Staff Report for Budget Committee of the Whole Meeting

Date of Meeting: January 28, 2020
Report Number: SRCFS.20.001

Department: Corporate and Financial Services
Division: Financial Services

Subject: SRCFS.20.001 - Stormwater Management Rate Structure

Purpose:

To propose a more equitable Stormwater Management Rate structure and move towards a sustainable funding approach for long-term financing of City-owned stormwater management infrastructure.

Recommendation(s):

a) That Council approve the implementation of the new Stormwater Management Rate structure by site area as described in staff report SRCFS.20.001 starting in 2022;

b) That staff continue to manage and prioritize the projects in the City's stormwater management capital program to ensure long-term sustainability of the Water Quality Protection Reserve Fund.

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Report Approval:

Submitted by: Mary-Anne Dempster, Commissioner of Corporate and Financial Services

Approved by: Neil Garbe, 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:

History of the Implementation of Richmond Hill's Stormwater Management Fee

Stormwater comes from rain and melting snow that flows into the storm sewers or stormwater management ponds in all areas of the City. Ponds hold back stormwater and release it slowly into natural streams and rivers. The City of Richmond Hill currently owns and operates 96 Storm Water Facilities, 542 kilometres of storm sewers, 17,228 catch basins, and manages more than 150 kilometres of streams and rivers. The initial construction of stormwater management infrastructure is funded through the land development process.

Staff provide ongoing maintenance and rehabilitation for City owned infrastructure, consistent with Provincial requirements. These assets reduce erosion and flooding to protect the community and other municipal infrastructure such as roads, sidewalks, and trails. Planning for repair and replacement of stormwater assets helps to avoid costly and inconvenient situations like washed-out roads and trails, stream erosion or flooding.

The City has recognized for a number of years that the current practice of funding stormwater infrastructure is not sustainable. In 2006, the City began to develop a priority rating system for its municipal stormwater management ponds. This process led to a ten-year capital program for stormwater management ponds that was adopted by Council in 2008 utilizing the "Water Quality Protection Reserve Fund" which was established by Council through the proceeds of the sale of Richmond Hill Hydro.

In 2011, the services of Watson & Associates Economists Ltd. were retained to lead a review that considered the existing funding model, current and anticipated legislative requirements and future financial implications. This review resulted in the Stormwater Management Financing Feasibility Study (SRCFS.13.007) and the subsequent implementation of a two-tier flat rate structure in 2013.

Richmond Hill was one of the first municipalities to adopt a dedicated Stormwater Management (SWM) Fee to fund current operating and infrastructure costs with a rate-based charge. The benefits of shifting to the recommended rate based approach included:

- **Dedicated funding source for all contributors to the stormwater management systems:** recovering both operating and capital infrastructure costs allowing for sustainability, flexibility and adaptability to respond to related issues and legislative requirements.

- **More fair and equitable rate:** based on the property's use of the stormwater management system as opposed to the tax rate, which is based on the property,'s assessed value.
- **Phased-In approach for lifecycle reserve contribution:** Systematic increases in the funds transferred from the operating budget gradually building up the Water Quality Protection Reserve Fund over time.
- **Two-tier flat rate structure:** differentiates residential and non-residential properties and their contribution to the stormwater management systems.

Significant Changes Since 2013

The Stormwater Management Fee was developed and implemented in 2013, using assumptions known at the time with the goal to achieve a balance between equity and administration. However, significant changes have emerged since the adoption of the Fee that are impacting the lifespan of the Water Quality Protection Reserve Fund and the long-term financial sustainability of stormwater management services and infrastructure.

- The implementation of the Fee in 2013 strived to balance rate equity and cost of administration. However, it has become evident that the current two-tier flat rate structure does not adequately account for urban runoff created by higher density and non-residential (e.g. commercial) developments. Impervious surfaces such as roads, parking lots, rooftops and sidewalks are constructed during land development, and these surfaces reduce the amount of runoff that soaks into the soil resulting in more runoff to control. An equitable rate structure should reflect the appropriate allocation of the rate burden between residential and non-residential rate payers considering this stormwater characteristic.

