



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

**Date of Meeting:** November 15, 2023

**Report Number:** SRCFS.23.045

**Department:** Corporate and Financial Services

**Division:** Financial Services

**Subject:** **SRCFS.23.045 - Stormwater Rate Structure Review**

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### **Purpose:**

To report back to Council on a Stormwater Management Rate Structure Review brought forward and adopted from SRCFS.22.040 Regarding Stormwater Fairness, at the December 7, 2022, Council Meeting.

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

- a) That Staff report SRCFS.23.045 - Stormwater Rate Structure Review be received;
- b) That Council approve the proposed refinements to the Stormwater Management Rate Structure, as outlined in SRCFS.23.045;
- c) That Staff be directed to include in the 2024 Draft Stormwater Management Services Budget for Council's consideration, an increase in the Stormwater Management rates to generate additional revenues and provide much needed funding contribution to the reserve fund to ensure long term financial sustainability for Stormwater related infrastructure;
- d) That Staff be directed to undertake a Stormwater Management Financial Plan along with a Water and Wastewater Financial Plan and report back to Council by the 3<sup>rd</sup> quarter of 2024;
- e) That Staff be directed to include in the 2024 Draft Stormwater Management Services Budget, a reward program for residents acting as good ambassadors with respect to stormwater management; and
- f) That draft By-Law 99-23, Appendix A to staff report SRCFS.23.045, be enacted to adopt the 2024 Stormwater Management Rate Structure.

### **Contact Person:**

Gigi Li, Director, Financial Services and Treasurer, Ext. 6435

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### Report Approval:

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

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

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:

#### **Stormwater Management (SWM) Rate Structure and Funding in Richmond Hill**

Stormwater is managed as part of a large system throughout the entire City to reduce the risks of flooding, stream erosion, and to protect the water quality of the environment for the benefit of all property owners in Richmond Hill.

Stormwater is managed through the application of infrastructure and naturally designed systems to prevent excess runoff from rainfall, snowmelt as well as human activities that change runoff patterns from land use changes through development and intensification.

In 2013, the City was one of the first municipalities to adopt a dedicated SWM fee to fund current operating and infrastructure costs with a rate-based charge to ensure that fiscal resources would be available to manage this infrastructure over the long-term.

Prior to the dedicated SWM fee, operational SWM services were funded from the property tax rate, including minor contributions toward storm sewer replacement as part of the roads program. The implementation of the Fee in 2013 strived to balance rate equity and cost of administration.

A SWM Rate Structure review took place in 2019 due to the lower than necessary revenues generated by the dedicated fee introduced in 2013 and higher expenditures contributing to the impending depletion of the reserve fund. Staff explored a number of rate options to improve equity and fairness, from the two-tier flat rate model to considering various factors including property size, type and contribution to stormwater runoff, all while minimizing the administration burden and cost.

On February 12, 2020, Council approved a new rate structure that distributes the total revenue requirement to recover stormwater related costs by using the total area of the City (excluding exempt land parcels) and applying an average impervious area by property type to derive a stormwater rate per square foot.

The rate structure approved in 2020 was implemented effective April 2022. After implementation, Staff and the previous Council received inquiries about SWM fees regarding the new rate structure.

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In consideration of inquiries about the new rate structure and challenges identified by staff, Council at its meeting of December 7, 2022 directed staff to undertake a comprehensive SWM Funding and Rate Structure review. To assist with the review the services of Watson & Associates Economists Ltd and WSP engineering consultants were engaged. A comprehensive report prepared by the Consultant's is attached in Appendix B.

### **SWM Rate Structure and Fee History in Richmond Hill**

#### **Introduction of a Dedicated SWM Fee**

In 2013, property owners transitioned from paying for SWM services as part of their property taxes, to the dedicated SWM fee included in the water and wastewater bill or, for those properties not billed for municipal water, a SWM only bill.

The dedicated SWM fee approach was:

- More fair and equitable: based on the property type and how it is connected to the overall SWM system as opposed to the tax rate, which is based on the property's assessed value which does not have a link to stormwater runoff.
- Differentiated between property types: It differentiated residential and non-residential properties and their contribution to the SWM system. The two-tier rate categories were based on property types and use as identified by the Municipal Property Assessment Corporation (MPAC) in the annual assessment roll. Properties owned by the four publicly funded School Boards, York Region District School Board, and places of worship were exempt from the charge.
- Had lower administrative cost: A flat rate approach is quite inexpensive, as each year the number of properties would simply be adjusted for any development that takes place. However, this type of funding structure has a weaker link between the amount paid and the connection to and impact on the City's stormwater system, as it captures few property characteristics and simply treats every property in each tier the same regardless of the wide-ranging differences.

