



## **A. Staff Report for Committee of the Whole Meeting**

**Date of Meeting:** May 29, 2024

**Report Number:** SRCFS.24.026

**Department:** Corporate and Financial Services

**Division:** Financial Services

**Subject:** **SRCFS.24.026 - 2025 to 2032 Water and Wastewater Financial Plan**

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### **Purpose:**

To present for Council's approval, the City of Richmond Hill Water (and Wastewater) Financial Plan which was developed in partnership with Watson & Associates Economists Ltd., in order to meet the statutory requirements of the Safe Drinking Water Act, 2002, Ontario Regulation (O. Reg.) 453/07. This report does not represent a budgetary commitment on the part of the City on future water and wastewater operations.

### **Recommendation(s):**

- a) That the City of Richmond Hill Water Financial Plan, attached as Appendix B to staff report SRCFS.24.026, be approved as required under the Safe Drinking Water Act, 2002, O. Reg. 453/07 to maintain the City's municipal drinking water license;
- b) That a copy of the City of Richmond Hill Financial Plan be submitted to the Ministry of Municipal Affairs and Housing; and
- c) That a copy of the resolution approving the City of Richmond Hill Water Financial Plan be submitted to the Ministry of the Environment, Conservation and Parks (MECP) as required under the *Safe Drinking Water Act, 2002*, O. Reg. 453/07.

### **Contact Person:**

Lisa Chen, Manager, Financial Planning and Analysis, ext. 6311

### **Report Approval:**

**Submitted by:** Sherry Adams, Commissioner of Corporate and Financial Services

**Approved by:** Darlene Joslin, City Manager

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All reports are electronically reviewed and/or approved by the Division Director, Treasurer (as required), City Solicitor (as required), Commissioner, and City Manager. Details of the reports approval are attached.

### **Background:**

All municipalities providing water services are required to be licensed to operate the water system and part of the licensing requirement is for the City to submit a Financial Plan to the Province every five years. The last Financial Plan was submitted in 2019.

### **Safe Drinking Water Act, Ontario Regulation 453/07**

As a requirement of the Safe Drinking Water Act, 2002, O. Reg. 453/07, the Financial Plan is mandatory for water operations, and encouraged for wastewater operations. Staff must submit a Council resolution of the Financial Plan approval along with a copy the Financial Plan to the Ministry of Municipal Affairs and Housing and the Ministry of Environment, Conservation and Parks.

The intent of the legislation is for municipalities to identify future revenues and expenditures for capital, operating, reserve funds and project volume usage for at least five years into the future. The Financial Plan also assesses appropriate rates for full cost recovery. The final report to the Province is prepared according to Public Sector Accounting Board (PSAB) financial statement format.

The Financial Plan does not commit the City to use the figures as future budgets, however its main purpose is to meet the legislated requirements for financial sustainability outlining the future rates and funding necessary for full cost recovery. The Financial Plan is a living document with useful information that can be used during the annual budget review process with the Capital Sustainability Steering Committee and Budget Committee of the Whole. As assumptions and existing conditions change, the most current information will be factored into the actual budget process.

### **City of Richmond Hill Water and Wastewater Financial Plan Report – Appendix A**

The City of Richmond Hill 2025 to 2032 Water and Wastewater Financial Plan was developed in partnership with consultants from Watson & Associates Economists Ltd. and staff in Financial Services, Public Works Operations, Infrastructure Planning and Development Engineering, and Infrastructure Delivery, and is attached as Appendix A to this report. For purposes of discussion, the Financial Plan report will be referenced throughout the rest of this report. The formal report to be submitted to the Province formatted using PSAB guidelines is attached as Appendix B to this report. Only the Water portion of the Financial Plan is required for licensing purposes.

There are significant capital needs for water and wastewater services in the 2025 to 2032 period. Based on the best information available today, the 2024 Capital Forecast was revisited as part of analysis to smooth projected rate increases. Additional works

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may be identified over the next few years based on further asset management planning and master plans to be undertaken.

