

City of Mississauga Corporate Report



<p>Date: October 6, 2021</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works</p>	<p>Meeting date: October 20, 2021</p>

Subject

Stormwater Charge Credit Program – Proposed Enhancements

Recommendation

1. That the Enhanced Stormwater Charge Credit Program as outlined in the report dated October 6, 2021 from the Commissioner of Transportation and Works titled Stormwater Charge Credit Program – Proposed Enhancements be approved.
2. That the updated changes to the Stormwater Credit Program for Multi-Residential and/or Non-Residential Properties 04-14-03 Corporate Policy & Procedure be implemented.
3. That the by-law be enacted to amend the Stormwater Fees and Charges By-law 0295-2020.

Executive Summary

- In December 2019, the City commenced a multi-phased review of its Stormwater Charge Credit Program. This review was undertaken with the assistance of Resilient Consulting Corporation and their sub-consultant CHI (the 'Consulting Team')
- A Corporate Report dated October 20, 2020 from the Commissioner of Transportation and Works titled *Stormwater Charge Credit Program – 5 Year Review* was presented to General Committee on November 18, 2020 which, among other matters, confirmed that the City's Non- and Multi-residential Credit Program ('Credit Program') is robust and generally consistent with other large benchmarked communities in North America, and also recommended five shortlisted credit program improvements for further consideration
- The City and the Consulting Team have completed an in-depth review of the five recommended options and propose that the Credit Program be enhanced to increase flexibility and opportunities for non- and multi-residential property owners and better align with the City's stormwater management objectives

- Implementing the enhanced Credit Program will involve amending the stormwater credit schedule in the Stormwater Fees and Charges By-law and associated programs, including updates of policies and administrative processes such as manuals, application requirements, terms and conditions of approval, forms and standards, and program outreach and awareness
- If approved, it is anticipated that the launch of the enhanced Credit Program will be in late 2022

Background

In December 2019, as the City headed into the fifth year of its Stormwater Charge Program, staff and the Consultant Team commenced a multi-phased study to review the Credit Program and undertake a benchmarking exercise on credit programs and residential incentives that are being offered by other communities in North America to identify any new approaches which may warrant further consideration.

The Phase 1 study found, among other matters, that the City's Credit Program is robust and generally consistent with other large benchmarked communities in North America. Further, the study found that the maximum 50 percent credit given by the City is in-line with the median value of maximum credit offered by the benchmarked communities. While the study findings are encouraging, the following five shortlisted options were recommended for further consideration as part of the Phase 2 study:

1. Define variable credit criteria for Peak Flow Reduction by geography.
2. Change the maximum credit amounts allowed in each of the credit categories.
3. Apply a sliding scale criteria.
4. Expand the list of eligible practices or stormwater management measures to achieve credits.
5. Formalize the process for communal facilities to share credits.

The study also concluded that the Stormwater Outreach and Education Program currently in place remains the best option and most cost-effective way to engage and educate Mississauga's residential community.

The findings of this study were presented to and received by General Committee on November 18, 2020 in a Corporate Report dated October 20, 2020 from the Commissioner of Transportation and Works titled *Stormwater Charge Credit Program – 5 Year Review*. This report recommended that staff report back to General Committee with a detailed implementation plan addressing the proposed improvements to the Credit Program.

The City and the Consulting Team commenced Phase 2 of the study in April 2021, focussing on an in-depth review and analysis of the five shortlisted recommendations to enhance the Credit Program. This review has been completed and a summary of the evaluation and recommended improvements is presented in this Corporate Report.

Comments

To enhance the Credit Program, the overall goal is to increase flexibility and opportunities resulting in mutual benefits for property owners and the City's receiving stormwater system. The following discussions highlight the current state of the Credit Program and proposed improvements to achieve this goal.

Current State of the Credit Program

The Credit Program currently offers credits for the following four categories: Peak Flow Reduction, Water Quality Treatment, Runoff Volume Reduction and Pollution Prevention.

