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## Snow and Ice Management Service Level

### Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:  
That the current service level for the Snow and Ice Management service line be maintained and approved.

### Topic and Purpose

The purpose of this report is to provide information on the current service level provided under the Snow and Ice Management service line and outline options to adjust service levels for 2018.

### Report Highlights

1. The Snow and Ice Management service line delivers core service for citizens from November to April and consists of two programs: regular maintenance and snow event response.
2. The City of Saskatoon's (City) average total winter maintenance cost per lane kilometer is \$3,287; this is less than the average of \$4,800 from the Municipal Benchmarking Network Canada's 2015 Report.
3. Options are presented to enable adjustment of the current service level to increase or decrease service.
4. Recent snow and ice program improvements include increased crew coverage, expanded liquid de-icer capability, and extending the snow removal program.

### Strategic Goals

This report supports the Strategic Goals of Moving Around, Quality of Life, and Asset and Financial Sustainability. The snow and ice management programs ensure citizens and visitors can safely move around in the city in winter months. Defined service levels ensure the City is making informed financial decisions and investing in services that matter to citizens.

### Background

At the May 15, 2017 meeting of the Governance and Priorities Committee, the Administration committed to bring forward a series of service level documents on core services.

At the December 7, 2015 Standing Policy Committee on Transportation meeting, the current service level for snow and ice programs was approved. This report supports the shift of this information into the current service level template. The service level template communicates two key messages:

- Information for citizens, Committees, and City Council about “what we do”, “why we do it”, and “how much it costs” for each service line.
- Viable options to the current state of service levels, entitled “what else is possible”.

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Moving to defined service levels supports Service Saskatoon and the shift to multi-year budgeting by creating mapped processes that can be easily added to Customer Relationship Manager (CRM) software when appropriate, focusing on citizen-centric service by updating website information with “what can you expect” and “how can you help” information, and ensuring we know what our services cost to enable more accurate and reliable estimating/budgeting in the future.

### Report

#### Snow and Ice Management Service Line

Snow and ice management is a core function of the City from November to April. Programming within the service line is executed to ensure citizens and visitors can safely move around the city in winter months.

Currently, the service line consists of two programs:

- Regular Maintenance
- Snow Event Response

Attachment 1 provides additional detail on each program’s intended outcome, performance measures, guiding service attributes and customer values, and estimated unit costs.

#### Municipal Benchmarking Network Canada (MBNCanada)

MBNCanada originated in Ontario in 1998 and currently includes 6 provinces represented by 16 municipalities: Calgary, Regina, Winnipeg, Thunder Bay, Windsor, London, Hamilton, Waterloo, Toronto, Ottawa, Montreal, Halifax; as well as the Regions of Durham, York, Halton, and Niagara. Municipalities within MBNCanada collect and share data related to standard service areas in order to measure comparable performance.

Performance is measured annually in 37 service areas through 670 metrics. The Roads Service Area provides information on six metrics in its public report. One of these metrics is the “Total Cost for Winter Maintenance of Roadways per Lane Kilometre (km)”. In 2015, 15 municipalities reported on this metric resulting in an average total cost of winter maintenance per lane km of \$4,800. The municipalities reporting included all of those listed above except Regina. In 2017, the City’s average total cost for winter operations is expected to be \$3,287 per lane km.

- The lowest average cost for total winter maintenance per lane km is \$2,020 in Thunder Bay, ON and highest is in Montreal, QC at \$15,280.

#### Service Level Adjustment Options

Attachment 2 provides options to adjust the Snow and Ice Management service level and budget if interest exists. Option scenarios include those that increase or decrease the current service level to varying degrees, as well as an option to create revenue.

- Options to increase the current service level include:
  - Implementing improvement strategies and citizen feedback from the Snow & Ice Service Design Project, improving weekend night coverage, increasing snow removal, and increasing resources “on-road” during snow events.
    - Impact: Service improvements within this service line generally support citizen feedback gathered during the Snow & Ice Service Design Project.

