Storm Water Management Credit Program

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

1. That a Storm Water Management Credit program for Industrial, Commercial, Institutional and Multi-Unit Residential properties be implemented to provide the following maximum credits in three categories up to a total maximum credit of 50%:
   a) 20% for water quality treatment;
   b) 30% for reducing storm water runoff peak flow through on-site detention;
   c) 50% for reducing storm water runoff volume through on-site retention; and
2. That the City Solicitor be requested to amend the new Storm Water Management Utility Bylaw, 2019 to include the approved Storm Water Management Credit program for implementation effective January 1, 2019.

Topic and Purpose

The purpose of this report is to propose a credit program to reduce storm water management charges paid by Industrial, Commercial, Institutional (ICI) and Multi-Unit Residential (MUR) property owners who make investments to improve quality and reduce quantity of runoff.

Report Highlights

1. Storm water management charges are based on a user pay principle that approximates runoff based on area and surface imperviousness (how much water it can absorb).
2. Three proposed credits will support the user pay principle by reducing charges to ICI and MUR property owners who invest in on-site storm water management.
3. If approved, steps will be taken to implement the Storm Water Management Credit program for January 1, 2019.

Strategic Goals

This report supports the Strategic Goal of Environmental Leadership as the proposed program recognizes improved quality of runoff to the Saskatchewan River basin and increased on-site water storage to reduce the risk of property flooding from intense rain events that may become more frequent and intense with climate change. This report also supports the Strategic Goal of Economic Diversity and Prosperity as the credit program can be used by commercial enterprises to offset a portion of their storm water management charges.

Background

The following directive was approved by City Council at its meeting held on August 28, 2017, in part:

> " 8. That the Administration report back outlining possible incentives to residential and/or commercial/industrial property owners to promote demonstrated onsite storm water management not only for new development/infill development, but for retrofit with possible emphasis on established and flood-prone areas."

Report

Storm Water Management Charge

The Storm Water Utility is funded by the Storm Water Management Charge. The unit of measure is the Equivalent Runoff Unit (ERU). Since 2012, one ERU has been valued at $52.80 per year, which is the amount single family residential properties pay.

ICI and MUR properties can generate significantly more storm water runoff than single family residential properties generate; therefore, they are charged multiple ERUs ranging from a minimum of two ERUs ($105.60) to a maximum of 100 ERUs ($5,280). In 2017, City Council approved increases to the annual ERU rate from 2019 to 2022 as provided in Attachment 1.

Storm Water Credits

Several municipalities with storm water utilities offer credits that recognize investments in on-site storm water management that contribute to the following objectives:

- Improve water quality entering the storm water system, rivers, and other water bodies;
- Reduce water entering the storm water system to mitigate flood risk; and
- Reduce annual operating and long-term capital costs for storm water infrastructure.

A summary of other storm water credit programs in Canada is provided in Attachment 2. The formulas proposed for Saskatoon's credit program are based on lessons learned from other municipalities and consultations with representatives of Saskatoon's business community.

A maximum 50% credit of the annual Storm Water Management charge is proposed, which could be a combination of the following credits:

- Maximum of 20% for Water Quality Improvement;
- Maximum of 30% for Peak Flow Reduction; and
- Maximum of 50% for On-site Retention.

Property owners may apply under the category providing the highest credit. Examples of how the credits would be applied to different types of properties is provided in Attachment 3.

The following provides a brief description of the three categories for credits:

1. Water Quality Improvement Credit: Based on the percentage of storm water directed through a quality control infrastructure such as an Oil and Grit Separator that meets the minimum standard. Other options, such as low impact development or filters, also will be considered.

   Example: If 50% of runoff is directed through an approved Oil and Grit Separator, the credit would be 50% X 20% = 10%.

2. Peak Flow Reduction Credit: Provided for the proportion of peak flow rate reduction by holding the storm water on-site during intense rain and releasing it slowly to the City's storm water system. Eligible infrastructure examples include orifice controls along with parking lot storage, super-pipe storage, roof-top storage, or storm water retention ponds. Credits will be given for reducing the storm water peak flow to the storm water system for a standard 1-in-2 year rain event. The maximum credit of 30% is proposed for peak flow reduction of up to 75%. The credit is equal to 0.4 multiplied by the peak flow reduction percentage.

   Example: If 50% of the peak flow from a 1-in-2 year rain event is directed to a detention infrastructure, the credit would be 0.4 X 50% = 20%.

3. On-site Retention Credit: Offered for retaining storm water on-site and not releasing it to the City's storm water system. Examples of eligible low impact development infrastructure that could retain runoff include rain gardens, cisterns, permeable pavement, infiltration galleries, green roofs, and rainwater harvesting systems. A credit of 2% per millimeter of water retained up to 50% maximum is proposed.

   Example: If infrastructure retains runoff from a 20 mm rainfall on-site, the credit would be 20 X 2% = 40% credit.

Property owners will submit a storm water credit application effective for up to five years to include the amounts certified by a qualified professional engineer with supporting calculations and maintenance plans to be verified by a City Engineer. Property owners with on-site storm water management plans, previously approved by the City, will need to apply for the credits but will not be required to have their application certified by their engineer to keep their application costs low. The renewal process will aim to minimize required paperwork, but some maintenance plans may require annual maintenance records or receipts to verify continuing credit eligibility. Proposals for multi-site storm water management will be considered on a case-by-case basis.