The SWM fee was developed and implemented in 2013, using assumptions and information known at the time with the goal of achieving a balance between financial sustainability and cost of administration. However, significant changes and new knowledge emerged after the adoption of the Fee that impacted the lifespan of the Water Quality Protection Reserve Fund.

The two-tier flat rate structure did not adequately account for urban runoff created by higher density and non-residential (e.g., commercial/industrial) developments: an equitable rate structure should reflect the appropriate allocation of the rate burden between property types considering contribution of runoff.

In addition, the intent of the City at the time the stormwater rate was implemented in 2013 was to gradually phase-in rate increases to build up funds in the City's Water Quality Protection Reserve Fund and provide long-term financial sustainability of the SWM system. The forecast required annual rate increases ranging from 10% to 52% to

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achieve sustainability within ten years, however the approved increases were much lower than the original phase-in strategy (range of 0% to 10% annual increases). New stormwater infrastructure was steadily assumed through the development process, adding financial pressure in the form of operating, maintenance, and lifecycle costs. Aging SWM infrastructure requires maintenance activities such as pond sediment removal, and a capital program to protect City infrastructure from erosion in valley lands.

### **Review of the Two-tier Dedicated Fee Structure**

The rate structure approved in 2020 considers property area and property type which are the primary parameters in the creation of stormwater runoff. The rate structure approved in 2020, distributes the total revenue requirement to recover SWM related costs, by using the total area of the City (excluding exempt land such as public roads, schools, hospital, and places of worship) and applying an average impervious percentage to reflect runoff by six property types to derive a SWM rate per square foot. Impervious percentages used by the City were based on a SWM engineering standard in Ontario and throughout Canada.

The impervious percentage applied reduces the total land effective area for calculation of SWM fees. As an example, to illustrate the City SWM rate formula, the 10% impervious factor for farm and vacant land estimates just 10% of rainfall and snowmelt runs off the property, the property absorbs 90%. The City formula, therefore, recognizes the runoff percentage by effectively reducing a fifty-acre farm down to five acres for SWM fee purposes. A 50% impervious factor for a one-acre residential property effectively reduces property size to a half-acre for SWM fee calculation. The individual property annual stormwater fee is then calculated by multiplying the rate per 1,000 square foot and the site area of the respective property.

All properties within a property type would pay the same rate, but this amount would be different from the rate paid by other property types. Properties within a property type pay a different fee because the rate for property type is applied to individual property land area. This approach recognizes that there are distinct physical differences between distinct types of development and land use and size. There is a linkage between costs and benefits and a more progressive approach based on benefits received.

Council approved the continuation of the flat rate structure and funding approach for 2020 and 2021 to minimize the impact to residents and property owners. The increase in revenue from the SWM fee took effect April 2022, as part of the new rate structure's implementation.

### **Implementation of New Fee Structure**

The implementation of a new SWM rate structure took effect April 1, 2022, based on property type, average impervious factor and property land area. The City communication plan included inserts with water bills issued October 2021 through March 2022 advising of new rates and, illustrating with examples, the formula to calculate the 2022 SWM charge.

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A member motion regarding Stormwater Fairness was brought forward and adopted at the September 14, 2022 meeting directing staff to report back to council on all aspects of SWM Fee and to address the inquiries below:

- Clarification on how SWM Rate is calculated
- Amount of SWM fee billed a significant increase for some properties with a large total land area
- “Water” bill received on properties without connection to City water
- SWM bills for properties with low impervious areas

A Special Council Education and Training Meeting was delivered to Members of Council on November 23, 2022 with the objective to provide essential background on the City’s SWM system, the history of the SWM fee and the current challenge with specific focus on agriculture land/farm, golf course and vacant land as they have been the subject of delegations and concerns known to Council and Staff.

