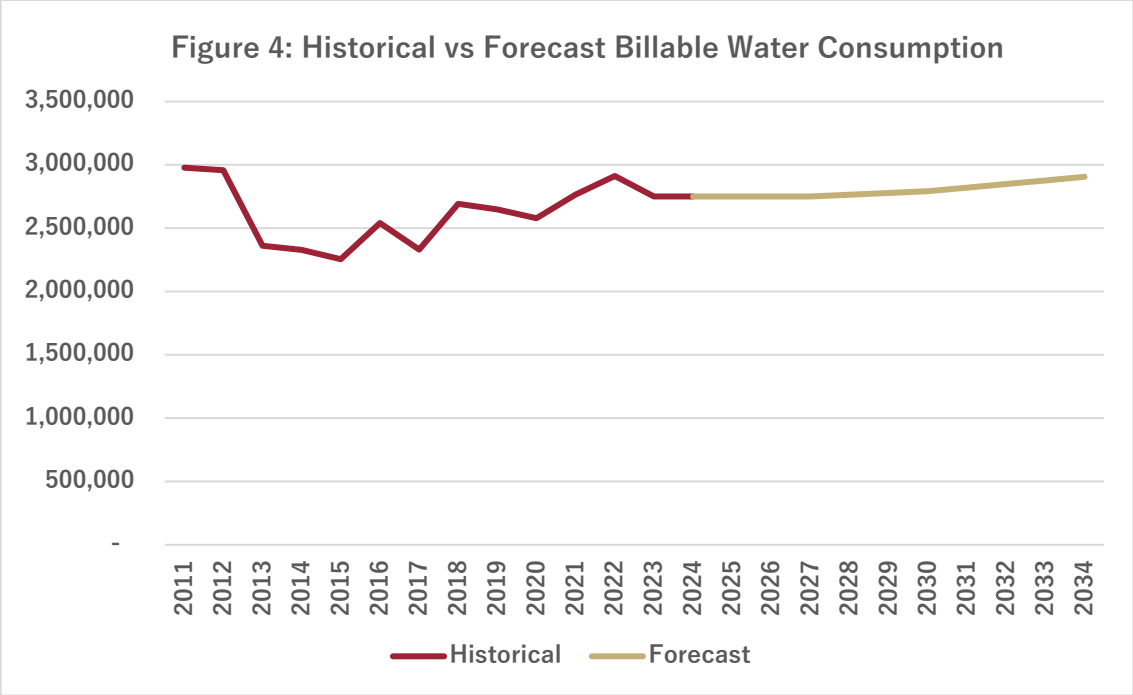


Figure 4: Historical vs Forecast Billable Water Consumption
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
-
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
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2022
2023
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2030
2031
2032
2033
2034
Historical
Forecast

3. Operation and Maintenance Costs

The Town of Collingwood 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 and also include debt-servicing costs.

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 $7.7 million and anticipated to increase to $11.2 million by 2034. The decrease in operating costs in 2025 is attributable to one-time costs in 2024 and adjustments to contractual costs that were higher in 2024 than in past years.

TABLE 1: FORECAST OF WATER OPERATING EXPENDITURES ($000)

Expense Category	Inflation Factor	2024 Budget	2025 Projected	2029 Projected	2034 Projected
Water Administration	2% - 5%	$3,119.7	$3,117.5	$3,406.5	$3,807.4
Water Distribution	2% - 3%	$2,327.0	$1,983.3	$2,578.9	$2,866.8
Water Treatment	2% - 10%	$2,121.7	$1,591.7	$1,886.7	$2,360.3
Debt Payments		$102.0	$97.4	$581.6	$1,512.3
New Estimated Plant Expenditures (Collingwood Share)		$-	$-	$-	$424.1
Provision for Service Enhancements		$-	$-	$121.4	$268.2
Total Water Operating Expenditures		**$7,670.3**	**$6,789.8**	**$8,575.2**	**$11,239.0**

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 $6.5 million and are expected to increase to about $9.6 million by 2034. The decrease in operating costs in 2025 is associated to debt terms for wastewater ending in 2024 and adjustments to contractual costs that were higher in 2024 than in past years.

TABLE 2: FORECAST OF WASTEWATER OPERATING EXPENDITURES ($000)					
Expense Category	Inflation Factor	2024 Budget	2025 Budget	2029 Projected	2034 Projected
Wastewater Overhead	2% - 5%	$1,442.4	$1,403.0	$1,531.0	$1,708.2
Wastewater Treatment and Disposal	2% - 5%	$3,763.7	$3,856.3	$4,253.7	$4,819.4
Sanitary Sewer Collection	2% - 3%	$567.0	$579.0	$629.5	$698.9
Debt Payments		$770.8	$249.1	$-	$1,221.4
New Estimated Plant Expenditures		$-	$-	$-	$925.5
Provision for Service Enhancements		$-	$-	$121.4	$268.2
Total Wastewater Operating Expenditures		**$6,543.9**	**$6,087.4**	**$6,535.7**	**$9,641.7**

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;
- an increase in debt funded debt payments needed to undertake repair and replacement works and to maintain adequate reserve levels;
- new expenditures associated to the expansion at the water treatment plant and wastewater treatment plant in future years; and
- the inclusion for enhanced services and programs, 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, some operating expenditures are assumed to increase at a rate of 2.0% annually to account for inflation, with higher annual inflation factors are used for select budget item categories. Salaries and employee benefits are assumed to increase at an annual rate of 2.25%. Fuel and utility costs are assumed to increase at 5.0% annually. Contracted services are assumed to increase at 3.0% per annum while building repairs and maintenance are assumed to increase at 10% per annum.

ii. Service Enhancements and Mandatory Requirements

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 enhanced services and programs, which may be required in the future has been incorporated into the analysis. As a result, four additional FTE (at $110,000 per annum) has been assumed (two starting in 2026 and two in 2030) in order to continue to provide the current levels of service. The cost has been allocated evenly between water and wastewater services and the salary is adjusted annually for inflation (at a rate of 2.0%).

For water services, additional costs have been assumed to operate the expansion to the Town's new water treatment plant. By 2034, this amounts to about $424,100 based on operating costs to operate the existing plant. Similarly for wastewater services, additional costs have been assumed to operate the expansion to the Town's wastewater treatment facility which amounts to about $925,500 by 2034 based on operating costs to operate the existing facility. These costs have been included as part of best practices for financial planning for water and wastewater rate setting, however these costs have been assumed to start over the longer-term, 2030 for water and 2032 for wastewater.

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

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 $102,000 for water and $770,800 for wastewater. The term of this debt will end in 2028.