- The Stormwater Management Financing Feasibility Study from 2013 recommended significant annual increases (averaging 17% annually) to the Fee to achieve sustainability within ten years. In actuality, Council adopted lower increases in 2014 to 2019 as compared to the recommendations (2019 residential rate: actual rate of $73.95 compared to $157.63, 2019 non-residential rate: actual rate of $214.83 compared to $508.22), resulting in lower contributions to the reserve fund.

- The Fee is charged based on a flat rate structure by each metered water service using the water bill. Properties not connected to the water supply are issued an annual stormwater bill. Over the last six years, development shifted to higher density (large number of residential condominiums) resulting in more impervious

areas. Multi-residential buildings are billed on bulk metering (one bill), much like single family homes. This has resulted in lower revenue per household in multi-residential buildings, despite significant stormwater contribution.

- The 2013 Fee reflected stormwater management costs compiled from 2011/2012. Since that time, new stormwater infrastructure has been steadily assumed through the development process adding financial pressure in the form of operating, maintenance, and lifecycle costs. Further, as the infrastructure ages, the City has implemented maintenance routines such as pond sediment removal, and a capital program to protect City infrastructure (bridge piers, sanitary manholes, etc.) from erosion in valleylands. The current stormwater program provides a more all-inclusive understanding of the overall stormwater management costs.

The factors identified above contribute to the impending depletion of the Water Quality Protection Reserve Fund as a result of lower than necessary revenues and higher expenditures. Deriving a more equitable rate structure and developing a funding mechanism to sustainably recover costs related to the long-term management of City-owned stormwater management infrastructure is an important priority for the City's long-term capital sustainability.

More Equitable Rate Structure

Staff explored a number of rate options to improve equity and fairness, from the current 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. During this review, staff also considered the experiences in other municipalities (Markham, Vaughan, Newmarket, Mississauga and Waterloo) with dedicated stormwater billing.

The new rate structure recommended by staff distributes the total revenue requirement to recover stormwater related costs by using the total area of the City (excluding exempt land such as schools and places of worships) and applying the impervious area by property type to derive a stormwater rate per square foot. The individual property annual stormwater charge is then calculated by the rate per square foot and the site area of the respective property.

In 2020, the estimated revenue to be collected from the SWM Fee is $4.4 million. Under the current rate structure, all residential properties will receive an annual flat fee of $79.50 while non-residential properties will receive an annual flat fee of $230.94.

Considering the proposed new rate structure, an individual property owner will receive a fee that is calculated based on the site area of the property. The table below shows the rate distribution and resulting rate per 1,000 sq. ft. For illustration, a residential property with a total property size of 5,000 sq. ft. will now be charged a fee of $33.45 (rate of $6.69 per 1,000 sq.ft. x 5) as compared to $79.50. A commercial property with a total property size of 100,000 sq. ft. will now be charged a fee of $1,270 (rate of $12.70 per 1,000 sq.ft. x 100) compared to $230.94.

SWM Model Using Site Areas		**Revenue Collection**	**$4,400,000**	
Property Type	City Adjusted Impervious Area (Sq.Ft.)	Rate Distribution	Revenue Burden in Dollars	Rate per 1,000 Sq. ft.
Residential	193,931,443	58.94%	$ 2,593,435	$ 6.69
Commercial/Industrial	100,863,276	30.66%	$ 1,348,839	$ 12.70
Multi-Residential	11,993,556	3.65%	$ 160,389	$ 12.70
Agriculture Land/Farm	7,729,709	2.35%	$ 103,369	$ 1.34
Golf Courses	4,346,314	1.32%	$ 58,123	$ 2.01
Vacant Land	10,158,169	3.09%	$ 135,845	$ 1.34
	329,022,467	100%	$ 4,400,000	

The total revenue generated remains unchanged from the current rate structure, however the new rate structure improves the residential/non-residential split by shifting the appropriate stormwater cost burden to non-residential properties based on impervious areas. The new rate structure takes into account the impervious areas of each property type then considers site areas for the charge, hence the rate for each property is based on specific property size. The fee charged to each property is differentiated by the size of the property and property type.