A Council Meeting regarding Stormwater Fairness was held on December 7, 2022, and directed staff for the purpose of reporting back in 2023 the following:

- To undertake a SWM Funding and Rate Structure review
- To authorize a maximum land area (capping) of one acre on residential, and ten acres on farmland, vacant land, and golf course property effective April 1, 2022.
- That a credit/subsidy system for managing runoff on one’s property, once established and approved by Council as part of the 2023 SWM Funding and Rate Structure review be retroactive to April 1, 2022.

### **Stormwater practices in Ontario are legislated**

Stormwater practices in Ontario are legislated under the Ontario Water Resources Act as an Environmental Compliance Approval known as an “ECA”. The Province, has specific requirements and expectations of municipalities on how stormwater infrastructure is operated, maintained, and includes references to “adequate funding.” Other regulatory requirements governing SWM are included in Part 1.3 of the consultant’s report attached in Appendix B.

### **Scope of the Consultant SWM Review**

Watson and Associates Economists Ltd were retained as consultants to do a Stormwater Rate and Funding Study from March 2023. They, in association with WSP Inc. and staff, did a review of the existing rate structure and suggested improvements in the current structure to make it more equitable and sustainable.

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The following has been worked on as part of this process:

- Consideration of various rate structures identified in benchmarking based on current challenges, best practices, and administrative cost
- Review of current runoff (impervious) percentages applied to various property types along with recommended refinements
- Review of current maximum land area (capping or tiering) for rate calculation purposes
- Evaluation of exemptions, unique property types, and credits/rebates/subsidies
- Updates and reconciliation of property database based on new proposed rate structure and policy decisions on unique property types
- Calculation of rates based on updated rate structure

Greater detail related to the analysis conducted by Watson and WSP is provided in the Consultant's report sections 2, 3 and 4 in Appendix B.

### **Consultant Review of SWM Rate Structure**

Analysis by Watson and WSP has established that there is no consistent approach to stormwater rate structures implemented in Ontario municipalities. The criteria evaluated to select a rate structure includes ease of calculation, equity, and cost of administration. A rate structure based on measured imperviousness for each property in a property type or, within the entire municipality achieves an elevated level of equity. However, the administrative burden and cost of implementing and maintaining a database, for rate structure based on measuring imperviousness for individual land parcels is significant and complex.

Greater detail related to the analysis and rate structure alternatives conducted by Watson and WSP is provided in the Consultant's report section 2.3 in Appendix B.

The current rate structure based on average imperviousness among like property type functions well for most properties across the City. Variations in individual lots occur, but from a statistical viewpoint, this does not affect the overall average imperviousness within a property type. The current structure provides a suitable link between the rate charged and the contribution to stormwater runoff and is administratively manageable. It was recommended by the consultants that the City maintain its current rate structure, with a few key refinements.

### **Rate Structure Refinements, Imperviousness Percentage and Exemptions**

To address the current challenges of the rate structure advanced by certain property owners, and identified by the City during the review, several refinements to the existing rate structure, in addition to policy changes are recommended as supported by a detailed engineering review.

- **Split the existing residential category into single family homes, semi-detached, and townhouses** to better reflect the differences in contribution to stormwater runoff. Residential single-family homes continue to have SWM fees

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based on an impervious factor of 50%. Semi-detached and Link House property type see a slightly increased impervious factor of 55%. A review of SWM impact for residential townhouses results in a larger impervious value of approximately 70%.

- The current rate structure applies a maximum land area of one acre to residential property, whereas vacant land parcels have a maximum land area of ten acres for rate calculation purposes. This creates an inequity therefore, **the portion of large residential properties that are greater than one acre will be subject to an additional SWM fee for up to ten acres based on an impervious factor of 10% given the similarities to vacant land and the relative contribution to runoff.**
- **Previously exempt institutional (hospital and places of worship) properties should be charged based on an impervious factor of 70%;**
- **Reduce impervious factor for multi-residential properties from 95% to 85%** to reflect moderate landscaping relative to industrial/commercial properties;
- **Split golf courses into playing areas versus commercial areas such as the club house and parking lots based on G.I.S. measurements.** The split was previously based on proportion of property assessment; however, this does not accurately reflect relative contribution to stormwater runoff between the two types of areas.

