

Sustainability Stormwater Funding Study

Presented To:	Finance and Administration Committee
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Type:	Presentations
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Recommended by:	General Manager of Growth and Infrastructure

Report Summary

This presentation and report provides a recommendation regarding sustainability stormwater funding study.

Resolution

THAT the City of Greater Sudbury approves, in principle, a plan for applying a stormwater rate beginning no sooner than 2024 based on a sustainable, equitable, and reliable source of dedicated stormwater funding as outlined in the report entitled “Sustainability Stormwater Funding Study”, from the General Manager of Growth and Infrastructure presented at the Finance and Administration Committee meeting on October 19, 2021;

AND THAT staff be directed to begin public engagement and stakeholder consultation on a potential stormwater rate plan;

AND THAT staff prepare a report regarding the public and stakeholder consultation with an implementation plan for consideration by Council in the first quarter of 2023.

Relationship to the Strategic Plan, Health Impact Assessment and Community Energy & Emissions Plan (CEEP)

The Sustainable Stormwater Funding Study directly supports all Sections of Asset Management and Service Excellence of the City of Greater Sudbury Strategic Plan.

Effective management of the stormwater system protects the local environment from urban runoff. Without effective stormwater management, it may become increasingly challenging to maintain high-quality pedestrian and cycling infrastructure, which is critical to achieving Goal 8 of CEEP, which is to have a 35% active mobility mode share by 2050. Effective stormwater management also ensures infrastructure assets can obtain their design lifespans, reducing carbon intensive replacement and renewal.

In addition, effective stormwater management and stormwater systems can help address portions of sanitary sewer Inflow and Infiltration. To accomplish this sustainable, equitable and reliable funding is necessary.

Financial Implications

There are no direct financial implications from this report. This report recommends a sustainable, equitable and reliable source stormwater funding model to introduce to the public and stakeholders for input. The resulting input will inform an implementation plan that would be introduced to Council with financial implications.

Background

The City is committed to providing quality stormwater services to our community by improving water quality and reducing the risk of flooding while addressing the challenges of climate change, available budgets and resources. The City's diverse and large portfolio of stormwater assets provides the service within this category of infrastructure and it is estimated that the replacement value of these assets is approximately \$520M. Through work to improve stormwater conveyance and improve the management of stormwater effects on flooding and the environment, new assets are added to this system annually through the capital program and development.

The City has completed a Stormwater Asset Management Plan (SAMP) which has identified funding gaps in the stormwater programs. The SAMP identifies proposed levels of service for our community. To meet the proposed levels of service a Capital Improvement Plan and Operations and Maintenance Plan were developed.

The Capital Improvement Plan recommends investments of approximately \$4 million/year. The City currently invests approximately \$2.5 million/year into stormwater assets, mainly through the large culvert replacement program and stormsewer replacement on road reconstruction projects.

The Operations and Maintenance Plan was developed to meet the Target Levels of Service. This plan would provide the investment of approximately \$8.85 million/year into maintenance activities such as street sweeping, catch basin cleaning, inspections, sampling and reporting. The City currently spends approximately \$6.8 million/year on these activities.

In addition to the proposed financial requirements of the Stormwater Asset Management Plan the various Subwatershed Studies and Stormwater Master Plans recommend several major improvement projects to improve flood resiliency, improve the quality of water reaching the environment or both. They also recommend further studies and communication and potential subsidy programs for private side improvements. These projects can come with significant costs to construct and some recent grants have been secured to assist with them (Disaster Mitigation and Adaptation Fund). The recommended projects from these Studies are in excess of \$100M but are only to be constructed as funding and opportunities exist, none of them are mandatory.

These projects are primarily intended to improve existing conditions with City infrastructure not future development. Future development is intended to manage their stormwater impacts within their development through the best guidance of the applicable Subwatershed Study. However, opportunities to best serve stormwater management needs through partnership with the development community are encouraged. The City has been investing in stormwater system improvements for a number of years to address flooding issues and improve the quality of stormwater reaching the environment. This has historically been approximately \$5 million/year and is proposed to increase to \$6.5 million/year.

Additionally, the funding the City provides to Conservation Sudbury to deliver operations and management of

their stormwater assets that benefit the community and projected increase have been considered in the overall stormwater funding gap.

The City currently budgets \$14.7 million/year toward stormwater asset management, and stormwater system improvements. Following benchmarked best practices from across Canada and recommendations of the Subwatershed Studies and Stormwater Master Plans an annual investment of \$19.9 million is recommended. The current and proposed programs are summarized in Table 1.