### **Financial/Staffing/Other Implications:**

The City of Richmond Hill 2025 to 2032 Water and Wastewater Financial Plan indicates financial sustainability as the City continues to: have available funding for capital acquisitions and renewal within the Financial Plan's eight-year period without the use of debt; project user rates that factor in full cost recovery while maintaining a reasonable annual average increase per household.

For discussion purposes, water and wastewater operations are treated as separate budgets and the report summarizes the analysis into the following sections:

- A. Operating Forecast
- B. Capital Infrastructure Needs
- C. Reserve and Reserve Funds
- D. Water and Wastewater Rates

#### **A. Operating Forecast**

The operating expense forecast mainly includes wholesale costs from the Region, the City's operational expenses, transfers to reserves/reserve funds and transfers between the Tax, Water and Wastewater and Stormwater funds to align resource costs to the appropriate budgets. The total of these costs represents the amount that must be recovered through water and wastewater billings in order to balance the budget.

#### **Water and Wastewater Purchases from York Region at Wholesale Rates**

The City purchases water from York Region at a wholesale rate and in turn, charges properties a retail rate based on actual water usage to generate revenue. Wastewater is then collected from the individual properties and directed back to York Region sanitary sewer mains. The total cost of water is calculated based on the volume multiplied by the wholesale rate. Water volumes have been forecasted at 21.2 million cubic metres in 2025 and indexed at 1% annually to 2032, extrapolated from the overall York Region volume projections. Wholesale rates have been forecasted at 3.3% annually from 2025 to 2027 based on the Region's 2021 Rate Study, and then at 2.90% annually from 2028 to 2032, based on Regional estimates. The cost of water purchased represents the largest expenditure within the Water and Wastewater Fund.

#### **Operational Expenses**

The Water and Wastewater Fund forecast includes the costs for all existing and projected new administrative personnel and Water and Wastewater Operators that support and maintain the entire network. These operational expenses include contracts for repairing watermain breaks, emergency repairs, preventative maintenance, as well as purchases of equipment, materials, insurance premiums, vehicle rentals and

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uniforms. Overall administrative and operational expenses will increase, as reflected in the operating forecast.

### **Chargebacks to and from Other Funds**

A chargeback approach is utilized at the City to ensure that all costs related to an activity are recovered from the appropriate funds. In the Tax fund, there are many City staff and resources that spend a portion of their time working on water and wastewater activities, either directly or indirectly. For example, the City has staff that oversee and maintain its fleet of all vehicles (e.g. Fleet Services Clerks and Mechanics), and a portion of costs are chargeable to Water and Wastewater Operators. The City estimates a percentage of staff and resources involved in water and wastewater activities to calculate an amount to Transfer to Operating Fund to reimburse charges paid initially by the tax-supported Operating Fund. Overall, the operating forecast shows an annual increase in the Transfer to Operating Fund to reflect the increased resource time allocation of all staff, including a higher allocation in the Water Resources sections to reflect increasing responsibilities due to legislative requirements, and to reflect the staffing outlook of four new staff during the eight-year forecast.

Following the same principles as paying a chargeback to the Operating Fund, it also recovers cost from the Stormwater Management Fund. This recovery represents the time spent by Water and Wastewater Operators on the stormwater management system including work completed on storm sewers and catch basins. The Financial Plan exercise identified a significant decrease in Transfers from Stormwater Management Fund recovery. In the previous Financial Plan, approximately 15% of operators' time was spent on stormwater activities, which has been reduced to 5% in 2025 and phased up 1% annually to 2029. In addition, water and sewer contracts and infill service connection costs also had a lower stormwater percentage allocation, while the overall decrease in insurance premiums had a similar effect on the total stormwater recovery from the 2024 budget. The recovery from the stormwater fund is netted against Water Meter Services, Administration and Operations expenses.