By 2034 however, the Town will need to undertake additional debt to undertake rate funded capital works. Debt payments are forecast to be about $1.5 million for water and $1.2 million for wastewater by 2034. Further discussion on the need for debt financing in future years is discussed in Section 3.

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, rentals, sale of water meters, water connection charges, public disposal fees and other revenues. Non-rate revenues also include the sale of process water and the sale of water to the Towns of New Tecumseth and the Blue Mountains.

Table 3 shows the Town is expecting to recover approximately $2.9 million for the water services and approximately $1.1 million for the wastewater services through non-user rate revenues in 2024. By 2034, these amounts are anticipated to represent approximately $3.7 million and $1.4 million for the water and wastewater services, respectively.

All non-user rate revenues were adjusted at a rate of 2% in the forecast period to account for inflation. This includes revenue from the sale of water to the Towns of New Tecumseth and the Blue Mountains to account for rate adjustments in the respective agreements. Non-user rate revenues are set out in the detailed rate calculations illustrated in Appendix A.

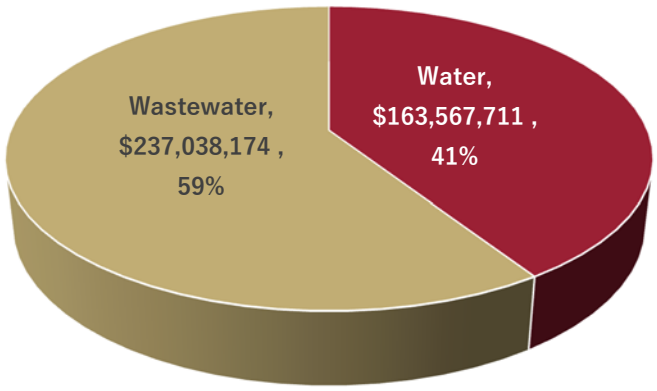
TABLE 3: PROJECTED NON-USER RATE REVENUES ($000)

System	2024 Budget	2025 Forecast	2029 Forecast	2034 Forecast
Water	$2,934.1	$3,086.2	$3,340.6	$3,688.3
Wastewater	$1,146.9	$1,169.8	$1,266.3	$1,398.1
Total	**$4,081.0**	**$4,256.1**	**$4,606.9**	**$5,086.4**

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 $400.6 million. Of this value, about $163.6 million (41%) is related to water assets and $237.0 million (59%) is associated to wastewater infrastructure as shown in Figure 5.

Figure 5: Summary of Water and Wastewater Services by Total Replacement Value (2024$)



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.

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.

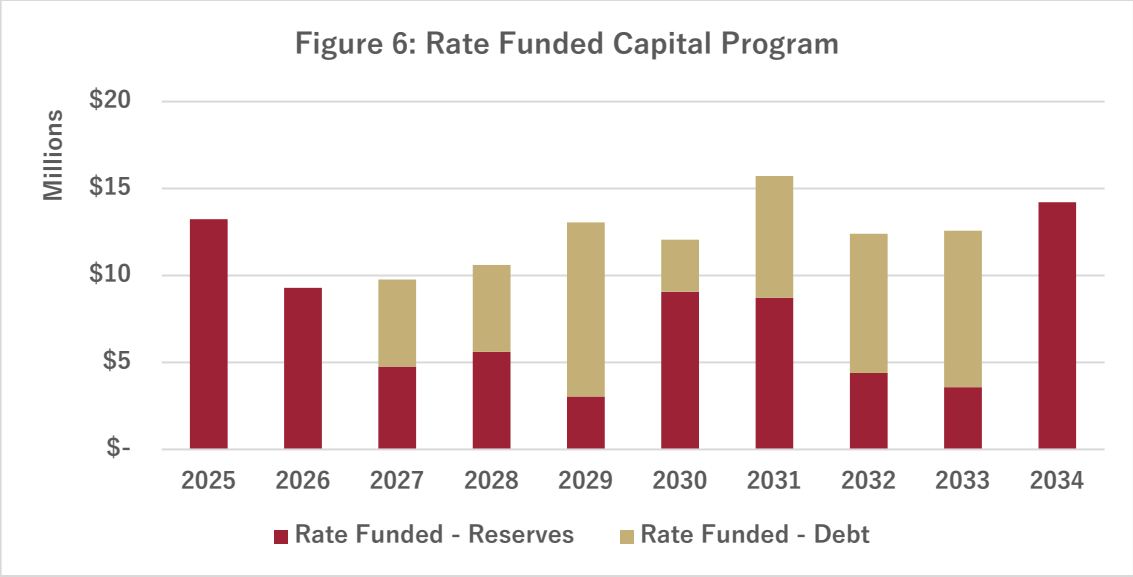
i. Projected Non-Growth Capital Expenditures

The total rate funded (non-growth related) capital program for the Town is summarized in Figure 6 below. Over the 2025-2034 period, about $122.9 million in rate-funded capital projects is required to support both water and wastewater services. This is made up of:

- About $56.3 million in rate-funded capital projects is required to support water services with about $30.3 million funded from reserves and about $26.0 million requiring debt financing.
- About $66.6 million in rate-funded capital projects is required to support the wastewater services with about $45.6 million funded from reserves and about $21.0 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 or wastewater 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 as an effort to save for future repair and eventual replacement of existing assets while paying for the capital requirements identified in Figure 6.



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.

The calculated full cost average annual contribution requirement amounts to $5.3 million for water services and $5.9 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. However, this excludes the infrastructure associated to the expansion at the water and wastewater treatment plants which make up a significant share of the growth-related capital program. The timing of full completion of these projects is not expected for several years, therefore savings for repair/replacement are not needed at this time. The annual contribution requirements have been identified in this analysis and detailed in Appendix A.

