
Interim Report – Climate Adaptation Strategies – Infrastructure

Recommendation

That the information be received.

Topic and Purpose

The purpose of this interim report is to provide information regarding the City of Saskatoon's (City) preparation for, and response to, severe weather events as it relates to key infrastructure assets.

Report Highlights

1. There are several measures in place or in progress to prepare for, and respond to, severe weather events in relation to key infrastructure and through the Corporate Risk Program and Corporate Asset Management Plan. Further refinement to asset planning and the retrofitting of existing assets will ensure infrastructure can be resilient during extreme weather events.
2. The Major Natural Events Reserve has a zero balance, and there are no regular or budgeted contributions to this reserve.

Strategic Goal

This report supports the four-year priority to consider mitigation strategies for the impact of severe weather events on the City's infrastructure under the Strategic Goal of Environmental Leadership.

Background

On September 28, 2015, the Standing Policy Committee on Environment, Utilities & Corporate Services resolved:

“That the Administration report back as soon as possible with the following information:

- steps for implementing systems in key departments which would evaluate new infrastructure and projects (and retrofits to existing infrastructure/projects) to ensure adequate performance in a variety of weather conditions including extreme events.
- additional information speaking to the adequacy of current funding approaches to dealing with possible changing weather conditions and their impacts on civic assets and services.”

At the January 11, 2016, meeting of the Standing Policy Committee on Environment, Utilities & Corporate Services, a question regarding the current balance and purpose of the Major Natural Event Reserve was raised.

Report

Current Strategies and Gap Identification

As an interim measure, the Administration has prepared this status report outlining the initiatives, design of infrastructure and maintenance standards that currently mitigate the impact of severe weather events on the City's infrastructure.

For the purpose of this assessment, the following major climate change risk conditions and extreme events were identified:

- prolonged drought;
- prolonged wet weather conditions;
- intense rain events with flooding;
- damaging winds;
- heavy snowfall event/blizzard;
- mild winter with freeze/thaw cycles and icing;
- extreme heat or cold; and
- pests and invasive species.

Attachment 1 is a summary of the actions taken and implemented to date, as well as plans to address the readiness and risk mitigation strategies related to the climate change impact on the City's key infrastructure (e.g. water system, wastewater system, storm water system, parks, urban forestry, electrical system and roadways/traffic signals).

The strategies related to Saskatoon Light & Power are in place for the City's franchise area only. SaskPower, which is responsible for all infrastructure outside the franchise area, was not contacted for this interim assessment.

These initiatives and risk mitigation strategies will constantly be updated through the Corporate Risk Program and the Corporate Asset Management Plan. The adjustment to asset condition and the investment in assets based on agreed upon service levels will take into account future requirements related to climate impacts. Over time these adjustments will answer the question regarding new infrastructure and projects, including retrofits, to address extreme weather events. Through the Administration's continuing work on these plans, any gaps to address the issue should be reduced or eliminated over time.

Major Natural Event Reserve

At the January 11, 2016, meeting of the Standing Policy Committee on Environment, Utilities & Corporate Services, the Major Natural Event Reserve was discussed.

The provisions of the Major Natural Event Reserve are included in Council Policy No. C03-003, Reserve for Future Expenditures. The purpose of the Reserve is "to assist in offsetting operational and capital expenditures required due to a major natural event. Major natural events include, but are not limited to, blizzards, plough winds/tornado, heat wave, severe rain, river flood event and extreme cold."

The reserve is funded through the operating budget and is capped at \$250,000. The reserve was fully funded to \$250,000 in 2010 and was fully utilized in 2014 to offset over

expenditures in the Snow and Ice Management program due to a heavy snowfall season. The current reserve balance is \$0 and there are no planned or regular budget contributions to this reserve.

The funding of the reserve has not been aligned with infrastructure needs and a reserve sufficiency plan has not been developed. Of note, with a cap of \$250,000, the reserve would likely not be sufficient to respond to a major natural event of any magnitude. The Administration plans to bring forward a report for consideration of options regarding this reserve during the 2017 Business Plan and Budget deliberations.

Communication Plan

At the present time, the City informs citizens of severe weather through Service Alerts, News Releases, social media, Notifynow (mass notification system) and dedicated news conferences for media as required. A Communications staff person is on call 24/7 to coordinate these responses.

Improved communication between Environment Canada and key divisions has resulted in a new severe weather advance notification system. This service provides program areas with earlier information received directly from Environment Canada when certain trigger weather conditions exist that may impact service levels. This notification allows divisions to prepare operational responses as early as possible.

Financial Implications

Many of the measures that are being developed to improve the City's ability to prepare for, and respond to, severe weather events are being implemented as part of ongoing operations, including the Corporate Risk Program and Corporate Asset Management Plan. Specific measures that require additional resources will be brought forward by individual departments as required within the individual asset management plans.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

Further reports on mitigation of climate change through GHG reduction will be provided to the Standing Policy Committee on Environment, Utilities & Corporate Services at its meeting on July 19, 2016.

Through the Corporate Risk Program and the Corporate Asset Management Plan, further reports will be brought forward by the Administration that will evaluate new infrastructure or retrofits to existing infrastructure to address climate impacts.

The process for incorporating climate adaptation strategies into regular business reporting is also currently being developed to be included in the 2017 Business Plan and Budget deliberations.

A report reviewing options for changes to the Major Natural Event Reserve will be prepared for inclusion in the 2017 Business Plan and Budget deliberations.

Public Notice

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

Attachment

1. Summary of Current Climate Adaptation Strategies

Report Approval

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