To date, the uptake of the Credit Program has been very low with approximately 1.5 percent of eligible properties receiving a credit, with a total credit value of about \$750,000 annually. As of September 2021, 174 properties are currently receiving annual credits ranging from under \$1,000 to over \$13,000, with an average of \$4,300. Of the 174 properties, 170 or 98 percent of the total active credits applied for and received are for Peak Flow Reduction, of which only 25 properties (15 percent) receive the maximum Peak Flow Reduction credit of 40 percent. Further, of these 170 properties receiving a Peak Flow Reduction credit, 164 (96 percent) of them did not apply for or receive any credits in the three other credit categories.

In terms of the Water Quality Treatment category, only nine properties (5 percent) are currently receiving credit with two of these properties achieving the maximum credit of 10 percent. As for the Runoff Volume Reduction category, only 3 properties (2 percent) are currently receiving credit with none receiving the maximum credit of 15 percent. There are no active credits for the Pollution Prevention category. Currently, only one property receives the Credit Program's maximum credit of 50%.

It is apparent that current Credit Program applications have focused primarily on Peak Flow Reduction. It can be deduced that since peak flow control measures already exist on past developed sites, given that this was characteristically a standard stormwater management development requirement, property owners leveraged this opportunity to obtain credits.

This assessment clearly indicates that there are considerably greater opportunities to increase uptake of the Credit Program in general and specifically in the Water Quality Treatment, Runoff Volume Reduction and Pollution Prevention categories to mutually benefit property owners and the City.

Stakeholder Engagement

In an effort to learn more about opportunities and barriers to the Credit Program, the City conducted a digital survey, available between April 26, 2021 and July 7, 2021, to approximately 30 past and current credit applicants and stakeholders (note that one applicant accounts for 74 percent of the total existing properties with credits). A total of 11 responses were received by the City and a summary of the survey results are as follows:

- No respondents were very dissatisfied or very satisfied with the City's existing Credit Program, with all respondents ranging from somewhat dissatisfied to somewhat satisfied;
- 2 respondents were either very dissatisfied or somewhat dissatisfied with the application process;
- 7 respondents suggested that the required documentation could be improved;
- 10 respondents renewed their credit in 2020/2021, with 1 respondent somewhat dissatisfied with the renewal process; and
- When asked where the Credit Program eligibility could be improved, respondents would be most interested in:
 - Greater flexibility to receive maximum total credit or maximum in a credit category (8 of 11);
 - Align credits with development criteria (7 of 11); and,
 - Expand eligible practices (5 of 11).

As a next step to developing an enhanced Credit Program, existing credit applicants, consultants, conservation authorities and the Mississauga Board of Trade were invited to a series of two stakeholder engagement meetings.

The stakeholder engagement meetings were held on June 30, 2021 and September 15, 2021 with 20 and 13 stakeholders attending respectively. Highlights of the meetings included:

- Phase 1 study overview;
- Phase 2 study details;
- Review of potential Credit Program enhancements from the Phase 1 study; and
- Presentation of the recommended enhanced Credit Program.

Staff also presented at Mississauga Board of Trade's Environmental and Sustainability Committee on September 24, 2021 highlighting the proposed changes of the Credit Program to Committee members.

Based on the feedback received, it is staff's view that the stakeholders are supportive of the proposed changes. However, some stakeholders continued to request that the City reconsider increasing the overall maximum credit beyond 50 percent to promote greater Credit Program interest and potential uptake.

Proposed Credit Program Enhancements

As mentioned above, five recommendations to improve the Credit Program were shortlisted for further consideration as part of the Phase 2 study. The overall approach to this review was premised on providing greater flexibility and opportunities resulting in mutual benefits to property owners and the City's receiving stormwater system. These five recommendations have been considered in greater detail and discussed below.

