
TO: GENERAL COMMITTEE

SUBJECT: RECOMMENDATION TO IMPLEMENT A STORMWATER CLIMATE ACTION FUND

WARD: ALL

PREPARED BY AND KEY CONTACT: B. GRATRIX, P. ENG
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SUBMITTED BY: B. ARANIYASUNDARAN, P. ENG., PMP
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GENERAL MANAGER APPROVAL: A. MILLER, RPP
GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

CHIEF ADMINISTRATIVE OFFICER APPROVAL: M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That the creation of a Stormwater Climate Action Fund to pay for the City's operating and capital stormwater infrastructure needs, be endorsed.
2. That subject to the approval of the Director of Finance/Treasurer and Director of Engineering, staff retain AECOM Canada Ltd., to support implementation of the Stormwater Climate Action Fund via sole source procurement.
3. That a capital project for the Stormwater Climate Action Fund be created with a total three year budget of \$1,400,000 beginning in 2020 and be funded from the Tax Capital Reserve and that this amount be repaid from revenue generated by the Stormwater Climate Action Fund, once implemented.
4. That the following temporary resources be approved and funded from the Stormwater Climate Action Fund beginning in January 2020 and ending in January 2023 (three year duration):
 - a) One 0.5 full-time equivalent temporary position for a project manager with an estimated total cost of \$240,000;
 - b) Three 0.5 full-time equivalent temporary positions for technical leads in Engineering, Communications and Finance with an estimated total cost of \$590,000; and
 - c) \$575,000 for consulting services.
5. That staff report back to General Committee with final details of the Stormwater Climate Action Fund in the first quarter of 2022.

PURPOSE & BACKGROUND

6. This Staff Report is being prepared to summarize findings from the Stormwater Funding Study completed by AECOM Canada Ltd., and in response to motion 19-G-190:

“That staff report back to General Committee in September 2019 on the results of the Stormwater Funding Study including recommendations and next steps which may include a recommendation to establish a stormwater levy.”
7. The Stormwater Funding Study has been underway since late 2018 and is now complete. The objectives of this study were to determine the feasibility of implementing a dedicated revenue stream for stormwater infrastructure, develop a business case and develop an implementation plan.
8. The City owns stormwater infrastructure assets valued at over \$1 billion dollars. The purpose of this infrastructure is to protect public safety, private property and mitigate environmental damage by managing urban runoff by safely controlling and conveying flows as well as providing water quality treatment. This asset portfolio is expected to grow by 50% over the next 20 years.
9. The City experiences flooding during major storm events. Frequent flooding has been documented throughout the City and is typically either attributed to infrastructure that is undersized relative to current design standards or blockages that occur due to the flooding event. Flooding can cause damage to public infrastructure and private property, negatively impacts public safety and contributes to degradation of the natural environment.
10. The City faces unique challenges resulting in increased stormwater funding needs; these challenges include:
 - a) Intensification / level of development – although intensification is desired and is required by the province, intensification results in more hard surfaces. Hard surfaces include building roofs, parking lots, driveways, sidewalks and patios. Hard surfaces do not allow precipitation to soak into the ground and do not slow runoff as compared to grassed areas or forests. This results in large quantities of fast moving runoff entering watercourses.
 - b) Climate change – a warmer atmosphere holds more moisture, this results in increased rainfall intensity, which increases frequency and magnitude of flooding. Barrie’s steep topography, small watersheds and level of development makes our City particularly prone to flooding.
 - c) Lake Simcoe Protection Plan (LSPP) – the LSPP has introduced additional requirements to improve stormwater quality, particularly as it relates to reducing phosphorus. These requirements are typically addressed through the implementation of low impact development infrastructure. Low impact development infrastructure is costly to construct and maintain.
 - d) Aging infrastructure – due to the relatively young age of the City’s stormwater infrastructure, the City has been able to maintain existing stormwater infrastructure with minimal investment, but as the age of this infrastructure increases, renewal needs will steadily increase.
 - e) Maintenance Backlog – although the City has significantly increased the rate of operations and maintenance activities, the City still has a maintenance backlog, which has the potential to negatively impact stormwater system performance.

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11. The City has completed a number of studies, most recently the 2019 Drainage Master Plan, which focused on identifying solutions to mitigate flooding and water quality concerns. The Drainage Master Plan identified in excess of \$300 million in capital improvements. The recommended solutions do not address renewal or operational needs.
 12. Under the City's current revenue model, capital, operating and maintenance costs required for stormwater infrastructure are funded through the property tax rate, development charges where eligible, grants and the Federal Gas Tax.