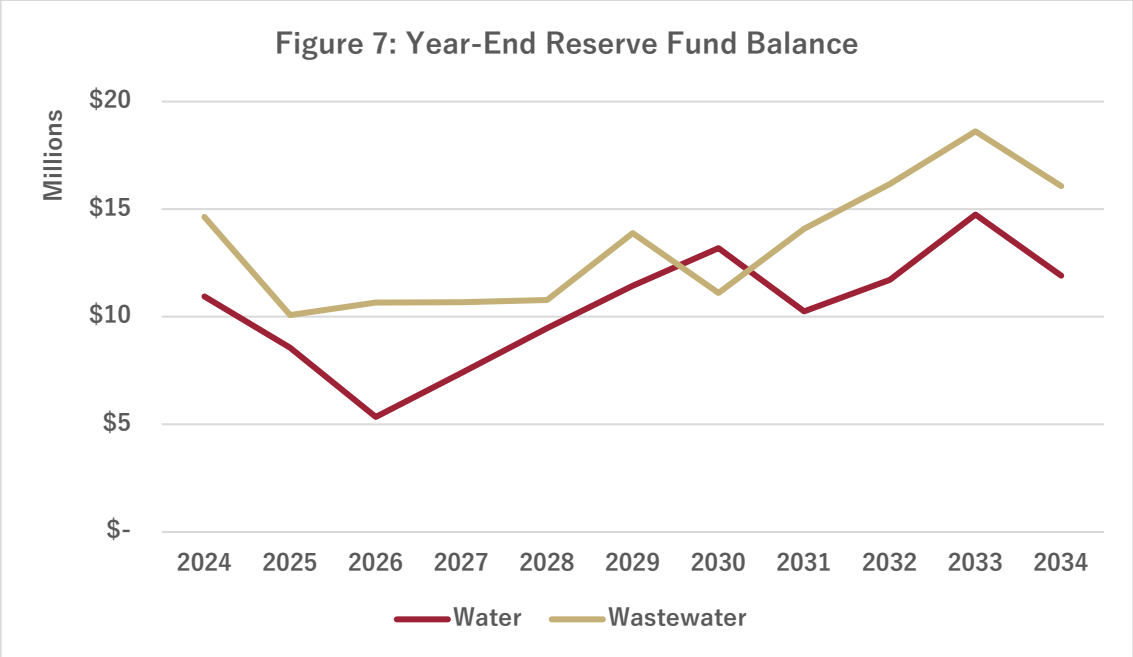
To mitigate an impractical increase of the user rates, reserve fund contributions are phased in gradually and managed in the context of the Town's existing accumulated funds. Table 4 provides a snapshot of the rate funded capital contribution by 2034 relative to the calculated annual capital investment 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.

TABLE 4: RATE FUNDED CONTRIBUTION RELATIVE TO CALCULATED ANNUAL CAPITAL CONTRIBUTION (2034)		
System	**Rate Funded Contribution[1]**	**Calculated Full Cost Contribution[2]**
Water	$4,903,000 *(92% of total Calculated)*	$5,315,000
Wastewater	$5,836,000 *(99% of total Calculated)*	$5,878,000
Total	**$10,739,000** *(96% of total Calculated)*	**$11,193,000**

Note 1: Includes rate funded debt payments for the share of non-growth-related capital expenditure.
Note 2: Excludes infrastructure associated to expansion at the Town's water and wastewater treatment plants.

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 $10.9 million for water services and about $14.6 million for wastewater services. The analysis estimates the 2034 reserve balances to be approximately $11.9 million and $16.1 million for water and wastewater, respectively. It is important to note that although the wastewater reserve balance grows quickly towards the end of the planning period, this will be reduced if any rate-funded capital projects are added to the 10-year capital plan above what has been identified as longer-term projects may require replacement sooner than anticipated. Furthermore, the reserve balances assume that debt financing will be utilized for a portion of the capital program, to keep reserve levels stable over the period.



iv. Projected Growth Capital Expenditures

The utility rate analysis only captures the non-growth 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 shares of water and wastewater infrastructure outlined in the Town's 2024 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 Collingwood has a two-part rate structure in place:

1) A monthly fixed charge 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 water or wastewater services. The fixed charges are also differentiated by meter size.

2) A variable charge based on the volume of water consumed and wastewater generated. The Town currently has in place a consumption-based humpback tiered charge that is applied to each cubic metre consumed. The variable charge per cubic meter is differentiated for each of the four tiers. The charge increases for the first three tiers and then is reduced in the fourth tier. Unlike water consumption, most wastewater flows are not individually metered, and wastewater flows were assumed to be equivalent to water flows for those customers receiving both services.

TABLE 5: IN-FORCE 2024 UTILITY RATES		
Fixed Charge ($/month)	**Water**	**Wastewater**
Up to 1 ¼ inch	$18.51	$35.35
1 ¼ inch	$23.39	$44.77
1 ½ inch	$35.15	$67.15
2 inches	$52.22	$98.97
3 inches	$78.09	$148.46
4 inches	$118.35	$223.86
6 inches	$177.89	$336.94
8 inches	$236.68	$448.88
10 inches	$355.76	$675.08
Consumption Charge ($/m3)		
Tier 1 (0 – 8 m^3)	$1.050	$1.072
Tier 2 (8 – 15 m^3)	$1.100	$1.126
Tier 3 (15 – 150 m^3)	$1.210	$1.233
Tier 4 (> 150 m^3)	$0.890	$0.912

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. Currently, the fixed charge generates about 60% 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. This relationship should be carefully monitored, and if overall consumption declines to a point which impacts the Town revenue stream to fund expenses, it may be necessary to review this structure and increase the amount of funds generated from the fixed charges.

The existing rate structure is set up to provide the Town residential water users with control over their bill while the humpback block rate structure employed for higher use customers maintains the strong economic development incentive to the business community.

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	$6,789.8	$6,087.4
2	Contribution To/(From) Reserves	$2,372.7	$3,389.9
3	*Less: Non-Rate Revenue*	($3,086.2)	($1,169.8)
	Total Net Rate Funding Need = (1+2+3)	**$6,076.3**	**$8,307.4**

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 $6.1 million and $8.3 million respectively. This is the amount of revenue which must be collected through the sale of water and treatment 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. It is proposed that both fixed and variable components for water and wastewater services increase at a rate of 5.5% and 3.5% per annum respectively.

TABLE 7: CALCULATED 2025 UTILITY RATES		
Fixed Charge ($/month)	**Water**	**Wastewater**
Up to 1 ¼ inch	$19.53	$36.59
1 ¼ inch	$24.68	$46.34
1 ½ inch	$37.08	$69.50
2 inches	$55.09	$102.43
3 inches	$82.38	$153.66
4 inches	$124.86	$231.70
6 inches	$187.67	$348.73
8 inches	$249.70	$464.59
10 inches	$375.33	$698.71
Consumption Charge ($/m3)		
Tier 1 (0 – 8 m^3)	$1.108	$1.110
Tier 2 (8 – 15 m^3)	$1.161	$1.165
Tier 3 (15 – 150 m^3)	$1.277	$1.276
Tier 4 (> 150 m^3)	$0.939	$0.944

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 and expansions at the treatment plants, continued repayment of existing debt and four new FTEs to manage the system. These enhanced services may be required for the Town to continue to adapt to ongoing legislative requirements and customer demands. The water and wastewater net rate funding requirements are projected to increase to about $10.9 million and $12.9 million over the ten-year period. Figure 8 below provides a snapshot of the annual year-over-year projections to 2034.