### **Contributions to Capital Reserve Funds**

The water and wastewater system is comprised of a diverse network of assets including watermains, water meters, specialty valves, hydrants, sanitary sewers and pumping stations. Maintaining these assets in a state of good repair and the eventual replacement of these assets are funded by the Water and Wastewater user rates through lifecycle contribution expenditures in the operating budget, i.e. Transfers to Reserves and Reserve Funds. Annual lifecycle contributions were determined based on a balance between setting aside sufficient funding for growing capital needs and affordable user rate increases required to balance the operating budget. How the contributions to capital reserve funds amount are determined is further discussed in Section C of this staff report.

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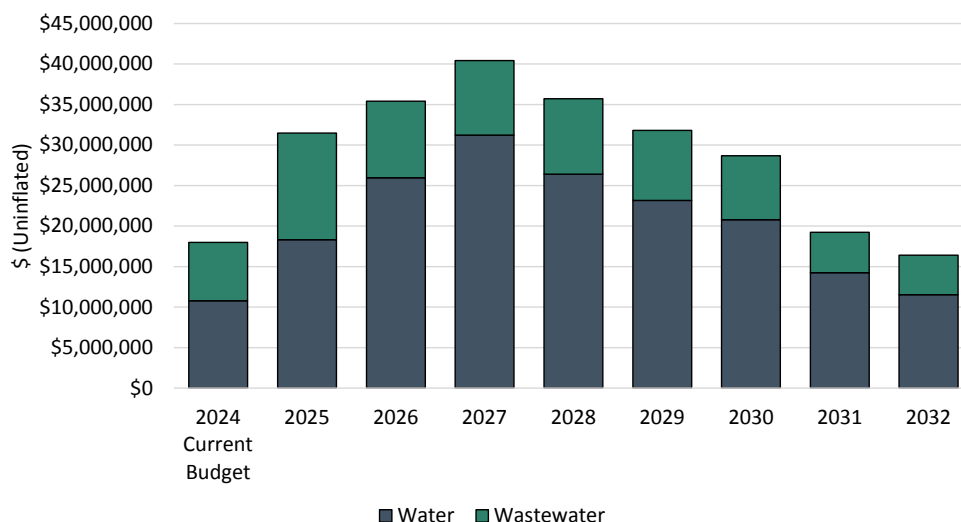
### Water and Wastewater Revenues

The user rate is the largest revenue source. The rate determines the revenue to be billed to the user based on usage. This rate is set by considering all costs paid to York Region, the City’s operating costs, lifecycle contributions and projected usage volumes. Investment income is another revenue source, although relatively smaller in comparison to user fees, it partially mitigates the impact of increasing operating costs. As a result of the continued high interest rate environment combined a review of the City’s short-term investment income distribution, investment income has been increased to \$250,000 annually in the operating forecast, split equally between water and wastewater operations. The net result of all operating costs minus operating revenues is to be recovered through water and wastewater billings via the annual rate calculations. It is a strategic balancing number and is further discussed in Section D of this report.

### B. Capital Infrastructure Needs

The 2024 Capital Forecast was used as a starting point and then adjusted to smooth out expenditures during the first half of the forecast as they were significant. Based on the annual capital reserve fund contributions in the operating forecast and the projected deficit balance in 2027 (as presented to the Capital Sustainability Steering Committee in March 2024), the capital infrastructure needs could not be sustained at reasonable rate increases without adjustments to the forecast. After adjustments, the capital infrastructure needs were updated as shown in Table 1 below. The eight-year capital infrastructure needs for Water is \$171 million while Wastewater is \$67 million, for a combined \$238 million.

**Table 1: 2024 to 2032 Capital Infrastructure Needs**



The capital forecast includes both state of good repair projects and growth-related projects to ensure sufficient capacity is available to service a growing population. A detailed list of the capital forecast is available in the last section of Appendix A.