ANALYSIS

13. The Stormwater Funding Study assessed the City's current capital, renewal, operational and maintenance programs and concluded the City is underinvesting in stormwater infrastructure. Underinvestment in stormwater infrastructure is a common problem faced by many municipalities. To help address this problem in a fair and equitable manner, a number of municipalities have created a dedicated revenue stream as the primary funding source (as opposed to the primary funding source being property taxes). Municipalities within Ontario that have implemented this solution include Orillia, Newmarket, Aurora, Markham, Richmond Hill, Mississauga, Guelph, Hamilton, Kitchener, Waterloo, Ottawa, London and St. Thomas.
14. This type of dedicated revenue source is often referred to as a stormwater user rate or stormwater utility. This solution is considered fair and equitable as it is based on the amount of hard surfaces on a property as that directly correlates to the amount of stormwater runoff generated from a property. The more stormwater runoff generated equates to more consumption (or demand) of the City's stormwater infrastructure. A property with more hard surfaces would pay a commensurately higher fee to correlate with increased consumption. This would result in stormwater infrastructure being funded in the same manner as the City's water and wastewater infrastructure (fees based on consumption).
15. Creation of a dedicated revenue stream contrasts with the current practice of primarily using property taxes to fund stormwater infrastructure as property taxes are based on assessed property value. Assessed property value poorly correlates to consumption (or demand) of stormwater infrastructure.
16. The Stormwater Funding Study recommended that the City implement a dedicated revenue stream as the primary revenue source and continue to use development charges to fund growth related infrastructure. It is recommended that the City continues to utilize Federal Gas Tax revenue (as it currently is today) and continue to pursue grants when available.
17. As part of this study effort, staff worked with AECOM to consider other alternatives to a dedicated revenue stream including:
 - a) Dedicating a greater share of current property tax revenues to stormwater infrastructure (resulting in less funds for other City services); and
 - b) Increasing the property tax rate and directing the additional revenue to fund stormwater infrastructure via a dedicated levy.

Both alternatives were rejected as they do not incentivize private property owners to maintain and/or invest in private property stormwater infrastructure, allow property owners to control what they pay and are not considered fair and equitable. In addition, redirecting funding from other City services would require reductions in service levels.

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18. A dedicated revenue stream has a number of advantages including:
- a) Dedicated and stable funding – this allows for more certainty when planning stormwater infrastructure improvements as well as providing flexibility to develop more efficient operation and maintenance programs of larger scope to leverage economies of scale.
 - b) Fair and equitable – a dedicated revenue stream will shift the burden to those with the greatest amount of hard surfaces; properties with more hard surfaces are charged a higher fee as compared to properties with less hard surfaces. A dedicated revenue stream results in revenue being more equitably collected from users as compared to collecting revenue through property taxes.
 - c) Encourages private stormwater investment – rebates/credits could be structured to encourage investment and maintenance in private stormwater infrastructure by private property owners; this benefits the City and provides users the ability to control how much they pay.
19. The next phase of work will develop the recommended Stormwater Climate Action Fund, including the technical analysis that will develop specific fees, a service level review for capital and operations as well as input from the City's Stormwater Asset Management Plan that is presently underway. This phase will also include the development of rebate programs, internal processes and public education. Once this work is completed, staff will report back to council for final approval of the recommended Stormwater Climate Action Fund. Following approval, the final work will be completed for implementation. Milestone dates are as follows:
- a) Report to Council with Stormwater Climate Action Fund details – Q1 2022
 - b) Fees effective – Q1 2023
20. Staff undertook a competitive procurement process to retain AECOM Canada Ltd., to complete the Stormwater Funding Study. AECOM's project team has extensive experience implementing stormwater user rates in Canada and the United States and is uniquely suited to assist the City with the next phase of work. Staff recommend that AECOM Canada Ltd., is retained through a sole source agreement subject to the development of terms approved by the Director of Finance and Director Engineering.
21. Internal resourcing will be required to successfully implement the Stormwater Climate Action Fund. The core project team will consist of:
- a) Project Manager
 - b) Technical Leads from Engineering, Finance and Communications

Temporary positions will be created for the core team and will be funded from future Stormwater Climate Action Fund. Overall project dedication is 50% for the core project team.

Tertiary support will be required from Roads, Parks and Fleet, Information Technology, Legal Services and Invest Barrie. It is expected that contributions from these groups will be incorporated into their respective work plans at current staffing levels. All affected groups have been included in development of the Stormwater Climate Action Fund work plan and schedule.

ENVIRONMENTAL AND CLIMATE CHANGE IMPACT MATTERS

22. The following environmental and climate change impact matters have been considered in the development of the recommendation:
- a) The establishment of a Stormwater Climate Action Fund with increased funding for stormwater infrastructure, will result in reduced frequency of flooding, improved water quality and reduced creek erosion which will help mitigate the effects of climate change.

ALTERNATIVES

23. The following alternatives are available for consideration by General Committee:

Alternative #1

General Committee could alter the proposed recommendation by directing staff to develop budget scenarios that allocate a greater portion of property tax revenues towards stormwater infrastructure.

This alternative is not recommended without a corresponding increase in the property tax rate, as it will result in less funding for other City services that are also funded through property taxes.

Alternative #2

General Committee could alter the proposed recommendation by directing staff to develop budget scenarios that increase the property tax rate with the increased revenue dedicated to stormwater infrastructure by way of a dedicated levy.

Although this alternative is available, it is not recommended as it does not provide the same opportunity for the City to incentivize the maintenance and investment of private stormwater infrastructure.

FINANCIAL

24. To fund the Stormwater Climate Action Fund, a capital project with a total 3 year budget of \$1,400,000 is required. This amount would be funded from the Tax Capital Reserve and repaid from revenue generated by the fund once implemented.

LINKAGE TO 2018-2022 STRATEGIC PLAN

25. The recommendation(s) included in this Staff Report support the following goals identified in the 2018 - 2022 Strategic Plan:
- Fostering a Safe and Healthy City
 - Offering Innovation and Citizen Driven Services
26. The implementation of a Stormwater Climate Action Fund will help build a safe and healthy City through the implementation of infrastructure that is directly needed to address and mitigate climate change impacts as well as encouraging the implementation of green infrastructure to help improve water quality, creating a healthier environment.
27. Incorporating rebates will positively affect the environment by encouraging users to implement private property stormwater infrastructure.