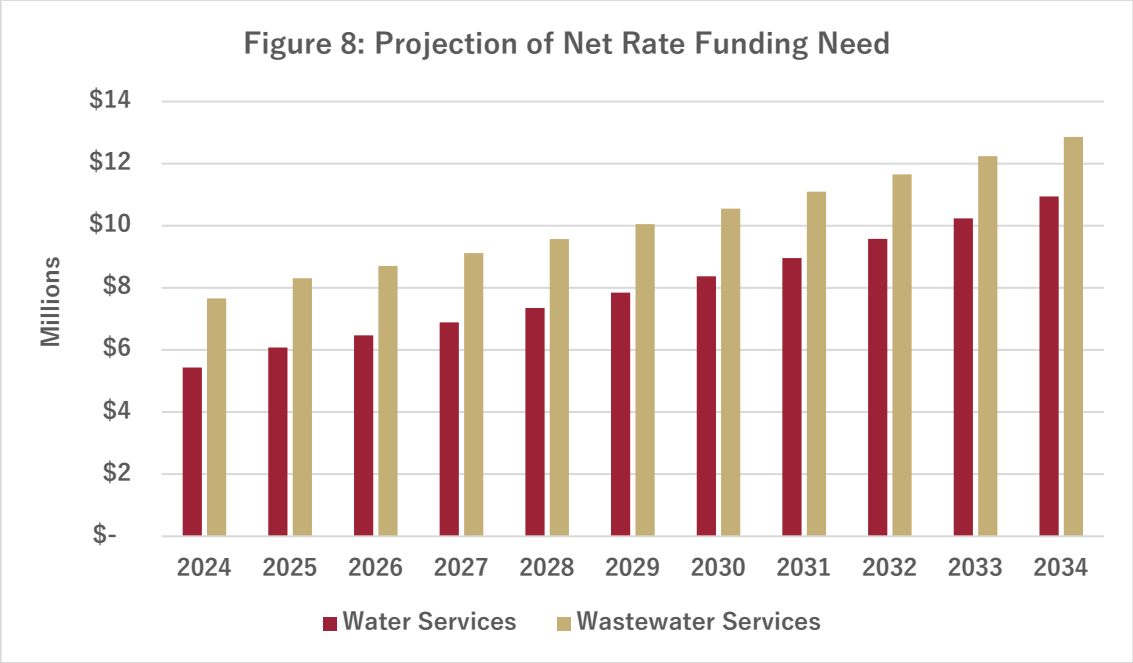
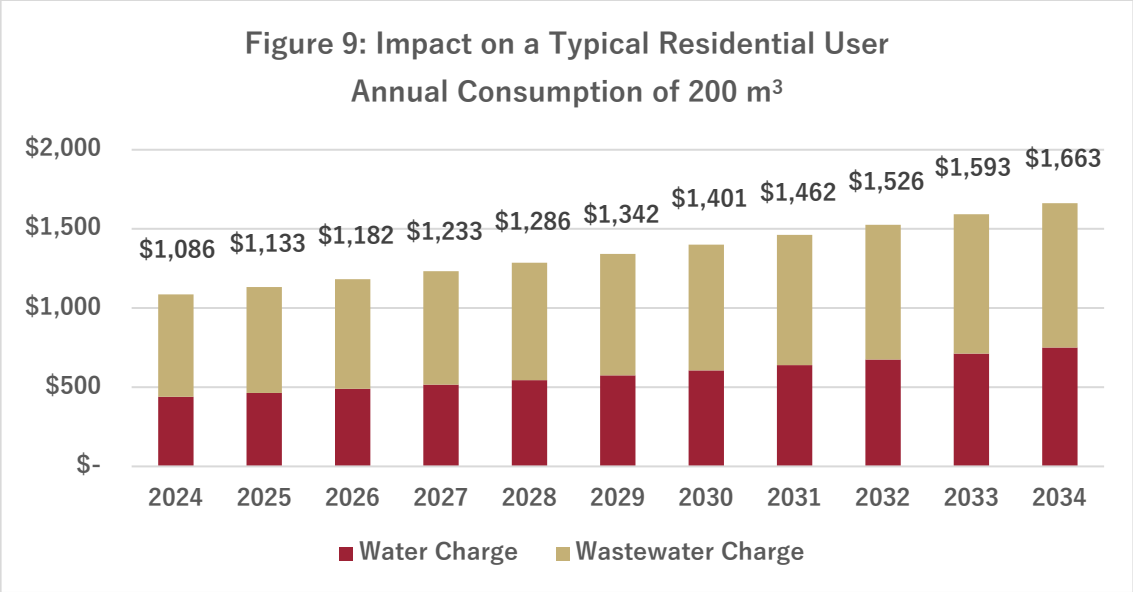


Table 8 below outlines the proposed utility rates required over the immediate 5-year period to support the system and the typical annual water and wastewater bill. A few important considerations:

- Water fixed monthly fees and consumption charges are proposed to increase by 5.5% in each of the next 5 years.
- Wastewater fixed monthly fees and consumption charges are proposed to increase by 3.5% in each of the next 5 years.

TABLE 8: CALCULATED UTILITY RATES (5-YEAR PROJECTION)					
All Accounts	**2025**	**2026**	**2027**	**2028**	**2029**
Water Services					
Fixed Monthly Fee per Connection [1]					
(Up to 1 ¼ inch)	$19.53	$20.60	$21.74	$22.93	$24.19
Tier 1 Consumption Charge ($/m^3): 0-8 m^3	$1.108	$1.169	$1.233	$1.301	$1.372
Tier 2 Consumption Charge ($/m^3): 8-15 m^3	$1.161	$1.224	$1.292	$1.363	$1.438
Tier 3 Consumption Charge ($/m^3): 15-150 m^3	$1.277	$1.347	$1.421	$1.499	$1.581
Tier 4 Consumption Charge ($/m^3): >150 m^3	$0.939	$0.991	$1.045	$1.103	$1.163
Change (%)	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*
Water Bill (200 m^3/annum)	**$464**	**$489**	**$516**	**$544**	**$574**
Change (%)	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*
Wastewater Services					
Fixed Monthly Fee per Connection					
(Up to 1 ¼ inch) [1]	$36.59	$37.87	$39.19	$40.56	$41.98
Tier 1 Consumption Charge ($/m^3): 0-8 m^3	$1.110	$1.148	$1.189	$1.230	$1.273
Tier 2 Consumption Charge ($/m^3): 8-15 m^3	$1.165	$1.206	$1.248	$1.292	$1.337
Tier 3 Consumption Charge ($/m^3): 15-150 m^3	$1.276	$1.321	$1.367	$1.415	$1.464
Tier 4 Consumption Charge ($/m^3): >150 m^3	$0.944	$0.977	$1.011	$1.047	$1.083
Change (%)	*3.50%*	*3.50%*	*3.50%*	*3.50%*	*3.50%*
Wastewater Bill (200 m^3/annum)	**$669**	**$692**	**$717**	**$742**	**$768**
Change (%)	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*
Total Water & Wastewater					
Total Typical Bill (200 m^3/annum)	**$1,133**	**$1,182**	**$1,233**	**$1,286**	**$1,342**
Change (%)	*4.31%*	*4.32%*	*4.33%*	*4.34%*	*4.35%*
Note 1: Only the meter size of up to 1 ¼ inches is illustrated, however, the percentage rate increase would be applied uniformly to all water and wastewater meter sizes.					