Some changes to the City's current billing system would be needed to implement the proposed SWM rate structure. This will require staff and vendor resources to develop and implement this rate structure utilizing functionalities of the existing tax and water billing systems.

The implementation of the new rate structure is proposed to be completed and ready for 2022 billings, allowing the time that will be needed for staff and the vendor to develop, test and implement the new rate structure in the billing system. This also ensures adequate notice, communication and opportunity for feedback from residents and property owners about the change.

Stormwater Management Services Costs

Since the implementation of the Stormwater Management Rate in 2013, several assumptions have changed, which led to a stormwater rate review that began in 2017. An Activity Based Costing (ABC) exercise was undertaken to examine all known expenditures contributing to the delivery of stormwater related services. The review identified a significant shortfall in funding for both operating and capital activities as a result of the impact of full cost recovery. i.e., the alignment of resource efforts to stormwater activities, contribution to asset lifecycle replacements and new capital projects.

Richmond Hill currently recovers approximately $4.4 million from the Stormwater Management Fee per year, largely to offset the operating costs but also to contribute toward future stormwater infrastructure replacement. In 2019, the full costs related to the long-term management of City-owned stormwater infrastructure were further refined to establish the total revenue requirement.

Based on the recent Operating Forecast, operating and lifecycle expenditures (full requirement) for 2019 to 2029 a total $196.6 million is required, 75% ($147.2 million) relates to the contributions to fund for future repair and replacement of stormwater infrastructure, as shown in Appendix “A”. This equates to average annual operating expenditures and lifecycle contributions of $17.9 million, substantially higher than the recovery from the current SWM Fee of $4.4 million.

In order to strive towards a fully sustainable stormwater management funding model, it is critical to increase the revenue generated from the SWM Fee to support the necessary expenditures and fund for the future. The table below highlights the gap between the full requirements and the anticipated revenue from the SWM Fee for the next three years from 2020 to 2022.

	2020	2021	2022
Total Operating Expenditures	$6.4M	$7.4M	$8.9M
Estimated Revenue from SWM Fee	$4.4M	$4.6M	$4.7M
Shortfall	($2.0M)	($2.8M)	($4.2M)

The estimated revenue from the Stormwater Management Fee is predicated on the same assumption as the water and wastewater rate increases (7.5% in 2020 and 2.7% in 2021 and onwards) per current practice, however, this is not sufficient given the funding that is required to provide for stormwater related infrastructure.

The average annual lifecycle contribution to the reserve fund is approximately $2.9 million based on the current rate structure and annual increases, while full provision is an estimated annual average of $13.4 million during the 2019 to 2029 period. Appendix “C” provides a summary of the lifecycle replacement costs. While it is necessary to gradually

increase the revenues to extend the life of the reserve fund, it is unrealistic to implement large fee increases to meet full provision targets. As an interim measure, staff propose to increase the lifecycle contribution more slowly to a level that will extend the life of the reserve fund from 2021 to 2029. See Appendix "A".

The table below shows the revised shortfall for 2020 to 2022 with this proposal.

	2020	2021	2022
Total Operating Expenditures	$5.9M	$6.3M	$6.9M
Estimated Revenue from SWM Fee	$4.4M	$4.6M	$4.7M
Shortfall	($1.5M)	($1.7M)	($2.2M)

The Water Quality Protection Reserve Fund is earmarked to fund stormwater related capital projects. The 2019 to 2029 capital forecast totals $47.9 million as shown in Appendix "B". Contribution from the SWM Fee to the reserve fund is not sufficient to provide funding for the forecasted capital projects and the reserve fund is expected to be fully depleted by 2021 until the new rate structure is in place.

In light of the impact to the reserve fund, the capital program will be managed and projects will be prioritized to the funding that is available in order to maintain a positive balance and extend the life of the Water Quality Protection Reserve Fund beyond 2021.