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### C. Water and Wastewater Reserve Funds

Adjusted for inflation, the 2025 to 2032 Capital Infrastructure Needs for Water is \$186 million while Wastewater is \$73 million for a combined \$259 million. The annual capital funding requirements are outlined in Table 2.

**Table 2: Annual Capital Reserve Fund Needs**

Forecast (\$ millions)	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Water</b>									
Development Charges	2.14	0.82	5.43	0.85	0.87	0.88	0.90	0.92	12.80
Water Meter Repair and Replacement	0.11	0.12	0.16	0.17	0.54	1.93	0.14	0.19	3.37
Watermain Repair and Replacement	16.45	26.07	27.56	27.58	24.16	20.59	15.32	12.39	170.11
	<b>18.70</b>	<b>27.00</b>	<b>33.15</b>	<b>28.60</b>	<b>25.57</b>	<b>23.40</b>	<b>16.36</b>	<b>13.50</b>	<b>186.28</b>
<b>Wastewater</b>									
Development Charges	3.13	0.44	0.45	0.46	0.47	0.48	0.49	0.50	6.43
Sanitary Sewer Repair and Replacement	10.28	9.40	9.29	9.59	9.07	8.41	5.23	5.23	66.49
	<b>13.41</b>	<b>9.84</b>	<b>9.74</b>	<b>10.05</b>	<b>9.54</b>	<b>8.89</b>	<b>5.72</b>	<b>5.73</b>	<b>72.92</b>
<b>Total</b>	<b>32.10</b>	<b>36.85</b>	<b>42.89</b>	<b>38.64</b>	<b>35.11</b>	<b>32.29</b>	<b>22.08</b>	<b>19.23</b>	<b>259.19</b>

The following is a list of all the water and wastewater reserve and reserve funds and initial observations noted during the Financial Plan exercise:

1. Shared between Water and Wastewater
  - a. Water and Sewer Rate Stabilization Reserve (\$1 million target minimum balance) – to mitigate unanticipated or one time budget requirements
  - b. City-Wide Engineering Development Charges Reserve Fund – collected from developers to fund new infrastructure to support growth
  - c. Water Meter Reserve Fund – collected from developers to fund new water meters. The forecast was relatively small and sufficiently funded. For Financial Plan purposes it was not included in the analysis.
  - d. Water Meter Repair and Replacement Reserve Fund – collected from user rates to fund state of good repairs on existing water meters
2. Watermain Repair and Replacement Reserve Fund
  - a. \$5 million target minimum balance – collected from user rates to fund the state of good repair of water-related assets such as watermain replacements, on its own or through bundled road reconstruction projects

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- b. Watermain capital projects are significantly higher in the first half of the eight-year forecast and in the absence of any adjustments, will be a in deficit balance within two years
3. Sanitary Sewer Repair and Replacement Reserve Fund
  - a. \$5 million target minimum balance – collected from user rates to fund the state of good repair wastewater-related assets such as sanitary sewer replacements, on its own or through bundled road reconstruction projects
  - b. Sanitary capital projects remain relatively consistent in the first half of the eight-year forecast and has a healthy reserve fund balance

### **Development Charges Reserve Funds**

Based on the current Development Charges By-Law Study assumptions, sufficient funds will be available to pay for growth related projects, however, changes to the state of good repair capital reserve funds contributions is required.

### **Repair and Replacement Reserve Funds and Rate Stabilization Reserve**

Due to significant watermain repair and replacement projects in recent years, the reserve fund balance is almost depleted. The forecast requires higher funding between 2026 and 2030 and would translate to significant rate increases to provide build up of the reserve fund balance. To mitigate steep increases in the water portion of the rate, the Financial Plan assumes annual capital funding contributions from the Sanitary Sewer will not be required during those years, and the Wastewater operations will contribute surpluses to the rate stabilization reserve. This will create an opportunity for water operations to be funded from the rate stabilization reserve and allow higher capital contributions to fund watermains without impacting the user rates.