1. Define variable credit criteria for Peak Flow Reduction by geography

The current Peak Flow Reduction credit criterion is applied uniformly across the City and based on the percent reduction of the 100-year flow from post- to pre-development condition. The City recommends that this criterion be revised to reflect a variable credit approach defined by geography, at a watershed or sub-watershed level, based on the City's current development requirements; established in consultation with conservation authorities through master drainage planning and watershed and sub-watershed hydrologic modelling studies. This approach will provide on-site stormwater management measures in areas where these would be most effective and not in areas where they would be less effective (as over-controlling beyond requirements to achieve a greater credit amount may not provide reciprocal benefits to the City's stormwater system). At the same time, by having this criterion aligned with development requirements, it may lessen the need for the eventual property owner(s) to undertake additional efforts in support of their credit applications.

It should, however, be pointed out that the City's development requirements for a few watersheds and sub-watersheds, including Credit River, Fletcher's Creek and Etobicoke Creek (Main Branch & Lower Etobicoke), do not require peak flow control. Under these circumstances, Peak Flow Reduction credit would no longer be available within these areas.

2. Change the maximum credit amounts allowed in each of the credit categories

Current credit amounts were developed to reflect the objectives of the City's Stormwater Program at the time when the Credit Program was originally being developed. The current stormwater credit schedule for non- and multi-residential properties and the recommended credit amount is shown in Table 1.

Table 1: Stormwater credit schedule for Non- and Multi-residential properties

Credit Category	Current Credit Amount (50% maximum)	Recommended Credit Amount (50% maximum)
Peak Flow Reduction	Up to 40%	Up to 40%
Water Quality Treatment	Up to 10%	Up to 30%
Runoff Volume Reduction	Up to 15%	Up to 30%
Operations and Activities (formerly Pollution Prevention)	Up to 5%	Up to 20%

The Phase 2 study found that while the Peak Flow Reduction (Flood control) category remains an integral part of the City's Stormwater Program and should remain at 40%, greater emphasis should also be placed on the Water Quality Treatment and Runoff Volume Reduction (capture and retain rainfall on-site) categories to better align with the City's stormwater management goals and objectives and 'Build Beautiful', the City's Stormwater Master Plan (in-progress). Further, the Phase 2 study confirmed that the current requirements to achieve Pollution Prevention credits are onerous and that changes are recommended to allow for a greater spectrum of eligible practices and activities which can assist businesses in preventing pollution from entering the City's stormwater system.

As mentioned earlier, of the 174 properties currently receiving credits, very few are applying for and receiving credits for Water Quality Treatment and Runoff Volume Reduction while no properties are currently receiving credit for Pollution Prevention.

Given the City's commitment to managing stormwater to protect its residents and businesses, and preserving our natural environment, staff recommends providing existing credit holders and future applicants the benefit of increased flexibility and opportunities by raising the maximum credit amounts for the Water Quality Treatment, Runoff Volume Reduction and Operations and Activities (formerly Pollution Prevention) categories as shown in Table 1 to encourage greater uptake of the Credit Program.

As stated earlier, during stakeholder engagement, requests were made to reconsider raising the City's maximum 50 percent total credit amount which can be applied against an applicant's assessed stormwater charge. It remains staff's recommendation that the maximum 50 percent total credit amount is reasonable and consistent with other benchmarked communities in North America, which was confirmed as part of the Phase 1 study. Unlike Mississauga, some benchmarked communities have developed their programs with a focus towards meeting regulations or legal obligations under enforcement orders to reduce combined sewer overflow. As such, offering high maximum credit amounts is a means of encouraging uptake in an effort to meet strict compliance requirements that are not applicable to Mississauga.

The recommended changes in criteria and increases in maximum credit amounts under three of the four credit categories will provide flexibility to applicants and potentially result in further stormwater management on private property and a greater uptake of the Credit Program.

3. Apply a sliding scale criteria

A 'sliding scale' or partial credit approach is currently available for all credit categories but Water Quality Treatment. Currently under this category, a credit amount of up to 10 percent will only be granted for the portion of impervious area directed to a facility that provides 'Enhanced' water quality level of protection (80% Total Suspended Solids (TSS) removal), the highest of three levels of protection in accordance with Provincial criteria. Given this, existing property owners who wish to obtain Water Quality Treatment credits for existing facilities that provide 'Normal' or 'Basic' protection or through site retrofit may not be able to meet this full control due to site constraints or cost. As such, it is proposed that the requirements for this category be revised to reflect a partial credit approach similar to the one presented in Table 2 below.