City staff will require written permission by the owners to perform limited inspections to confirm that the on-site storm water infrastructure is operating as expected.

If the system is not maintained or an inspection deems the system to not be working as described, the credit may be decreased or terminated, and the property owner will be required to pay back any credits received since the last verification by the City.

Next Steps

If the Storm Water Management Credit program is approved, the Administration will consult with business representatives on implementation details. An application form and manual will be prepared.

A separate report, The Storm Water Management Utility Bylaw, 2019, is recommending that the City Solicitor be requested to consolidate Bylaw No. 8070, The Storm Water Management Utility Bylaw, 2001 and Bylaw No. 8987, The Storm Water Management Utility Bylaw, 2011 into a new bylaw. This new bylaw will be prepared to incorporate the Storm Water Management Credit program, if approved, with implementation to begin January 1, 2019.

Options to the Recommendation

City Council may choose to not adopt a Storm Water Management Credit program. Commercial properties that make substantial investments in on-site storm water treatment, retention, and/or detention would pay the same annual charges as other similar properties without enhancements.

Credits for single-family residential properties are an option but are not recommended because of the relatively high costs that residential properties would need to incur to have meaningful impacts on storm water runoff, the cost to administer, and the lower storm water fees that they pay compared to commercial properties. Comments from other jurisdictions indicated that the uptake for residential credits has been lower than expected and that the impact on the storm water system has not justified the program. Saskatoon residents are currently eligible for a $20 rebate towards purchases of rain barrels.

City Council may request changes to the proposed credit program such as eligibility or credit amounts. The proposed program has considered the City's objectives for on-site storm water management, financial implications, and other municipalities' credit programs.

Public and/or Stakeholder Involvement

In July and September 2018, discussions were held with invited representatives from the business community including the Greater Saskatoon Chamber of Commerce, North Saskatoon Business Association, Saskatoon and Region Homebuilders Association, development companies, and engineering firms to get feedback about the proposed credit program. The proposed credit program concept was well-received and changes were made to the proposed program based on the input. The business representatives will be consulted again as implementation details are being finalized. Phone interviews were also conducted with representatives from other municipalities about the take-up and the reaction by businesses to their programs.

In addition, internal stakeholders were consulted to determine the impact on the billing process.

Communication Plan

As the new ERU rates for commercial properties are phased-in, businesses will be encouraged to consider opportunities to take advantage of the storm water management credits. The credits will be promoted to businesses with a targeted campaign including inserts in the 2019 annual Storm Water Utility bills. The Administration will also work in collaboration with business organizations and others to promote the credit program to their members. Information about the credits will be provided on Saskatoon.ca and support will be provided by the Storm Water Utility for businesses who want to learn more. The messaging to businesses will emphasize the importance of on-site storm water management to reduce flood risks.

Financial Implications

The projected cost to set-up, administer and communicate the program in 2019 will be $24,000 and will be absorbed in existing Capital Project #1619 – Storm Sewer Trunk Network Management. Over the longer term, depending on program take-up, an annual budget of $20,000 is required for program administration and will be incorporated in the Storm Water Utility's operating budget.

The reduction in Storm Water Utility revenue will depend on the number of properties that apply for the credit, the ERUs that the eligible properties pay, and their eligible credits. The credit is expected to mostly reduce future increases in revenue that would be paid by developments that implement infrastructure to meet new standards for storm water quality and quantity. In 2019, if a property were to be eligible for the full 50% credit, the credit value per property would range from $66.30 to $3,315 depending on how many ERUs they pay. The credits will increase from 2020 to 2022 due to approved rate increases for the Storm Water Management charges. The Storm Water Utility bills will be adjusted for owners who qualify for the credit.

Since the new design standards were put in place in 2016, 25 properties were required to install an Oil and Grit Separator and 85 properties were required to control runoff volume. If 110 companies with an average of 22 ERUs were eligible for an average credit of 30%, the total reduction in revenue would be $48,000 in 2019. If the number of businesses taking advantage of the credit increases by 25% annually, and including rate increases, the Storm Water Utility's expected annual revenue will be $258,000 (1.9% of revenues) less than it otherwise would be after five years. These estimates are expected to be high based on experiences of other municipalities.

Environmental Implications

The proposed credits promote improved quality and reduced quantity of runoff to the river with positive environmental impacts expected. The credits will contribute to the Green Infrastructure Strategy by rewarding property owners who make investments in low impact development infrastructure.

Increased on-site water storage will reduce the risk of property flooding from intense rain events that may become more frequent and intense with climate change.

Other Considerations/Implications

There are no policy, privacy or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

If the Storm Water Management Credit program is approved, the City Solicitor will incorporate the necessary changes in the new Storm Water Utility Management Bylaw, 2019 which will be prepared for City Council for December 2018. Impacts of the new program will be reported in the Storm Water Utility's Annual Reports.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachments

1. Storm Water Management Charges
2. Municipal Storm Water Utility Credit Programs Summary
3. Storm Water Credit Cost Scenarios

Report Approval

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Admin Report AS – Storm Water Management Credit Program