On average, the typical bill increases for a household consuming 200 m^3 would be 4.3% per annum over the 5-year period shown above. As shown in Figure 9, the total charge per typical household is expected to reach $1,342 by 2029 and $1,663 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 in a fairly healthy position with about $10.9 million in water and $14.6 million 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" seen below in Figure 10. For the purposes of this analysis, the minimum balance was determined to represent:

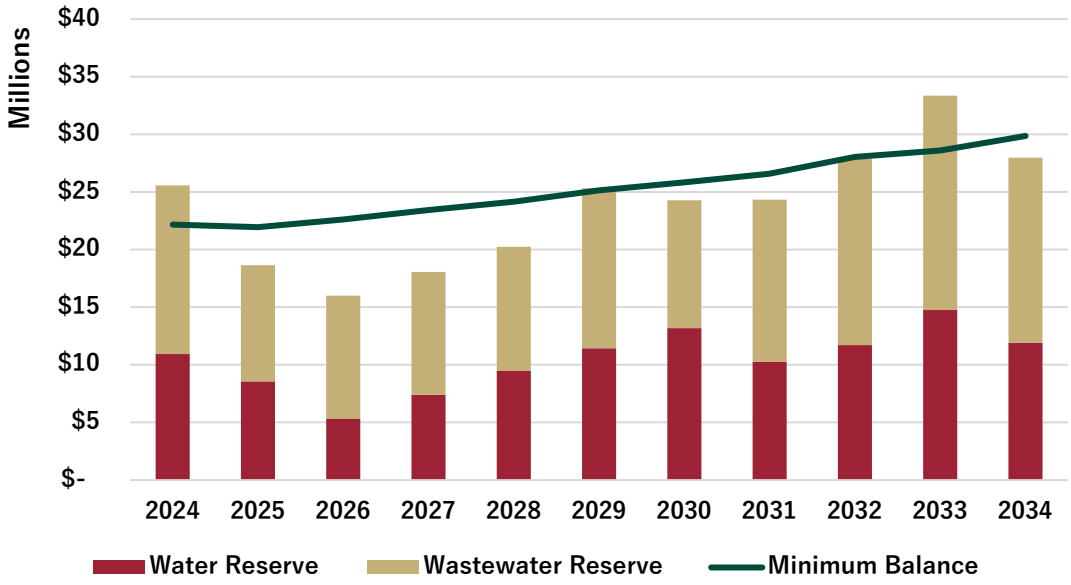
1. 4% of the Town's water and wastewater asset replacement value; plus

2. 6 months of operational expenses.

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. 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.

Figure 10: Summary of Water and Wastewater Rate-Funded Year-End Reserve Balances



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.

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 4.3% per annum on average over the planning period. The calculated utility rates show increases to both the fixed and variable rates each year over the period to manage costs.

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. It is also important that the Town continues to monitor its level of debt especially in years where significant capital projects will need to be financed. 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 - PAGE 1

TOWN OF COLLINGWOOD
2024 WATER & WASTEWATER RATE STUDY
WATER RATE CALCULATIONS

Calculation of Net Water Rate Requirement	2024 Budget	2025 Projected	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected
Operating Expenditures											
Water Administration	$ 3,119,659	$ 3,117,452	$ 3,187,237	$ 3,258,644	$ 3,331,712	$ 3,406,484	$ 3,483,001	$ 3,561,307	$ 3,641,446	$ 3,723,463	$ 3,807,407
Water Distribution	$ 2,327,028	$ 1,983,301	$ 1,943,842	$ 2,478,254	$ 2,009,742	$ 2,578,932	$ 2,234,123	$ 2,199,854	$ 2,751,123	$ 2,279,611	$ 2,866,760
Water Treatment	$ 2,121,664	$ 1,591,651	$ 1,659,605	$ 1,731,266	$ 1,806,883	$ 1,886,725	$ 1,971,080	$ 2,060,261	$ 2,154,606	$ 2,254,478	$ 2,360,272
Debt Payments (Existing)	$ 101,995	$ 97,443	$ 92,953	$ 88,463	$ 83,985	$ -	$ -	$ -	$ -	$ -	$ -
Debt Payments (Future)	$ -	$ -	$ -	$ -	$ 290,818	$ 581,636	$ 872,454	$ 1,046,945	$ 1,163,272	$ 1,337,763	$ 1,512,254
New Estimated Plant Expenditures (Collingwood Share)		$ -	$ -	$ -	$ -	$ -	$ 391,836	$ 399,673	$ 407,666	$ 415,819	$ 424,136
Provision for Service Enhancements (2 New FTE)	$ -	$ -	$ 114,444	$ 116,733	$ 119,068	$ 121,449	$ 247,756	$ 252,711	$ 257,765	$ 262,920	$ 268,179
Subtotal Annual Gross Operating Expenditures	**$ 7,670,346**	**$ 6,789,847**	**$ 6,998,081**	**$ 7,673,359**	**$ 7,642,209**	**$ 8,575,227**	**$ 9,200,250**	**$ 9,520,751**	**$ 10,375,878**	**$ 10,274,054**	**$ 11,239,008**
Capital Expenditures											
Non-Growth Related Capital (Budget)	$ 5,863,433	$ 4,998,906	$ 5,994,129	$ 5,590,709	$ 6,180,438	$ 5,971,277	$ 4,213,165	$ 8,144,665	$ 4,624,375	$ 3,970,506	$ 6,580,973
Debt Financing				$ (5,000,000)	$ (5,000,000)	$ (5,000,000)	$ (3,000,000)	$ (2,000,000)	$ (3,000,000)	$ (3,000,000)	
Sub-Total Capital	**$ 5,863,433**	**$ 4,998,906**	**$ 5,994,129**	**$ 590,709**	**$ 1,180,438**	**$ 971,277**	**$ 1,213,165**	**$ 6,144,665**	**$ 1,624,375**	**$ 970,506**	**$ 6,580,973**
Contribution To/(from) Reserves											
Calculated Annual Contribution Incl. Growth (Net of Existing Reserves)	*$ 2,859,166*	*$ 3,041,118*	*$ 3,193,939*	*$ 3,374,906*	*$ 3,499,859*	*$ 3,849,112*	*$ 4,331,930*	*$ 4,610,638*	*$ 4,910,010*	*$ 5,159,822*	*$ 5,315,115*
Contribution To/(from) Reserves	$ 697,130	$ 2,372,730	$ 2,617,483	$ 2,422,445	$ 2,980,689	$ 2,607,914	$ 2,578,505	$ 2,912,814	$ 2,744,413	$ 3,577,480	$ 3,391,087
Subtotal Reserve Contributions	**$ 697,130**	**$ 2,372,730**	**$ 2,617,483**	**$ 2,422,445**	**$ 2,980,689**	**$ 2,607,914**	**$ 2,578,505**	**$ 2,912,814**	**$ 2,744,413**	**$ 3,577,480**	**$ 3,391,087**
Total Annual Expenditures	**$ 8,367,476**	**$ 9,162,577**	**$ 9,615,564**	**$ 10,095,804**	**$ 10,622,897**	**$ 11,183,140**	**$ 11,778,755**	**$ 12,433,564**	**$ 13,120,291**	**$ 13,851,534**	**$ 14,630,095**
Non-Rate Revenues											
Water Administration	$ (592,134)	$ (603,977)	$ (616,056)	$ (628,377)	$ (640,945)	$ (653,764)	$ (666,839)	$ (680,176)	$ (693,779)	$ (707,655)	$ (721,808)
Water Distribution	$ (213,600)	$ (217,872)	$ (222,229)	$ (226,674)	$ (231,208)	$ (235,832)	$ (240,548)	$ (245,359)	$ (250,266)	$ (255,272)	$ (260,377)
Water Treatment	$ (2,128,338)	$ (2,264,389)	$ (2,309,677)	$ (2,355,871)	$ (2,402,988)	$ (2,451,048)	$ (2,500,069)	$ (2,550,070)	$ (2,601,072)	$ (2,653,093)	$ (2,706,155)
Total Non-Rate Revenues	**$ (2,934,072)**	**$ (3,086,238)**	**$ (3,147,963)**	**$ (3,210,922)**	**$ (3,275,140)**	**$ (3,340,643)**	**$ (3,407,456)**	**$ (3,475,605)**	**$ (3,545,117)**	**$ (3,616,020)**	**$ (3,688,340)**
Net Rate Funding Need	**$ 5,433,404**	**$ 6,076,339**	**$ 6,467,601**	**$ 6,884,882**	**$ 7,347,757**	**$ 7,842,497**	**$ 8,371,299**	**$ 8,957,959**	**$ 9,575,173**	**$ 10,235,515**	**$ 10,941,755**