Table 1: City of Greater Sudbury Funding Levels of Service

Level of Service	O&M	Asset Renewal	System Improvements	Conservation Sudbury	Total
Current Program	\$6.8M	\$2.5M	\$5M	\$355K	\$14.7M
Proposed Program	\$8.85M	\$4M	\$6.5M	\$509K	\$19.9M

Sustainable Stormwater Funding Study:

Like many municipalities across Canada, the City has a desire to review its current stormwater funding model, which is mainly supported by the general tax levy (property tax). To investigate funding options that provide a sustainable, equitable and reliable source of funding for stormwater management, the Sustainable Stormwater Funding Study was initiated. The study reviewed the current funding model, proposed funding needs, funding models from across Canada and provides recommended funding models for further consideration. Typical sources for funding stormwater management in communities in Canada and their effectiveness at meeting important funding criteria are summarized in Table 2.

Table 2: Comparison of Stormwater Funding Options

Funding Method	City Wide Applicability	Meets All Revenue Needs	Equitable	Dedicated Funding Source	Effort to Set-up	Public Accountability	Environmental Benefits	Social Benefits
General Tax Fund (Property Tax)	Yes	No	Low	No	Low	Low	Low	Low
Dedicated Tax Levy	Yes	Medium	Low	Yes	Low	Medium	Low	Medium
Development Charges	No	No	Medium	Yes	Medium	Medium	Low	Medium
Water Rate Surcharge	Partly	No	Low	Partly	Low	Medium	Medium	Medium
Stormwater Rate - flat fee	Yes	Yes	Low	Yes	Medium	Medium	Medium	Low
Stormwater Rate - variable based on land use and/or property size	Yes	Yes	Medium	Yes	Medium	Medium	Medium	Medium
Stormwater Rate based on imperviousness - ERU	Yes	Yes	High	Yes	Medium	High	High	High
Stormwater Rate based on imperviousness - tiered SFU	Yes	Yes	Higher	Yes	High	High	High	High

Green – Funding model delivers characteristic well, Yellow Funding model delivers characteristic satisfactory, Red - Funding model delivers characteristic poorly or not at all

A sustainable, equitable and reliable funding model would have the following characteristics:

- Consistent with provincial and federal legislation;
- Applicable for use on a City-wide basis and across all land use types;

- Provides a sustainable, stable and dedicated funding source to support stormwater management program needs;
- Revenue meets the requirements for the City’s desired level of service provided;
- Costs and benefits are equitably distributed across the community;
- Appropriate reserve funding levels are maintained;
- Sound policies are in place for credits, adjustments and appeals, and rate study recommendations are publicly supported; and,
- Reasonable implementation costs (e.g., billing systems and administration).

Based on these characteristics and unique conditions in Greater Sudbury the models that were chosen to study in depth were:

1. Dedicated tax levy: based on assessed value (part of the property tax bill) but revenues are dedicated to stormwater. Tax exempt properties do not contribute, and no credits are given to properties that decrease their impact on the City’s stormwater system.
2. Tiered flat fee: all properties contribute based on their land use. The fee is based on a roughly approximated average (not measured) impact, and a credit system may be possible.
3. Equivalent Residential Unit (ERU) variable rate: all detached residential properties contribute the same amount, which is based on the City’s averaged residential impervious area. Non-residential properties are charged based on their individually measured impervious area. A credit system for properties that reduce their impact on the system is possible.

The advantages and disadvantages of these funding models for consideration in the City are summarized in Table 3.

Table 3: Advantages and Disadvantages of the Funding Models

	Advantages	Disadvantages
<i>Dedicated Tax Levy</i>	<ul style="list-style-type: none"> ▪ simple ▪ could likely be administered by existing staff on an on-going basis ▪ can fund all existing and future activities within the City’s stormwater program ▪ use existing billing system ▪ dedicated stormwater funding source 	<ul style="list-style-type: none"> ▪ inequitable: no correlation with a property’s impact on the stormwater system ▪ associated with the general tax levy, so will be subject to tax sensitive scrutiny ▪ a credit system cannot be applied to properties that install on-site stormwater measures ▪ tax exempt properties will not contribute
<i>Land Use Based Rate</i>	<ul style="list-style-type: none"> ▪ relatively simple ▪ could likely be administered by existing staff on an on-going basis but will require billing resources ▪ can fund all existing and future activities within the City’s stormwater program ▪ outside the general tax levy, so will not burden City revenues from property tax ▪ a credit system can be applied to properties that install on-site stormwater measures ▪ all properties (including tax exempt properties) will contribute ▪ sustainable and dedicated stormwater funding source 	<ul style="list-style-type: none"> ▪ will require some effort to set-up, particularly with respect to the billing of properties that do not currently receive a utility bill (e.g. well and septic system). ▪ inequitable: minor correlation with a property’s impact on the stormwater system ▪ no incentive for non-residential properties to reduce the imperviousness of their properties ▪ potential resentment towards a new “fee”
<i>Imperviousness Based Variable</i>	<ul style="list-style-type: none"> ▪ relatively simple ▪ could likely be administered by existing staff 	<ul style="list-style-type: none"> ▪ will require some effort to set-up, particularly with respect to