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- **Risk:** Budget increases would be required to support improvements in a mill-rate supported service line.
- Options to create revenue or decrease the service level include:
  - Adjusting the snow management facility model to fee-for-service to cover private use, or approximately 75% of the operating and capital costs.
  - Eliminating the proposed 2018 budget increase of \$1.2M through the dedicated 0.55% mill rate increase
  - Eliminating contractor assistance with Snow Event Response, reducing costs but doubling the storm response timeline.
    - **Impact:** Reductions in the overall cost of the service line.
    - **Risk:** Contrary to citizen expectations by reducing total response time from three days to six days.

### Continuous Improvement

In recent years, snow and ice management programs have undergone extensive improvements to meet citizen expectations and ensure effectiveness. Examples include:

- Reduction of the acceptable windrow height in school zones from 75cm to 60cm;
- Increase in the area where snow is removed in school zones;
- Introduction of blue lights to snow maintenance equipment to increase visibility for staff and citizen safety;
- Creation of a dedicated weekend night shift to improve ice management coverage, storm response times, and road conditions for the morning commute;
- Completion of the data collection phase of Snow & Ice Service Design Project – focusing on citizen experiences moving around in the winter and service improvement strategies;
- Introduction of expanded communications for snow and ice, including standardized updates for email subscribers, social media followers and website visitors;
- Increase in capacity within the de-icing fleet and materials used;
- Increase in frequency of inspections and sanding for medium-traffic streets; and
- Increase in snow removal service level for high-density parking streets.

Within this context of continuous improvement and focus on adhering to the defined Snow and Ice Management service level, the City's External Auditor, PricewaterhouseCoopers LLP concluded, on July 12, 2016, the program in place is effective in achieving its objectives, and is achieving economy and efficiency.

### **Options to the Recommendation**

The Standing Policy Committee on Transportation may direct the Administration to investigate further options to reduce or increase the Snow and Ice Management service level and budget prior to making a recommendation to City Council for the 2018 Business Plan and Budget deliberations.

### **Public and Stakeholder Involvement**

The Snow & Ice Service Design Project occurred in early 2017 and included an online survey and a stakeholder co-design event focused on gathering information on citizen experiences when moving around Saskatoon in the winter. The survey yielded nearly 1,800 responses and the co-design event was attended by a diverse group of community

groups, business representatives, and school boards. Public opinion feedback gathered during this process is not the focus of this report, but has been included in the options section of the attached Options to the Current Service Level for Snow and Ice Management document. A report detailing the next steps for the data gathered through the Snow & Ice Service Design Project will be presented with the 2018 budget submission.

### **Communication Plan**

Regular snow and ice maintenance, and snow event response activities are promoted through automated Snow & Ice Updates, Public Service Announcements, social media, the City's website, and through marketing and communications material that are part of the annual Better Winter Roads campaign. Any change to the current service level or program will be communicated through these methods. If the level of service is changed significantly, additional communications will be required.

### **Financial Implications**

Snow and ice management activities are expensive. For example, snow removal for an average kilometer in the city costs approximately \$9,000. If an option is pursued to increase the service level related to snow removal, an increase in the budget will be necessary. The attached Options to the Current Service Level for Snow and Ice Management document provides budget adjustment estimates associated with each option.

### **Environmental Implications**

Snow and ice management activities are fuel and greenhouse gas intensive. For example, snow removal for an average kilometer in the city uses approximately 400 litres of fuel and creates one tonne of CO<sub>2</sub>. This is the equivalent generated by 90 cars in a day. If an option is pursued to increase the service level related to snow and ice management activities, an increase in corporate greenhouse gas emissions will be expected.

Sodium Chloride and Magnesium Chloride are used for de-icing pavement surfaces. Each of these products have potential impacts on the environment, infrastructure, and private property. Their use is monitored in ice management activities.

### **Other Considerations/Implications**

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

### **Due Date for Follow-up**

A follow-up report summarizing the outcomes of all core service level decisions will be presented to City Council during the 2018 Business Plan and Budget deliberations.

### **Public Notice**

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

### **Attachments**

1. Service Level for Snow and Ice Management
2. Options to the Current Service Level for Snow and Ice Management

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### Report Approval

Written by: Kristin Bruce, Performance Improvement Coordinator,  
Employee Experience & Performance

Written &

Reviewed by: Brandon Harris, Director of Roadways & Operations

Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities

TRANS KB – Snow and Ice Management Service Level