APPENDIX A
TABLE 1 - PAGE 2

TOWN OF COLLINGWOOD
2024 WATER & WASTEWATER RATE STUDY
WATER RATE CALCULATIONS

Calculation of Rate Revenue	2024 Budget	2025 Projected	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected
Metered Customer Fixed Charges (By Meter Size)											
Fixed Charge per Meter - (Monthly Fee)											
Up to 1 1/4 inch	$ 18.51	$ 19.53	$ 20.60	$ 21.74	$ 22.93	$ 24.19	$ 25.52	$ 26.93	$ 28.41	$ 29.97	$ 31.62
1 1/4 inch	$ 23.39	$ 24.68	$ 26.03	$ 27.47	$ 28.98	$ 30.57	$ 32.25	$ 34.02	$ 35.90	$ 37.87	$ 39.95
1 1/2 inch	$ 35.15	$ 37.08	$ 39.12	$ 41.27	$ 43.54	$ 45.94	$ 48.47	$ 51.13	$ 53.94	$ 56.91	$ 60.04
2 inch	$ 52.22	$ 55.09	$ 58.12	$ 61.32	$ 64.69	$ 68.25	$ 72.00	$ 75.96	$ 80.14	$ 84.55	$ 89.20
3 inch	$ 78.09	$ 82.38	$ 86.92	$ 91.70	$ 96.74	$ 102.06	$ 107.67	$ 113.60	$ 119.84	$ 126.44	$ 133.39
4 inch	$ 118.35	$ 124.86	$ 131.73	$ 138.97	$ 146.61	$ 154.68	$ 163.19	$ 172.16	$ 181.63	$ 191.62	$ 202.16
6 inch	$ 177.89	$ 187.67	$ 198.00	$ 208.89	$ 220.37	$ 232.50	$ 245.28	$ 258.77	$ 273.01	$ 288.02	$ 303.86
8 inch	$ 236.68	$ 249.70	$ 263.43	$ 277.92	$ 293.21	$ 309.33	$ 326.34	$ 344.29	$ 363.23	$ 383.21	$ 404.28
10 inch	$ 355.76	$ 375.33	$ 395.97	$ 417.75	$ 440.72	$ 464.96	$ 490.54	$ 517.52	$ 545.98	$ 576.01	$ 607.69
Increase (%)		*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*
Number of Metered Users											
Up to 1 1/4 inch	11,911	12,115	12,324	12,539	12,759	12,985	13,216	13,454	13,665	13,881	14,102
1 1/4 inch	33	34	35	36	37	38	39	40	41	42	43
1 1/2 inch	79	81	83	85	87	89	91	93	95	97	99
2 inch	125	127	129	131	133	135	137	139	141	143	145
3 inch	32	33	34	35	36	37	38	39	40	41	42
4 inch	14	15	16	17	18	19	20	21	22	23	24
6 inch	3	3	3	3	3	3	3	3	3	3	3
8 inch	3	3	3	3	3	3	3	3	3	3	3
10 inch	-	-	-	-	-	-	-	-	-	-	-
Total	**12,200**	**12,411**	**12,627**	**12,849**	**13,076**	**13,309**	**13,547**	**13,792**	**14,010**	**14,233**	**14,461**
Total Revenue from Fixed Charges		**$ 3,039,829**	**$ 3,264,083**	**$ 3,505,170**	**$ 3,764,333**	**$ 4,043,082**	**$ 4,342,875**	**$ 4,665,471**	**$ 5,001,313**	**$ 5,361,838**	**$ 5,748,609**
Metered Consumption Charges											
Consumption Charge (per m^3)											
Tier 1 (0 - 8 m3)	$ 1.050	$ 1.108	$ 1.169	$ 1.233	$ 1.301	$ 1.372	$ 1.448	$ 1.527	$ 1.611	$ 1.700	$ 1.794
Tier 2 (8 - 15 m3)	$ 1.100	$ 1.161	$ 1.224	$ 1.292	$ 1.363	$ 1.438	$ 1.517	$ 1.600	$ 1.688	$ 1.781	$ 1.879
Tier 3 (15 - 150 m3)	$ 1.210	$ 1.277	$ 1.347	$ 1.421	$ 1.499	$ 1.581	$ 1.668	$ 1.760	$ 1.857	$ 1.959	$ 2.067
Tier 4 (> 150 m3)	$ 0.890	$ 0.939	$ 0.991	$ 1.045	$ 1.103	$ 1.163	$ 1.227	$ 1.295	$ 1.366	$ 1.441	$ 1.520
Increase (%)		*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*
Billable Consumption (m^3)											
Tier 1 (0 - 8 m3)		918,009	918,009	918,009	922,599	927,212	931,848	941,166	950,578	960,084	969,685
Tier 2 (8 - 15 m3)		395,384	395,384	395,384	397,361	399,347	401,344	405,358	409,411	413,505	417,640
Tier 3 (15 - 150 m3)		625,761	625,761	625,761	628,890	632,034	635,195	641,547	647,962	654,442	660,986
Tier 4 (> 150 m3)		811,468	811,468	811,468	815,525	819,603	823,701	831,938	840,257	848,660	857,146
Total		**2,750,621**	**2,750,621**	**2,750,621**	**2,764,374**	**2,778,196**	**2,792,087**	**2,820,008**	**2,848,208**	**2,876,690**	**2,905,457**
Total Revenue from Consumption Charges		**$ 3,036,510**	**$ 3,203,518**	**$ 3,379,712**	**$ 3,583,424**	**$ 3,799,415**	**$ 4,028,424**	**$ 4,292,488**	**$ 4,573,860**	**$ 4,873,677**	**$ 5,193,146**
Grand Total Water Rate Revenue		**$ 6,076,339**	**$ 6,467,601**	**$ 6,884,882**	**$ 7,347,757**	**$ 7,842,497**	**$ 8,371,299**	**$ 8,957,959**	**$ 9,575,173**	**$ 10,235,515**	**$ 10,941,755**