### Current SWM Fee Policies Supported by Review

- **Maintain current industrial and commercial calculations.**
- **All properties, including vacant and agricultural land and rural residential properties contribute to city's stormwater runoff and should continue to be charged given that these properties contribute.**
- **Maximum land area of ten acres (Cap) for application for vacant, and agricultural land rate calculation.**

Greater detail related to the analysis conducted by Watson and WSP is provided in the Consultant's report section 3 in Appendix B.

### Review of Credits, Rebates, Subsidies and Inquiries

The City will formalize its current practice for responding to SWM bill inquiries by property owners on questions including:

- Incorrect property type assigned to land parcel
- Total land area measurement if not matching MPAC
- Effective from and to date of Stormwater fee

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No credit, rebate or subsidy program is proposed because of financial, resource and equity concerns. The detailed review of credit, rebate, or subsidy programs by Watson and WSP is provided in the Consultant's report section 4.3 in Appendix B.

A reward program will be proposed for residents acting as good ambassadors with respect to SWM. An allocation needed for the program will be set aside through the 2024 SWM Services Budget in December 2023.

### SWM Recommended New Rate Structure

The current rate structure based on the approved 2023 stormwater revenue budget is shown in the left of the table below. The recommended rate structure to raise the 2023 stormwater revenue requirement is on the right side of the table below. The table reflects a **redistribution of rates** arising from the rate structure refinements and policy changes proposed in this report, as well as a detailed reconciliation of property databases. The table does **not reflect a change in revenue requirements**.

Current Rate Structure		Recommended Rate Structure	
Property Type	Current Rate per 1,000 sq.ft.	Property Type	Recommended Rate per 1,000 sq.ft.
Residential (up to 1 acre)	\$9.54	Residential - Single Family Detached (up to 1 acre)	\$10.11
		Residential - Semi Detached/Link Home	\$11.12
		Residential - Row/Town Home	\$14.16
Residential (>1 acre)	\$9.54	Residential - 1 acre	\$10.11
	\$0	Residential - up to 10 acre cap (vacant land rate to be charged)	\$2.02
Commercial/Industrial	\$21.02	Commercial/Industrial	\$19.21
Institutional	Exempt	Institutional	\$14.16
Multi-Residential	\$21.02	Multi-Residential	\$17.19
Vacant Land (up to 10 acre cap)	\$3.20	Vacant Land (up to 10-acre cap)	\$2.02
Farmland (up to 10 acre cap)	\$3.20	Farmland (up to 10 acre cap)	\$2.02
Golf Course (up to 10 acre cap)	\$4.25	Golf Course - playing area and cart paths (up to 10 acre cap)	\$3.03
Golf Course - club house, parking, driveway, pro-shop	\$21.02	Golf Course - club house, parking, driveway, pro-shop	\$18.20



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The table below reflects the annual fee in the current and proposed rate structures based on sample areas by property type.

Property Type	Sample Area (In Acres)	Annual Fee (Current Structure)	Annual Fee (Recommended Structure)	Difference in New Bill
Residential ( Single Family Detached)	0.12	\$ 52	\$ 55	\$ 3
Residential ( Single Family Detached > 1 Acre )	Residential Capped at 1 Remaining charged at Vacant land = 4.9	\$ 416	\$ 869	\$ 453
Residential- Semi Detached/Link Home	0.07	\$ 35	\$ 40	\$ 6
Residential - Row/Town Home	0.05	\$ 21	\$ 31	\$ 10
Multi-residential	2.2	\$ 2,053	\$ 1,679	\$ (374)
Commercial	2.1	\$ 1,937	\$ 1,770	\$ (167)
Golf Course	10 acres (capped) of playing area, 4.9 (2.8 acres in previous) of club house, parking, etc.	\$ 4,448	\$ 5,238	\$ 790
Farm and vacant land	10	\$ 1,394	\$ 880	\$ (514)
Institutional	14.6	Exempt	\$ 9,030	\$ 9,030

The City has not implemented the rate increases that were necessary to achieve financial sustainability. Through the survey work undertaken as part of this study process, municipalities that have implemented a dedicated stormwater fee face similar financial challenges. Significant rate increases needed to ensure long term sustainability of SWM infrastructure. The need to generate additional SWM funding from user fees will be presented within the 2024 Draft SWM Operating Budget scheduled for the December 5, 2023 Budget Committee of the Whole meeting

### **Review of SWM Financial Plan along with Water and Wastewater Financial Plan will include options for Financial Sustainability**

