
Inquiry – Councillor M. Loewen (October 11, 2011) Climate Adaptation Strategy

Recommendation

That the report of the General Manager, Corporate Performance Department dated September 14, 2015, be forwarded to City Council for information.

Topic and Purpose

This report responds to an inquiry made by Councillor Loewen regarding climate adaptation planning in Toronto and options for developing an adaptation strategy for Saskatoon.

Report Highlights

1. Climate change implications including rising temperatures, changed patterns of precipitation, and more extreme weather events have been observed and predicted for the Saskatoon Region.
2. The City of Toronto is among many cities planning for adaptation to climate change and a number of tools and resources have been developed to help municipalities become more resilient to climate change impacts.
3. The Administration currently reports on the environmental implications of initiatives and will develop additional reporting tools to identify resiliency to climate change impacts.
4. Some climate impact assessments have begun; however, comprehensive climate adaptation planning has not.

Strategic Goals

This report supports a number of four-year priorities and long-term strategies related to the Strategic Goal of Environmental Leadership. Specifically, to consider mitigation strategies for the impact of severe weather events on the City of Saskatoon's (City) infrastructure.

Background

On October 11, 2011, Councillor M. Loewen made the following inquiry:

“Would the Administration please report back to Council with options for an adaptation strategy that ensures Saskatoon's infrastructure and budget can respond adequately to the challenges of climate change? The City of Toronto's 2008 report, “Ahead of the Storm: Preparing Toronto for Climate Change,” may be used as a guide and the Administration's report should consider options like risk assessment of vulnerable infrastructure, reduction of possible flooding risks, increased parks naturalization and the possible establishment of an extreme weather reserve.”

Report

Climate Change Implications

The City of Toronto report, “Ahead of the Storm: Preparing Toronto for Climate Change” outlines the various projected climate change implications for that region and what they mean for Toronto. Climate change implications are described in more detail, including what is expected for the Saskatoon region, in Attachment 1.

Preparing for Climate Change

The impacts of climate change are largely experienced at the community level and include public health implications, water supply and storm water issues, transportation system disruptions, power disruptions, impacts to public and private properties and landscapes, and increased and/or urgent demand for social and emergency services.

The goal of preparations for climate change is to achieve greater resilience such that people, neighbourhoods, businesses, and organizations are able to cope with current climate variability as well as adapt to future climate change, preserving the quality of life achieved through current development, and minimizing damages.

City of Saskatoon – Mitigating Risks of Climate Change

The City of Saskatoon has been focussing on the mitigation of key risks through an Enterprise Risk Management approach. One risk that has been identified is that the City may be lacking a clearly articulated strategy on how to manage climate change related risks. The following current initiatives respond to this identified risk and are expected to improve the City’s adaptability to climate change impacts:

- Improved alert systems including use of Service Alerts and NotifyNow.
- Creation of an Emergency Measures Organization (EMO) office that works with civic and key community stakeholders on weather response planning.
- Completion of a study of the capacity of storm water sewer system and initiation of storm water management planning based on study results.
- Creation of a new Storm Water Utility to generate sustainable funding for infrastructure required to protect against flooding in the community.
- Increased capacity for the storage of drinking water.
- Increased sewage treatment capacity to ensure the system continues to function in wet weather conditions without spilling to the river.
- Improved weather response plans for the urban forest.
- Introduction of the Wetlands Policy to increase the use and functionality of natural or naturalized areas as ‘green infrastructure’.
- Planning for improved transit and multi-modal transportation systems through Growing Forward.
- Enhanced power backup systems to support critical communications infrastructure.

Other Municipalities

Municipalities are increasingly focussing attention and resources on preparing for climate change to ensure that the services and infrastructure they are responsible for are protected and that prudent planning of future investments considers service resiliency. Attachment 2 provides more information about climate adaptation efforts, including providing a snap-shot of current efforts by the City of Saskatoon to mitigate for the risks created by climate change.

Options for Adaptation Strategy

The inquiry requested options for an adaptation strategy for Saskatoon to ensure our infrastructure and budget can respond adequately to the challenges of climate change. The following are some options for consideration:

1. Continue current efforts, though piece-meal, to develop an understanding of climate change implications for each Service Line and identify initiatives to mitigate or adapt for these impacts through annual business planning efforts;
2. Reach out to the Universities of Saskatchewan and Regina, along with other experts, to determine whether Saskatoon could be used as a case study in comprehensive adaptation planning;
3. Implement a comprehensive planning effort similar to the City of Toronto by establishing the capital funding necessary to complete this work. The scale of the planning effort could be expected to be comparable to the Growing Forward initiative in terms of time and resource commitment.

Public and/or Stakeholder Involvement

A number of plans to address climate change risks are already underway and plans for increasing the awareness civic staff have about resiliency to climate change impacts are being developed by Environmental and Corporate Initiatives.

Most divisions have a role to play in comprehensive climate adaptation planning for Saskatoon, in particular: Facilities and Fleet Management, Finance, Fire and Protective Services Department, Parks, Planning and Development, Public Works, Recreation and Community Development, Saskatoon Land, Saskatoon Light & Power, Saskatoon Transit, Saskatoon Water, and Transportation will be engaged through the business planning process to identify adaptation initiatives.

Expertise from outside the corporation is regularly sought and members of the Administration actively participate in knowledge networks in order to engage and leverage innovation and expertise where available. In particular, a number of Centres of Excellence under the Canada Research Chairs program have been established at the University of Saskatchewan, providing excellent resources to Saskatoon.

Financial Implications

The City of Toronto noted significant budget pressures and over-expenditures of more than \$10 million had already been experienced at the time of their report and the creation of an Extreme Weather Reserve was recommended. Saskatoon has a Major

Natural Event Reserve established to assist in offsetting operational and capital expenditures required due to a major natural event such as blizzards, plough winds/tornado, heat wave, severe rain, river flood event, or extreme cold. This reserve is currently unfunded and has been capped at \$250,000. The City has also created a Snow and Ice Management Contingency Reserve to offset over-expenditures related to winter weather. This reserve has a cap equal to the value of the Snow Clearing/Removal program and has a current balance of \$977,000.

No financial implications have been identified specific to comprehensive climate adaptation planning in Saskatoon at this time. It may be noted; however, that the City of Toronto implemented climate adaptation planning work by engaging a full-time staff person, allocating funds for vulnerability and risk assessments, and mandating five civic divisions to work collaboratively up to one day a week on inter-departmental initiatives. The City also leveraged external program funding assistance for the development of their comprehensive strategy.

Other Considerations/Implications

As an information report, there are no communications, environmental, policy, privacy or CPTED implications or considerations at this time.

Due Date for Follow-up and/or Project Completion

Environmental and Corporate Initiatives developed tools to help report authors in their reporting of Environmental Implications to Committee and Council a number of years ago. These tools will continue to be updated to include advice on climate adaptation considerations and applicable reports to Committee and Council will continue to include information about climate change-related environmental implications.

Public Notice

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

Attachments

1. Climate Change Implications
2. Preparing for Climate Change (Adaptation)

Report Approval

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