Due to the relatively healthy nature of the Sanitary Sewer Repair and Replacement Reserve Fund balance and lower capital infrastructure needs, wastewater operations is able to supplement the Watermain Repair and Replacement Reserve Fund balance, while maintaining sustainability.

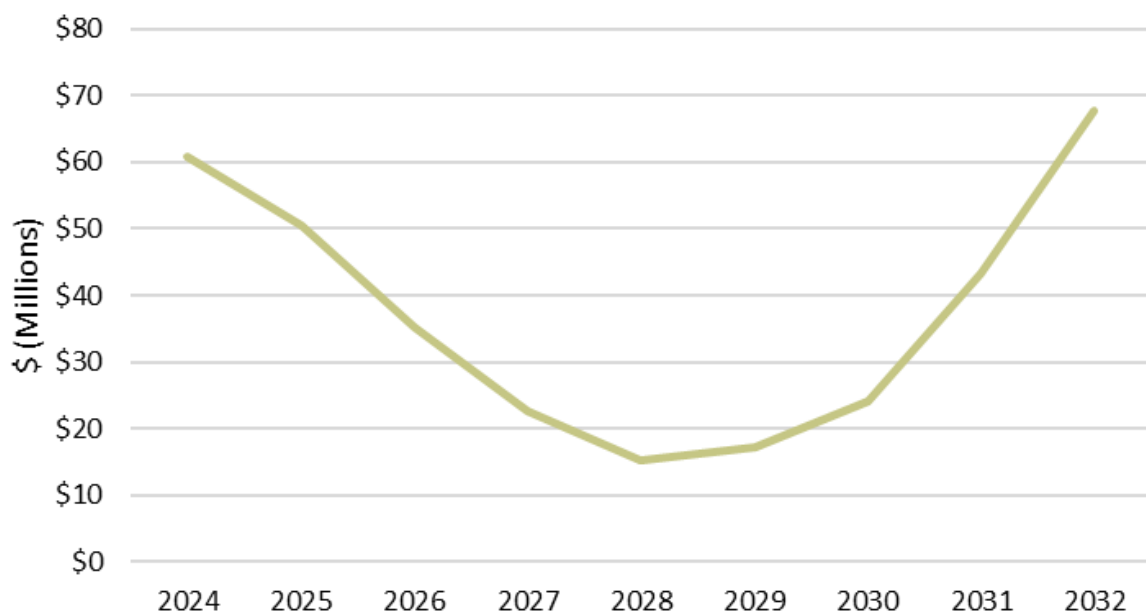
From 2025-2027, wastewater operations will show increased annual transfers to the stabilization reserve in the front end of the forecast, while water operations will be receiving annual contributions over the same timeframe, to help support the higher concentration of water infrastructure requirements via transfers to the Watermain Repair and Replacement Reserve Fund. Net transfers to reserve funds are increasing annually over the life of the operating forecast, with greater transfers to the Watermain Repair and Replacement Reserve Fund in the first half, followed by greater transfers to the Sanitary Sewer Repair and Replacement Reserve Fund in the second half. Overall, transfers to the various reserve and reserve funds represent the second largest expenditure in the Water and Wastewater Fund .

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Reserve fund contributions are evaluated as part of the annual budget process, and the Financial Plan anticipates greater transfers from wastewater operations to the Water and Sewer Rate Stabilization Reserve to support water infrastructure-related needs via the Watermain Repair and Replacement Reserve Fund.

Capital funding requirements will lead to a decrease of reserve and reserve funds over the forecast period, however, the balance will recover to 2024 levels by 2032 as shown in Table 3.