Rate (ERU)	<p>on an on-going basis but will require billing resources</p> <ul style="list-style-type: none"> ▪ can fund all existing and future activities within the City's stormwater program ▪ outside the general tax levy, so will not burden City revenues from property tax ▪ a credit system can be applied to properties that install on-site stormwater measures ▪ all properties (including tax exempt properties) will contribute ▪ sustainable and dedicated stormwater funding source ▪ equitable: the fee is proportional to the amount of stormwater runoff generated on-site ▪ provides incentive for non-residential properties to reduce the imperviousness of their properties 	<p>the billing of properties that do not currently receive a utility bill (e.g. well and septic system) and the impervious area measurement of non-residential properties</p> <ul style="list-style-type: none"> ▪ If a credit or rebate program is implemented resources will be required to administer ▪ potential resentment towards a new "fee"
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Through further analysis of the City's existing stormwater funding, it was determined that residential properties are responsible for approximately half the impervious area in the City. Currently residential properties contribute approximately 70% of the tax levy and therefore contribute approximately 70% of the current stormwater funding. The ERU funding model strengthens the alignment between stormwater funding and the property owners that drive the costs.

A break down of the average annual costs for properties in the City for the three funding models that were analyzed are summarized in the following tables. It is important to note that for Commercial, Industrial and Tax-Exempt properties there could be a wide range of costs depending on the assessed value for the Dedicated Tax Levy model or the size and imperviousness for the Rate - Imperviousness (ERU) model. When stormwater funding is based on the amount of stormwater generated on the property in a fully funded stormwater management program the average detached home would pay less than they currently do.

Table 4: Current Funding (\$14.7M)

Property Type	Dedicated Tax Levy	Rate – Land Use	Rate – ERU
Detached Home	\$185 (avg)	\$212	\$113
Commercial	\$1,024 (avg)	\$1,158	\$1,433 (avg)
Industrial	\$1,024 (avg)	\$1,283	\$1,433 (avg)
Tax Exempt	\$0	\$2,094	\$1,433 (avg)

Table 5: Fully Funded (\$19.9M)

Property Type	Dedicated Tax Levy	Rate – Land Use	Rate – ERU
Detached Home	\$251 (avg)	\$288	\$154
Commercial	\$1,386 (avg)	\$1,576	\$1,951 (avg)
Industrial	\$1,386 (avg)	\$1,747	\$1,951 (avg)
Tax Exempt	\$0	\$2,851	\$1,951 (avg)

Credit programs can also help increase the fairness of a stormwater funding model by reducing the fee for properties that implement and maintain on-site stormwater measures. Many examples of credit programs exist in Canada. Similarly, many municipalities do not offer them do to administration efforts. Commonly a credit is available to Commercial, Industrial and Tax-Exempt properties that have stormwater management systems in place and can demonstrate functionality. For residential properties it is more common to offer incentives for items such as rain barrels or rain gardens, which follows recommendations of the Subwatershed Studies.

Recommendations

Given the City of Greater Sudbury's unique nature that includes a large geographic area, diverse resource-based properties, and large range of property sizes and uses; it is recommended that a stormwater rate based on imperviousness using the equivalent residential unit (ERU) model would provide the right balance between equity and simplicity for the City.

As such the Staff recommends that Council support, in principle, this sustainable, equitable and reliable stormwater funding model for the City. Further Staff recommend that Council support beginning public engagement and stakeholder consultation on a stormwater rate based on the ERU model. The focus of the public and stakeholder input will be on credit programs, rebates, incentives and implementation. Results of the engagement and consultation will be incorporated into an Implementation Plan that would be brought back to Council for approval before the City would initiate the stormwater rate based on the ERU model.

Next Steps

Pending Council approval staff would initiate planning for the public engagement and stakeholder consultation that is planned to begin in winter 2022, finalize the preferred funding model and prepare an Implementation Plan for Council approval in winter of 2023.

Resources Cited