
National Disaster Mitigation Program – Budget Adjustment

Recommendation

That the Standing Policy Committee on Finance recommend to City Council that Capital Project No. 1619 TU - Storm Sewer Trunk and Collection be increased by \$95,500.

Topic and Purpose

The purpose of this report is to receive City Council approval for a budget adjustment required to Capital Project No. 1619 TU- Storm Sewer Trunk and Collection for the approved funding under the National Disaster Mitigation Program (NDMP).

Report Highlights

1. In April 2015, the NDMP was established to reduce the impacts of natural disasters.
2. In collaboration with the Province of Saskatchewan, the City of Saskatoon (City) submitted an application and received approval for funding under the NDMP for the Flood Mapping with Updated IDF Curves Incorporating Climate Change Risk Project.

Strategic Goals

The project proposed for flood mapping is expected to provide fundamental information to make better investment decisions for storm water infrastructure, and supports the long-term strategy of reducing the gap in funding required to rehabilitate and maintain the City's infrastructure under the Strategic Goal of Asset and Financial Sustainability.

The project also supports the four-year priority of directing expenditures toward amenities in neighbourhoods to enhance and protect property values under the Strategic Goal of Quality of Life.

Background

The City's Intensity Duration Frequency (IDF) curves currently used for storm water infrastructure design standards were adopted in 1987 and are based on rainfall data from 1900 to 1986. Since 2010, Saskatoon has had three of the top ten highest seasonal rainfalls on record. Between 2012 and 2016, the City recorded 28 days with rain events exceeding the 1 in 2-year return period. The impacts of climate change are expected to result in more frequent and intense rainfall events in the future.

In 2014, the City partnered with the University of Saskatchewan on a study to identify the likely impact of climate change on rainfall. Discussions are currently underway to consolidate the results and likelihood of the various scenarios into a single IDF curve that will be used for modelling rainfall events. After the new IDF curve for rain has been developed, flood mapping will be required to determine flood risk. The flood mapping will contribute to investment decisions for storm water infrastructure to increase resiliency to flood risk.

Report

Overview of the National Disaster Mitigation Program

In April 2015, the NDMP was established by the Government of Canada to reduce the impacts of natural disasters on Canadians by focusing investments on significant, recurring flood risks and costs.

The NDMP is only open to applications from provinces and territories; however, provincial governments may collaborate with, and redistribute funding to eligible entities, including municipal governments. The Flood Mapping Stream of the NDMP funds the development and/or modernization of flood maps to further address flood risks. A flood map identifies the boundaries of a potential flood event based on type and likelihood and can be used to help identify the specific impacts of a flood event.

Flood Mapping with Updated IDF Curves Incorporating Climate Change Risk Project

The City, through the Province of Saskatchewan, submitted an NDMP application for the Flood Mapping with Updated IDF Curves Incorporating Climate Change Risk Project and received confirmation that the application was approved for a maximum federal contribution of \$95,500.

The City has partnered with both the University of Saskatchewan and Concordia University to review the risks of climate change on rainfall events, and to develop a single IDF curve, incorporating risks of these events. The funding will be used for:

- securing LIDAR (light detection and ranging) data for new neighbourhoods;
- mapping of flood zones based on new IDF curves;
- identifying expected costs of flooding based on the flood maps;
- determining sensitivity of flood maps with different infrastructure; and
- identifying expected costs to implement alternative storm water design standards to address different flood risks due to climate change.

Options to the Recommendation

City Council can choose not to add additional funding to Capital Project No. 1619. The Administration does not recommend this option as the additional funding will help to make decisions for optimal resource allocation for storm water management infrastructure.

Public and/or Stakeholder Involvement

The City has discussed the NDMP project with representatives from the University of Saskatchewan and Concordia University, and both are eager to participate in the project.

Financial Implications

The estimated total costs for the project are \$205,000 of which a maximum of \$95,500 will be funded from the NDMP. There is sufficient funding in Capital Project No. 1619 TU - Storm Sewer Trunk and Collection for the remaining costs.

Other Considerations/Implications

There are no policy, environmental, privacy, or CPTED implications or considerations and a communication plan is not required.

Due Date for Follow-up and/or Project Completion

In accordance with the NDMP, the project must be completed by March 31, 2020.

Public Notice

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

Report Approval

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