APPENDIX A
TABLE 2 - PAGE 1

TOWN OF COLLINGWOOD
2024 WATER & WASTEWATER RATE STUDY
WASTEWATER RATE CALCULATIONS

Calculation of Net Wastewater Rate Requirement	2024 Budget	2025 Budget	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected
Operating Expenditures											
Wastewater Overhead	$ 1,442,402	$ 1,403,017	$ 1,433,950	$ 1,465,585	$ 1,497,941	$ 1,531,034	$ 1,564,881	$ 1,599,500	$ 1,634,910	$ 1,671,129	$ 1,708,177
Wastewater Treatment and Disposal	$ 3,763,727	$ 3,856,263	$ 3,951,437	$ 4,049,340	$ 4,150,064	$ 4,253,709	$ 4,360,376	$ 4,470,170	$ 4,583,202	$ 4,699,586	$ 4,819,443
Sanitary Sewer Collection	$ 567,000	$ 578,979	$ 591,212	$ 603,707	$ 616,467	$ 629,500	$ 642,810	$ 656,403	$ 670,287	$ 684,466	$ 698,948
Debt Payments (Existing)	$ 770,794	$ 249,123	$ 237,643	$ 226,163	$ 214,715	$ -	$ -	$ -	$ -	$ -	$ -
Debt Payments (Future)	$ -	$ -	$ -	$ -	$ -	$ -	$ 290,818	$ 290,818	$ 581,636	$ 872,454	$ 1,221,435
New Estimated Plant Expenditures (Collingwood Share)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 889,608	$ 907,400	$ 925,548
Provision for Service Enhancements (2 New FTE)	$ -	$ -	$ 114,444	$ 116,733	$ 119,068	$ 121,449	$ 247,756	$ 252,711	$ 257,765	$ 262,920	$ 268,179
Subtotal Annual Gross Operating Expenditures	**$ 6,543,923**	**$ 6,087,382**	**$ 6,328,686**	**$ 6,461,528**	**$ 6,598,256**	**$ 6,535,692**	**$ 7,106,640**	**$ 7,269,602**	**$ 8,617,408**	**$ 9,097,956**	**$ 9,641,729**
Capital Expenditures											
Non-Growth Related Capital (Budget)	$ 6,358,000	$ 8,237,940	$ 3,295,474	$ 4,174,005	$ 4,425,353	$ 7,074,373	$ 7,842,885	$ 7,574,069	$ 7,769,639	$ 8,605,521	$ 7,629,488
Debt Financing						$ (5,000,000)		$ (5,000,000)	$ (5,000,000)	$ (6,000,000)	
Sub-Total Capital	**$ 6,358,000**	**$ 8,237,940**	**$ 3,295,474**	**$ 4,174,005**	**$ 4,425,353**	**$ 2,074,373**	**$ 7,842,885**	**$ 2,574,069**	**$ 2,769,639**	**$ 2,605,521**	**$ 7,629,488**
Contribution To/(from) Reserves											
Calculated 10-year Avg. Annual Contribution (Net of Existing Reserves)	*$ 4,143,431*	*$ 4,267,734*	*$ 4,462,962*	*$ 4,612,445*	*$ 4,783,257*	*$ 4,960,233*	*$ 5,137,191*	*$ 5,316,594*	*$ 5,541,011*	*$ 5,707,223*	*$ 5,878,248*
Contribution To/(from) Reserves	$ 2,259,249	$ 3,389,856	$ 3,567,540	$ 3,874,122	$ 4,215,062	$ 4,779,349	$ 4,735,377	$ 5,145,152	$ 4,381,434	$ 4,514,336	$ 4,614,470
Subtotal Reserve Contributions	**$ 2,259,249**	**$ 3,389,856**	**$ 3,567,540**	**$ 3,874,122**	**$ 4,215,062**	**$ 4,779,349**	**$ 4,735,377**	**$ 5,145,152**	**$ 4,381,434**	**$ 4,514,336**	**$ 4,614,470**
Total Annual Expenditures	**$ 8,803,171**	**$ 9,477,237**	**$ 9,896,226**	**$ 10,335,650**	**$ 10,813,318**	**$ 11,315,040**	**$ 11,842,017**	**$ 12,414,754**	**$ 12,998,841**	**$ 13,612,292**	**$ 14,256,200**
Non-Rate Revenues											
Wastewater Treatment and Disposal	$ (963,861)	$ (983,139)	$ (1,002,801)	$ (1,022,857)	$ (1,043,315)	$ (1,064,181)	$ (1,085,465)	$ (1,107,174)	$ (1,129,317)	$ (1,151,904)	$ (1,174,942)
Sanitary Sewer Collection	$ (183,030)	$ (186,691)	$ (190,424)	$ (194,233)	$ (198,118)	$ (202,080)	$ (206,122)	$ (210,244)	$ (214,449)	$ (218,738)	$ (223,113)
Total Non-Rate Revenues	**$ (1,146,891)**	**$ (1,169,829)**	**$ (1,193,226)**	**$ (1,217,090)**	**$ (1,241,432)**	**$ (1,266,261)**	**$ (1,291,586)**	**$ (1,317,418)**	**$ (1,343,766)**	**$ (1,370,641)**	**$ (1,398,054)**
Net Rate Funding Need	**$ 7,656,280**	**$ 8,307,408**	**$ 8,703,000**	**$ 9,118,560**	**$ 9,571,886**	**$ 10,048,779**	**$ 10,550,431**	**$ 11,097,336**	**$ 11,655,075**	**$ 12,241,651**	**$ 12,858,145**