**Table 3: Consolidated Reserve and Reserve Fund Balance**

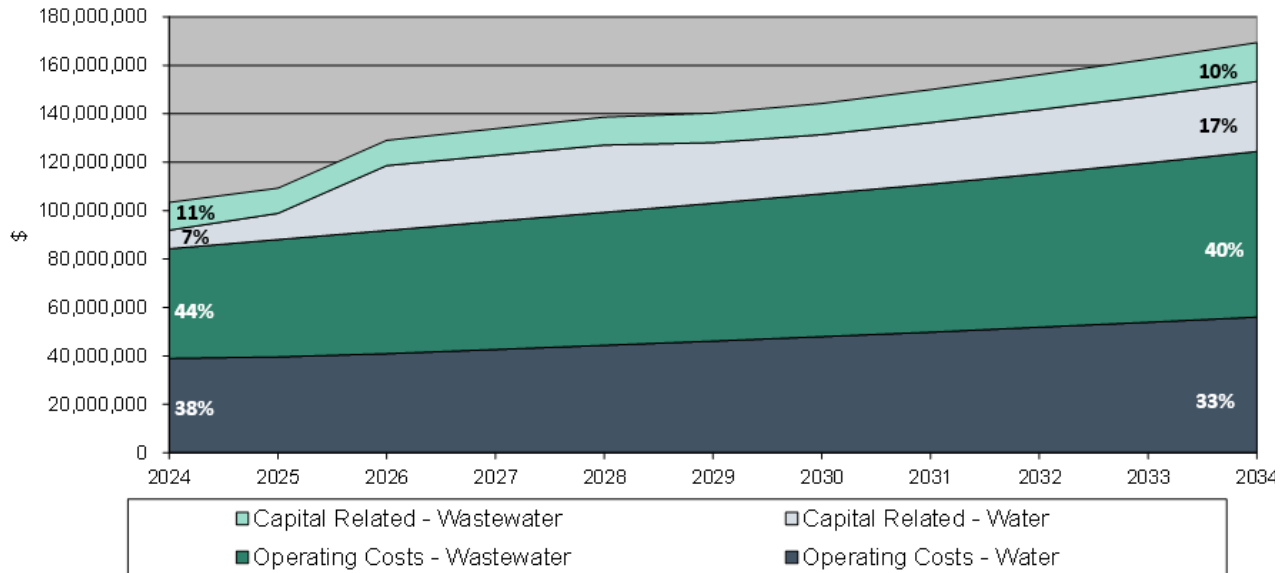


### D. Rate Forecast – Water & Wastewater

The final outcome of the Financial Plan is the rate projection. This is the culmination of all the operating and budgetary pressures, after making strategic adjustments to those inputs. It is important to note the relative proportions of the budgetary pressures that contribute to costs and as a result to the rate increase. This is shown in Table 4 on the following page.



**Table 4: Operating vs. Capital Related Costs**



From Table 4, operating costs increase at a consistent pace, while capital costs grow significantly from 2025 to 2029 before it becomes a gradual increase. These have an impact on the projected rates as shown in Table 5.

**Table 5: Projected Water and Wastewater User Rates**

Description	2024	2025	2026	2027	2028	2029	2030	2031	2032
Water Volume Rate - Weighted*	\$2.16	\$2.39	\$2.64	\$2.92	\$3.23	\$3.56	\$3.67	\$3.78	\$3.89
Annual Volume	170	170	170	170	170	170	170	170	170
<b>Total Annual Bill</b>	<b>\$368</b>	<b>\$406</b>	<b>\$449</b>	<b>\$496</b>	<b>\$548</b>	<b>\$606</b>	<b>\$624</b>	<b>\$643</b>	<b>\$662</b>
<b>Annual % Increase</b>		<b>10.5%</b>	<b>10.5%</b>	<b>10.5%</b>	<b>10.5%</b>	<b>10.5%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>
<b>Annual \$ Increase</b>		<b>\$38</b>	<b>\$43</b>	<b>\$47</b>	<b>\$52</b>	<b>\$58</b>	<b>\$18</b>	<b>\$19</b>	<b>\$19</b>
Constant Rate - Unweighted (January 1st to March 31st)**	\$2.10	\$2.18	\$2.46	\$2.72	\$3.00	\$3.32	\$3.67	\$3.70	\$3.81
Constant Rate - Unweighted (April 1st to December 31st)**	\$2.18	\$2.46	\$2.72	\$3.00	\$3.32	\$3.67	\$3.70	\$3.81	\$3.93