Council directed staff in 2022 to report back on a SWM Funding and Rate Structure Review. The focus for 2023 is the Council's approval of a refined Stormwater Management Rate Structure. Funding and long-term financial sustainability for SWM Services will be part of phase 2 of the review in 2024. This approach leads to:

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- An opportunity to review SWM financial sustainability in conjunction with the upcoming Water and Wastewater Financial Plan due to the province in August 2024. Both operations share similar resources and are conducive to a parallel review
- Thorough review of financial and asset management strategies with the Capital Sustainability Steering Committee with respect to the magnitude of the forecasted SWM infrastructure funding gap
- Council decision regarding future SWM rate increases that will impact the operating budget outlook and capital forecast

### **Engagement and Feedback on Recommended SWM Rate Structure**

On October 16, 2023, a Special Council Education and Training Meeting was delivered to Members of Council with the objective to provide essential background on the City's SWM system, the history of the SWM rate structure and fee and, to discuss the findings of Watson and WSP to create more equitability in our SWM rate structure.

On October 25, 2023, a virtual Public Information Session was conducted to share details about the proposed updates to the SWM rate structure, policy change proposals and, to obtain feedback from the property owners. At this meeting, participants learned more about the comprehensive study that took place in 2023 including proposed the new rates and policies. Questions arising from the Public Information Session are included in Appendix B in the Consultant's report attached in Appendix B.

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

This report for the SWM Rate Structure does not have direct financial, staffing, or other implications. Its purpose is to refine the current rate structure to improve equity. Policy decisions including capping & exemption and structure recommendations redistribute the burden among individual properties and property types.

Funding for current and future SWM management needs will be considered within the 2024 Draft SWM Services Budget scheduled for December 2023 and the SWM Financial Plan scheduled for mid-2024.

### **Relationship to Council's Strategic Priorities 2020-2022:**

The discussion in this staff reports about the City's SWM infrastructure and the rate structure that provides funding for it directly supports two Council Strategic Priorities (2020-2022) as described below.

- Balancing Growth and Green: SWM infrastructure, including LID, is a required measure that facilitates new development in Richmond Hill while protecting or enhancing the natural environment that can allow for a balance between development and continued environment sustainability.

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- Fiscal Responsibility: The SWM Fee and rate structure relate to the financial sustainability of the City's SWM system, and sound management and design of this infrastructure translates to fiscal responsibility.

### **Climate Change Considerations:**

Climate change is expected to impact the City's SWM system in many ways in the future. This staff report provides background information on Richmond Hill's SWM infrastructure and some details between these expected impacts and the connections to the City's infrastructure. The comments on the connection of the Member Motion to climate change have also been discussed in this report. There are references to adaption of climate change related to these subjects in this document.

### **Conclusion:**

This staff report has been prepared in response to the member motion brought forward at the December 7, 2022, Council meeting regarding "Stormwater Fairness". The three-phase plan includes the refinements proposed to the SWM Rate Structure to make it more equitable, followed by requirement for additional funding from the SWM Rate to be proposed through the 2024 Draft SWM Services Budget and then finally work towards a SWM Financial Plan for ensuring adequate funding towards SWM infrastructure in a financially sustainable manner, well into the future.

### **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 – By-Law 99-23 - A By-Law to provide for a Stormwater Management Fee and to enact rules and regulations for its billing and collection
- Appendix B – Report on Stormwater Rate Structure Review from consultants Watson and Associates Economists Ltd. in association with WSP Inc.
- Appendix C – SRCFS.22.040 Response to Member Motion – Regarding Stormwater Fairness

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### Report Approval Details

Document Title:	SRCFS.23.045 - Stormwater Rate Structure Review.docx
Attachments:	- SRCFS.23.045 - Appendix A - By-law 99-23 2024 New rate structure for SWM.docx - SRCFS.23.045 - Appendix B - Report on Stormwater Rate Structure Review from consultants Watson and Associates Economists Ltd.pdf - SRCFS.23.045 - Appendix C – SRCFS.22.040 Response to Member Motion – Regarding Stormwater Fairness.pdf
Final Approval Date:	Nov 8, 2023

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

**Gigi Li - Nov 8, 2023 - 11:54 AM**

**Sherry Adams - Nov 8, 2023 - 11:55 AM**

**Darlene Joslin - Nov 8, 2023 - 2:40 PM**