Table 2: Proposed change to Water Quality Treatment Category

Water Quality Treatment	Current Credit Amount	Proposed Credit Amount
Enhanced (80% TSS removal)	Up to 10%	Up to 30%
Normal (70% TSS removal)	0%	Up to 23%
Basic (60% TSS removal)	0%	Up to 15%

It should be noted that a 'sliding scale' approach will remain for the other three categories with the recommended enhancements to the Credit Program.

4. Expand the list of eligible practices or stormwater management measures to achieve credits

The current *Credit Application Guidance Manual (2015)* lists numerous practices that are considered as eligible technologies for credit. Given that stormwater management practices and technologies are constantly evolving, the City will expand the list of stormwater management practices or measures that will be eligible for credits.

As mentioned, the Phase 2 study confirmed that the current requirements to achieve Pollution Prevention credits are onerous. It is recommended that a greater suite of practices and activities be made eligible for credit. To complement these changes, it is also recommended that 'Pollution Prevention' category be renamed 'Operations and Activities'.

5. Formalize the process for communal facilities to share credits

The City currently allows for credits to be allocated to multiple property owners for communal stormwater management measures based on contributing impervious area or some other acceptable cost-share formula among property owners. However, there is no formalized process or guidance documentation for this practice.

While there have not been any applications processed to-date, promotion of communal stormwater management measures by Credit Valley Conservation, and particularly in the Southdown district of Mississauga may peak interest. As such, the City, in consultation with conservation authorities, has developed an application checklist to assist applicants. The City will begin to formalize business rules and the administration of shared credits as part of the implementation plan.

Implications to Existing Credit Holders

As previously discussed, the City is recommending changes in credit criteria and/or credit amounts under all credit categories. For active credit holders, it is difficult to predict what the impact to their credit amounts would be at time of renewal given that the proposed credit schedule allows for much greater flexibility and increased credit amounts from which to take advantage of.

Nonetheless, if the focus is strictly on the Peak Flow Reduction category, given that the vast majority of total active credits applied for and received pertain to this category, it is anticipated that some active credit holders may see a slight decrease in credit amount received under this category. With that said, however, 11 properties or 6 percent of total active credits, draining into the Credit River or Main/Lower Etobicoke Creek where quantity control is not a development requirement, will lose their entire Peak Flow Reduction credit amount. The reduction or loss of some credits is a result of aligning the Credit Program criteria with development criteria, as discussed above, that ultimately provides reciprocal benefits to the City's stormwater system to the level and where it is needed.

It should be reiterated that given the increased flexibility and opportunities for property owners from the proposed enhanced Credit Program, there will be greater chances for active credit holders to increase credit amounts at time of renewal.

To support active credit holders with the transition to the enhanced Credit Program, once implemented, existing credit holders would continue to receive their existing credits until expiry of their application after a five-year term (e.g. if credit was renewed in 2021, it would remain in effect until 2026). In addition, existing credit holders may submit an updated application or re-apply under the new credit schedule at any time to realize potential increased credit.

Financial Impact Analysis

A financial review was completed to identify and forecast potential impacts to the stormwater budget from implementing the enhanced Credit Program. The first analysis assessed the financial impact of providing more flexibility and opportunities for credits to active credit holders. For example, by increasing the maximum credit amount in three of four categories, current credit holders may choose to update their applications with the City to take advantage of existing on-site measures that may have originally received a lesser or no credit, or would like to apply for newly implemented on-site measures that are now eligible. A variety of scenarios were considered ranging from a five percent to 15 percent increase in the total Credit Program costs. It was noted that the large majority of existing credit holders had not applied for Water Quality Treatment or Runoff Volume Reduction and had recently completed their 5-year credit renewal.

As such, an increase of five percent was deemed to be a realistic projection that could result in an approximately \$40,000 increase in total Credit Program costs. However, there is currently capacity in the existing Program budget to absorb such an increase resulting from active credit holders and little to no financial impact is anticipated.