\*Weighted rate based on new rates implemented on April 1st of each year

\*\*Actual rate to be applied to volumes

Description	2024	2025	2026	2027	2028	2029	2030	2031	2032
Wastewater Volume Rate - Weighted*	\$3.05	\$3.14	\$3.24	\$3.34	\$3.44	\$3.54	\$3.65	\$3.75	\$3.87
Annual Volume	170	170	170	170	170	170	170	170	170
<b>Total Annual Bill</b>	<b>\$519</b>	<b>\$535</b>	<b>\$551</b>	<b>\$567</b>	<b>\$584</b>	<b>\$602</b>	<b>\$620</b>	<b>\$638</b>	<b>\$657</b>
<b>Annual % Increase</b>		<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>
<b>Annual \$ Increase</b>		<b>\$16</b>	<b>\$16</b>	<b>\$16</b>	<b>\$17</b>	<b>\$18</b>	<b>\$18</b>	<b>\$18</b>	<b>\$19</b>
Constant Rate - Unweighted (January 1st to March 31st)**	\$2.96	\$3.08	\$3.17	\$3.27	\$3.37	\$3.47	\$3.57	\$3.68	\$3.79
Constant Rate - Unweighted (April 1st to December 31st)**	\$3.08	\$3.17	\$3.27	\$3.37	\$3.47	\$3.57	\$3.68	\$3.79	\$3.90

\*Weighted rate based on new rates implemented on April 1st of each year

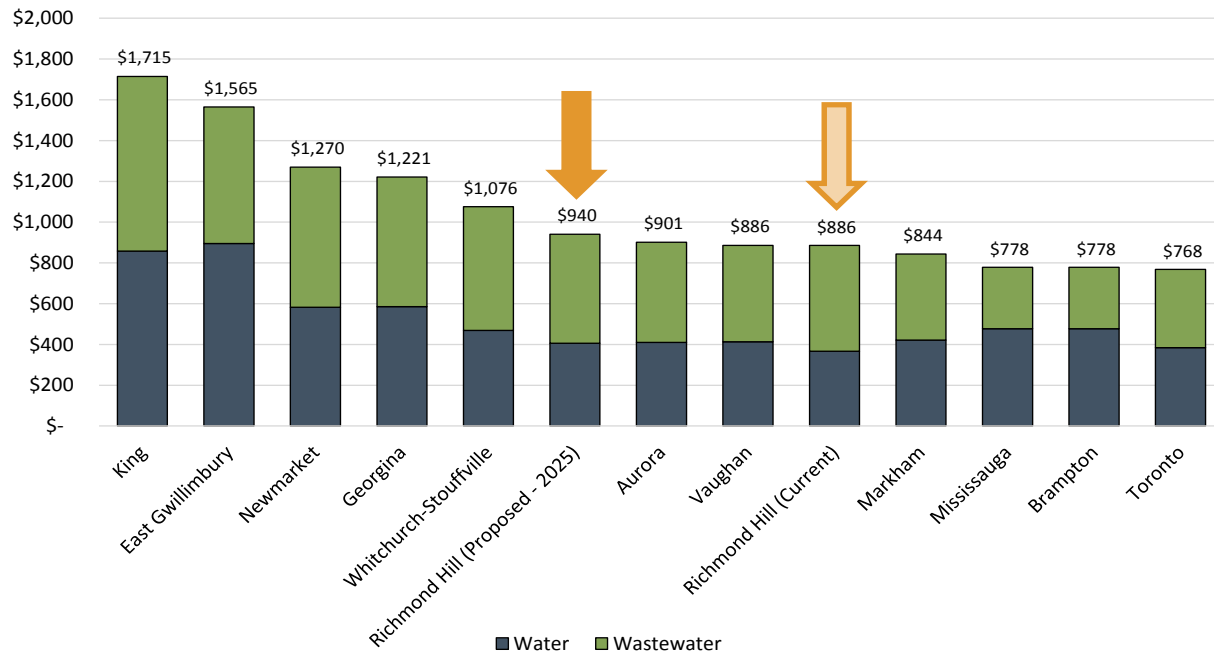
\*\*Actual rate to be applied to volumes