Financial/Staffing/Other Implications:

Since the forecast from 2019 to 2029 shows a significant funding deficiency starting in 2021, a financial plan is required to support future stormwater infrastructure needs. The strategy for effectively managing the funding of these assets includes an increase in contribution, coupled with an ongoing review of the annual capital plan by prioritizing projects. An alternate funding approach is recommended to increase the revenue more systematically and equitably, to provide long-term sustainability for stormwater related infrastructure.

In order to minimize the impact to residents and property owners during this transition, staff recommend continuation of the current rate structure and funding approach for the next two years in 2020 and 2021. An increase in contribution to reduce the funding gap will take place effective 2022 as part of the implementation of the new rate structure.

In 2022, the proposed rate will provide funding for the stormwater operating costs and an increase to lifecycle contribution to protect and maintain the balance in the reserve fund. The goal to increase the provision for lifecycle costs at a level that will extend the life of the reserve fund to 2029 requires $6.9 million in revenue from the SWM fee in 2022. This also requires Council's commitment to gradually increase the lifecycle contribution annually per Appendix "A".

The table below shows the estimated Stormwater Management Fee for 2020 to 2022 for selected average property types in the City. The 2020 and 2021 fees are estimated following the current practice of matching the water and wastewater increases, while the estimated 2022 fee is calculated based on the new rate structure and the additional contribution to lifecycle. The estimated fee for an average size single detached residential property is shown as reference.

	2020	2021	2022
Estimated Revenue / Fee	$4.4M	$4.6M	$6.9M
Single Detached Residential	$79.50	$81.65	$81.65
Residential Condo Unit	$1.54	$1.58	$11.72
Regional Shopping Mall	$230.94	$237.29	$38,849

In 2022, residential property owners will receive a Stormwater Management Fee that is based on the specific property size. If the property size is below the average single detached residential property, the fee will be less than $81.65, if the property size is above the average single detached residential property, the fee will be greater than $81.65. However, as a whole, the residential properties will be paying less as the new rate structure improves the residential/non-residential split by shifting the appropriate stormwater cost burden to non-residential properties. More notably, the fee is specific based on property size hence a Regional Shopping Mall with a large footprint would be paying its fair share of the charge. The redistribution of costs maintains the residential rate with no increase in 2022, while achieving a higher contribution to lifecycle.

The collection of the proposed Stormwater Management Fee will be in the same manner as the current practice. The new rate structure for the Stormwater Management Fee will be new to residents and will require extensive communication and education. A communication strategy will be developed and will include media releases, brochures, notices on the City's website and other forms of delivery to enhance the communication of the change to the residents.

The new rate structure and funding approach will provide a more equitable way for the City to move towards long-term financial sustainability. Once fully implemented, staff will report back to Council on the status and explore opportunities to further improve the program in the future.

Relationship to the Strategic Plan:

The funding of current stormwater management operating and future capital and lifecycle costs with an improved rate structure based on site area meets the Strategic Plan goal of Wise Management of Resources in Richmond Hill. This more equitable rate structure coupled with a new funding approach will allow for the long-term sustainability of stormwater management services.

Conclusion:

The proposal of a new Stormwater Management Rate structure addresses the significant funding gap recognized by staff and previously presented to Council. It provides the most equitable opportunity to move towards long-term financial sustainability for stormwater infrastructure.

Attachments:

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

- Appendix A: Operating Forecast Summary for Stormwater Management Services
- Appendix B: Capital Forecast Summary for Stormwater Management Services
- Appendix C: Lifecycle Replacement Summary for Stormwater Management Services

Report Approval Details

Document Title:	SRCFS.20.001 Stormwater Management Rate Update.docx
Attachments:	- SRCFS.20.001 Appendix A.pdf - SRCFS.20.001 Appendix B.pdf - SRCFS.20.001 Appendix C - final.pdf
Final Approval Date:	Jan 23, 2020

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

David Dexter - Jan 23, 2020 - 2:36 PM

MaryAnne Dempster - Jan 23, 2020 - 2:50 PM

Neil Garbe - Jan 23, 2020 - 2:56 PM