A second analysis was undertaken to evaluate the impact of the stormwater budget given the potential uptake of new credit applicants in response to the proposed enhanced Credit Program.

Staff leveraged approved building permit data (new buildings and additions) for non-residential and multi-residential development since 2017 to represent the potential capacity for properties to apply for a credit under the enhanced Credit Program. This assumes the properties have satisfied stormwater management criteria through their development applications and have on-site measures eligible for credit. The annual average number of building permit applications was calculated as a predictor of future eligible properties. This number was then multiplied by three projected uptake increase scenarios: 10 percent, 15 percent and 20 percent, representing a 'low' (9 new credits/year), 'medium' (14 new credits/year) and 'high' (19 new credits/year) annual increase in uptake respectively. Typically, the Credit Program has averaged up to seven new applications each year; however, this is influenced by a higher volume of applications in a renewal year such as in 2020. Under each scenario, the annual increase in applications was multiplied by the existing median credit amount and forecasted over a five-year timeframe (2022 to 2026). The five-year program costs were then compared to the five-year forecasted budget and the potential increase in program costs was identified.

Through this analysis, the 15 percent annual increase in applications or the 'medium' uptake scenario was deemed to be a conservative approach to budget for potential increases to program costs. Over five years (2022 to 2026), the forecasted cumulative increase in program costs under this scenario is estimated to be approximately \$650,000 with an annual program budget of \$1.4 million by 2026. This represents a substantial increase in costs in comparison to today's Credit Program budget of \$812,000. However, the potential increase is less impactful

on the overall stormwater budget (based on \$43.5 million) representing a total increase of approximately 1.5 percent.

In the coming years, this budget forecast will be re-evaluated yearly based on actual uptake and historic trends. Should the 'medium' uptake forecasted scenario closely resemble actual uptake, it is staff's opinion that the existing stormwater budget can accommodate the incremental annual increases with minimal impact to the Stormwater Charge rate and associated capital and operating programs. It is worth noting that the forecasted budget scenario does not account for credit expiries or cancellations that will offset against potential increases in program costs.

Implementation Plan

If approved by Council, the next steps in enhancing the Credit Program will include the completion of the following main tasks:

- Finalize eligible suite of practices, requirements and range of credits for the renamed category 'Operations and Activities';
- Update the *Stormwater Charge Credit Application Guidance Manual* with proposed changes and new opportunities eligible to applicants;
- Update application forms, administration documents and Standard Operating Procedures;
- Amend the Stormwater Fees & Charges By-law 0295-2020 and update Corporate Policies and Procedures for Stormwater Credit Program for Multi-Residential and/or Non-Residential Properties 04-14-03;
- Implement changes to existing Stormwater Charge administration, billing and IT systems
- Update relevant webpage content; and
- Provide notice of enhanced Program implementation to existing credit holders and complete outreach and awareness campaign to eligible property owners.

It is anticipated that the launch of the enhanced Credit Program would be tentatively scheduled for late 2022.

Strategic Plan

The Stormwater Charge Credit Program aligns with the *Connect: Completing our Neighbourhoods*, *Prosper: Cultivating Creative and Innovative Businesses* and *Green: Living Green* pillars.

Financial Impact

There are no immediate financial impacts resulting from the adoption of the recommendations in this report. Further to the analysis above, staff will budget for a conservative uptake of the enhanced Credit Program by anticipating several new applications each year beginning with the 2023 operating budget. Actual uptake will be tracked and the budget forecast will be re-evaluated on a yearly basis. The existing stormwater budget can accommodate the projected increases to the program with minimal impact to the Stormwater Charge rate.

Conclusion

The recommended enhancements to the City's Stormwater Charge Credit Program will be a step towards providing greater flexibility and opportunities to property owners while receiving reciprocal benefits to the City's stormwater system.

If the enhanced Credit Program is approved, a substantive amount of work will follow in preparation for the tentatively scheduled late 2022 launch.



Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works

Prepared by: Scott Perry, LEL, Manager, Stormwater Assets & Programming