Average Annual Residential Bill	2024	2025	2026	2027	2028	2029	2030	2031	2032
Water Bill	\$368	\$406	\$449	\$496	\$548	\$606	\$624	\$643	\$662
Wastewater Bill	\$519	\$535	\$551	\$567	\$584	\$602	\$620	\$638	\$657
<b>Water &amp; Wastewater Total Bill</b>	<b>\$887</b>	<b>\$941</b>	<b>\$1,000</b>	<b>\$1,063</b>	<b>\$1,132</b>	<b>\$1,208</b>	<b>\$1,244</b>	<b>\$1,281</b>	<b>\$1,319</b>
<b>Annual % Change</b>		<b>6%</b>	<b>6%</b>	<b>6%</b>	<b>6%</b>	<b>7%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>
<b>Annual \$ Change</b>		<b>\$54</b>	<b>\$59</b>	<b>\$63</b>	<b>\$69</b>	<b>\$76</b>	<b>\$36</b>	<b>\$37</b>	<b>\$38</b>
<b>Monthly \$ Change</b>		<b>\$5</b>	<b>\$5</b>	<b>\$5</b>	<b>\$6</b>	<b>\$6</b>	<b>\$3</b>	<b>\$3</b>	<b>\$3</b>

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Although the actual rate increases will be deliberated during each budget cycle, should the 2025 rate increase be approved, the City of Richmond Hill will remain in the middle range amongst York Region municipalities (Table 6),

**Table 6: Water and Wastewater Rates – Based on Annual Usage of 170 m<sup>3</sup>**



### Relationship to Strategic Plan:

The Water and Wastewater Financial Plan relates to Pillar 3, Strengthening our Foundations, Priority 1, make decisions that are evidence-based and data-driven to enable the City's long term financial sustainability, as well as social, environmental and economic sustainability and Priority Action b) make capital investments within the context of financial sustainability and based on best practices in asset management planning.

### Climate Change Considerations:

Climate change considerations are not applicable to this staff report.

### Conclusion:

The City of Richmond Hill's 2025 to 2032 Water and Wastewater Financial Plan indicates financial sustainability by continuing to provide sufficient capital reserve funds for capital acquisitions and renewals without the use of debt, and projects user rates that factor in full cost recovery while maintaining a reasonable annual average increase per residential household.

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### **Attachments:**

The following attached documents may include scanned images of appendixes, maps and photographs. All attachments have been reviewed and made accessible. If you require an alternative format please call the contact person listed in this document.

- Appendix A – City of Richmond Hill Water and Wastewater Financial Plan
- Appendix B – City of Richmond Hill Water Financial Plan (Provincial Submission)

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### Report Approval Details

Document Title:	SRCFS.24.026 Water and Wastewater Financial Plan.docx
Attachments:	- SRCFS.24.026 - Appendix A - Water and Wastewater Financial Plan.pdf - SRCFS.24.026 - Appendix B - Water Financial Plan (Provincial Submission).pdf
Final Approval Date:	May 22, 2024

This report and all of its attachments were approved and signed as outlined below:

**Task assigned to Gigi Li was completed by delegate Lisa Chen**

**Lisa Chen on behalf of Gigi Li May 22, 2024 - 3:46 PM**

**Task assigned to Sherry Adams was completed by Gigi Li**

**Gigi Li on behalf of Sherry Adams - May 22, 2024 - 3:50 PM**

**Darlene Joslin - May 22, 2024 - 3:56 PM**