

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF NOVEMBER 21, 2017

Item 2, Report No. 10, of the Finance, Administration and Audit Committee, which was adopted without amendment by the Council of the City of Vaughan on November 21, 2017.

2 OPPORTUNITY TO APPLY FOR FUNDING TO ADDRESS STORMWATER CLIMATE CHANGE PROJECTS

The Finance, Administration and Audit Committee recommends approval of the recommendation contained in the following report of the Deputy City Manager of Public Works and the Director of Environmental Services, dated November 6, 2017:

Recommendation

The Deputy City Manager of Public Works and the Director of Environmental Services in consultation with the Director of Infrastructure Delivery, Director of Development Engineering and Infrastructure Planning, Director of Policy Planning and Environmental Sustainability as well as Director of Financial Services recommend:

1. That City Council approve the submission of an application to the Federation of Canadian Municipalities for Climate Innovation Program (MCIP) to support the implementation of measures to address stormwater climate change vulnerabilities, and
2. That City Council support the submission of any award applications that may showcase the implementation of stormwater climate change adaptation projects.

Contribution to Sustainability

The implementation of measures to address stormwater climate change will directly support *Green Directions Vaughan* Goal 1: To significantly reduce our use of natural resources and the amount of waste we generate. Furthermore, it directly adds resolution to the following objective:

- Objective 1.3: To support enhanced standards of stormwater management at the City and work with others to care for Vaughan's watersheds

This stormwater climate change measures will also support *Green Directions Vaughan* action 5.1.4 which notes that a strategy to assess vulnerability to climate change and plans be developed for mitigating impacts and remedial responses

Economic Impact

The Federation of Canadian Municipalities for Climate Innovation Program (MCIP) is a new five-year, \$75-million program designed to encourage Canadian municipalities to better prepare for and adapt to the new realities of climate change as well as reduce greenhouse gas emissions. Climate adaptation studies must have the potential to reduce vulnerability of new or existing infrastructure to climate change impacts so that municipalities can continue to deliver and maintain levels of service. MCIP provides funding up to 80 % of eligible costs. A 2018 capital project has been submitted to complement the potential support from the MCIP.

Communications Plan

In order to build on the awareness around stormwater created to date, the following activities will be included as part of the plan to promote the implementation of the adaption measures resulting from the Stormwater Climate Change Risk Assessment:

- The Stormwater webpage on vaughan.ca will be updated to include relevant information about the project.

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- The project will also be promoted through other City channels.
- The City will continue to promote the effects of stormwater and the role residents play in minimizing its impacts.

The results of the Stormwater Climate Change Risk Assessment have been presented to various peer groups including the Water Environment Association of Ontario 48th Technical Symposium, the Municipal Stormwater Discussion Group, York Region Public Works Liaison Committee and the Ontario Climate Change Consortium Climate Data training session.

Purpose

The purpose of this report is to seek Council approval to apply for the FCM grant and support any submissions to award programs that result from implementation of related projects.

Background - Analysis and Options

A Stormwater Climate Change Risk Assessment was completed with an internal team with representation from Environmental Services, Development Engineering and Infrastructure Planning, Corporate Asset Management and Environmental Sustainability.

A corporate wide team worked with the Ontario Climate Consortium(OCC), led by the Toronto Region Conservation Authority to develop an vulnerability assessment anticipating the impacts climate change may have on stormwater infrastructure components such as ponds, storm pipes, ditches, inlets, catchbasins, and culverts in the future. After the assessment was completed, staff reviewed the possibilities of those impacts and decided on a course of action to address future climate change impacts. Risk was assessed for the present time horizon and for the future time period to 2050.

In 2016, as a result of the exercise, it was determined that there were areas within Vaughan that were more susceptible to climate change impacts because they were in low lying areas, had a shallow depth to groundwater, or had a history of flooding. Staff would like to pilot technologies in one residential and one commercial area that would minimize climate change impacts in these more susceptible areas. These technologies include:

- Rain Grid is an automated rain barrel system that holds rainwater and slowly releases it to the environment. This will help keep water out of the storm system until after the rain event has passed.
- Catchbasin Shield slows down the water as it enters a manhole and captures sedimentation. This keeps debris from entering the storm system
- BMP Snout and Trash Screen accessory which reduces and potentially eliminates debris from entering the system before it enters the catchbasin.

The FCM grant would enable to the City to pilot three technologies to determine the effectiveness to reduce the impacts of climate change.

Once the technologies have been evaluated, and if proven effective, an implementation plan and budget considerations will be developed to determine how best to integrate the technologies into other areas of the City's stormwater infrastructure.

Relationship to Term of Council Service Excellence Strategy Map (2014-2018)

This report supports the Term of Council Priorities to invest, renew and manage infrastructure and assets as well as continue to cultivate an environmentally sustainable city.

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Regional Implications

N/A

Conclusion

In order to build on the recently completed Stormwater Climate Change Risk Assessment, the City of Vaughan is seeking support from the Federation of Canadian Municipalities for Climate Innovation Program to fund the pilot of three technologies that have been chosen as potential mitigation measures for the vulnerabilities identified in the Risk Assessment. The pilots will be conducted in one predominantly commercial area and one predominantly residential area.

Attachments

None

Report prepared by:

Chris Wolnik, Manager of Wastewater and Stormwater Services, ext. 6152

OPPORTUNITY TO APPLY FOR FUNDING TO ADDRESS STORMWATER CLIMATE CHANGE PROJECTS**Recommendation**

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Report prepared by:

Chris Wolnik, Manager of Wastewater and Stormwater Services, ext. 6152

Respectfully submitted,

Stephen Collins, P.Eng
Deputy City Manager, Public Works

Jennifer Rose
Director, Environmental Services