APPENDIX A
TABLE 2 - PAGE 2

TOWN OF COLLINGWOOD
2024 WATER & WASTEWATER RATE STUDY
WASTEWATER RATE CALCULATIONS

Calculation of Rate Revenue	2024 Budget	2025 Budget	2026 Projected	2027 Projected	2028 Projected	2029 Projected	2030 Projected	2031 Projected	2032 Projected	2033 Projected	2034 Projected
Metered Customer Fixed Charges (By Meter Size)											
Fixed Charge per Meter - (Monthly Fee)											
Up to 1 1/4 inch	$ 35.35	$ 36.59	$ 37.87	$ 39.19	$ 40.56	$ 41.98	$ 43.45	$ 44.98	$ 46.55	$ 48.18	$ 49.86
1 1/4 inch	$ 44.77	$ 46.34	$ 47.96	$ 49.64	$ 51.37	$ 53.17	$ 55.03	$ 56.96	$ 58.95	$ 61.02	$ 63.15
1 1/2 inch	$ 67.15	$ 69.50	$ 71.93	$ 74.45	$ 77.06	$ 79.75	$ 82.54	$ 85.43	$ 88.42	$ 91.52	$ 94.72
2 inch	$ 98.97	$ 102.43	$ 106.02	$ 109.73	$ 113.57	$ 117.55	$ 121.66	$ 125.92	$ 130.32	$ 134.89	$ 139.61
3 inch	$ 148.46	$ 153.66	$ 159.03	$ 164.60	$ 170.36	$ 176.32	$ 182.50	$ 188.88	$ 195.49	$ 202.34	$ 209.42
4 inch	$ 223.86	$ 231.70	$ 239.80	$ 248.20	$ 256.88	$ 265.88	$ 275.18	$ 284.81	$ 294.78	$ 305.10	$ 315.78
6 inch	$ 336.94	$ 348.73	$ 360.94	$ 373.57	$ 386.65	$ 400.18	$ 414.19	$ 428.68	$ 443.69	$ 459.21	$ 475.29
8 inch	$ 448.88	$ 464.59	$ 480.85	$ 497.68	$ 515.10	$ 533.13	$ 551.79	$ 571.10	$ 591.09	$ 611.78	$ 633.19
10 inch	$ 675.08	$ 698.71	$ 723.16	$ 748.47	$ 774.67	$ 801.78	$ 829.85	$ 858.89	$ 888.95	$ 920.06	$ 952.27
Increase (%)		*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*
Number of Metered Users											
Up to 1 1/4 inch	11,064	11,268	11,477	11,692	11,912	12,138	12,369	12,607	12,818	13,034	13,255
1 1/4 inch	23	24	25	26	27	28	29	30	31	32	33
1 1/2 inch	54	56	58	60	62	64	66	68	70	72	74
2 inch	104	106	108	110	112	114	116	118	120	122	124
3 inch	33	34	35	36	37	38	39	40	41	42	43
4 inch	14	15	16	17	18	19	20	21	22	23	24
6 inch	4	4	4	4	4	4	4	4	4	4	4
8 inch	3	3	3	3	3	3	3	3	3	3	3
10 inch	-	-	-	-	-	-	-	-	-	-	-
Total	**11,299**	**11,510**	**11,726**	**11,948**	**12,175**	**12,408**	**12,646**	**12,891**	**13,109**	**13,332**	**13,560**
Total Revenue from Fixed Charges		**$ 5,275,244**	**$ 5,564,710**	**$ 5,870,429**	**$ 6,193,261**	**$ 6,534,419**	**$ 6,894,881**	**$ 7,276,007**	**$ 7,660,449**	**$ 8,065,868**	**$ 8,492,991**
Metered Residential Consumption Charges											
Consumption Charge (per m^3)											
Tier 1 (0 - 8 m3)	$ 1.072	$ 1.110	$ 1.148	$ 1.189	$ 1.230	$ 1.273	$ 1.318	$ 1.364	$ 1.412	$ 1.461	$ 1.512
Tier 2 (8 - 15 m3)	$ 1.126	$ 1.165	$ 1.206	$ 1.248	$ 1.292	$ 1.337	$ 1.384	$ 1.433	$ 1.483	$ 1.535	$ 1.588
Tier 3 (15 - 150 m3)	$ 1.233	$ 1.276	$ 1.321	$ 1.367	$ 1.415	$ 1.464	$ 1.516	$ 1.569	$ 1.624	$ 1.680	$ 1.739
Tier 4 (> 150 m3)	$ 0.912	$ 0.944	$ 0.977	$ 1.011	$ 1.047	$ 1.083	$ 1.121	$ 1.160	$ 1.201	$ 1.243	$ 1.286
Increase (%)		*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*
Billable Consumption (m^3)											
Tier 1 (0 - 8 m3)		854,079	854,079	854,079	858,349	862,641	866,954	875,624	884,380	893,224	902,156
Tier 2 (8 - 15 m3)		365,827	365,827	365,827	367,656	369,494	371,342	375,055	378,806	382,594	386,420
Tier 3 (15 - 150 m3)		550,058	550,058	550,058	552,808	555,573	558,350	563,934	569,573	575,269	581,022
Tier 4 (> 150 m3)		1,013,062	1,013,062	1,013,062	1,018,127	1,023,218	1,028,334	1,038,617	1,049,003	1,059,494	1,070,088
Total		**2,783,026**	**2,783,026**	**2,783,026**	**2,796,941**	**2,810,926**	**2,824,980**	**2,853,230**	**2,881,762**	**2,910,580**	**2,939,686**
Total Revenue from Consumption Charges		**$ 3,032,165**	**$ 3,138,290**	**$ 3,248,131**	**$ 3,378,624**	**$ 3,514,360**	**$ 3,655,550**	**$ 3,821,329**	**$ 3,994,626**	**$ 4,175,783**	**$ 4,365,154**
Grand Total Wastewater Rate Revenue		**$ 8,307,408**	**$ 8,703,000**	**$ 9,118,560**	**$ 9,571,886**	**$ 10,048,779**	**$ 10,550,431**	**$ 11,097,336**	**$ 11,655,075**	**$ 12,241,651**	**$ 12,858,145**