PWI18-16

September 6, 2018

To: Members
Public Works and Infrastructure Committee

Re: Winter Maintenance Summary Report

RECOMMENDATION

That this report be received and filed.

CONCLUSION

The 2017/2018 winter season overall, can be described as average when analyzing environmental data and measurements, but also had two unusual weather events, including freezing rain in January and a major snowfall event in March. The majority of the Winter Maintenance Policy (Policy) objectives were met throughout the winter season. Expenditures are typical and Administration is forecasting to be slightly below budget, even after a budget reduction in 2018, due to improved efficiencies and cost reductions. The budget reductions were a result of improved routing of equipment, less reliance on contracted equipment due to reduced downtime of City of Regina (City) equipment and reductions in sand/salt due to liquid salt trials.

As a result of the unusual storm events, Administration will undertake the following actions:

- Communications for the Sandbox Program will be increased.
- Resources allocated to keep the sandboxes stocked for the public to use.
- Revising our tendering process for contracted services; this will allow us to have more equipment available during storm events.
- Review of how transit routes are prioritized, ensuring priority transit routes are addressed before other streets in the same category.

BACKGROUND

Approved by City Council on December 18, 2006 and implemented in November 2007, the Policy guides operations that effectively supports the health, safety, attractiveness, and economic viability of the city. Reviewed annually, the Policy was created to provide an acceptable and consistent level of service when maintaining the road network and to ensure safe winter driving conditions for the residents of Regina. This includes guidelines and timelines regarding the plowing of streets, sidewalks, and alleys following snow events, and routine maintenance of the road network during the winter months.

A full review of the Policy will commence in 2018 and will be brought back to City Council in late 2019, along with any budget implications for a 2020 implementation of the new Policy.

DISCUSSION

Appendix A of this report provides a detailed summary of the 2017/2018 winter maintenance activities and weather conditions. The following are highlights of that report.

Environmental Conditions:
The winter season is defined as the period from October 1 to April 30.

Regina residents experienced:

- Slightly below average snowfalls
- Average temperatures
- The largest snow event in over five years
- Increased freeze/thaw cycles and slippery conditions, including a freezing rain event in January with unprecedented use of free public sand
- More days with snowfalls of less than 2 cm.

Budget & Expenditures:
The 2017 fiscal year budget was $9.234 million with expenditures of $6.936 million. The 2018 budget is $8.491 million which is $743,000 less than 2017, due to efficiencies and innovation. These include improved routing of equipment, reduced downtime for equipment and a reduction in dry sand.

Expenditures as of June 30, 2018, are $5.141 million, which is approximately 2/3 of our overall costs for the annual budget for January to April. These months are when the most snow remvoal activities occur. The total expenditures for 2018 are forecasted to be $7.879 million, which is slighltly below the budget, based on average conditions expected for October through December.

Policy Objective Achievments:
The community experienced five major snow events requiring plowing operations and winter maintenance activities outlined in the Policy.

Highlights of the achievements included:

- Applied over 14,600 tonnes of sand and salt to mitigate slippery road conditions.
- Applied 2,425 tonnes of sand and salt to City streets, sidewalks, and alleys during the freezing rain event.
- Supplied 349 tonnes of sand to our sandboxes for residents to use on their sidewalks and driveways, because of the freezing rain event.
- Stored and maintained over 316,000 cubic meters of snow at the Snow Storage Site.
- Responded to 3,109 Service Requests with 91 per cent responses within 48 hours.
- Successfully implemented Regina’s first Snow Routes Pilot Project.
- Generated $424,000 in revenue at the Snow Storage Site.

During the 2017/2018 winter season 3,109 Service Requests were received, of which the majority required action - an inspection of the location, scheduling of an activity, providing a response, or calling the resident and discussing the issue.

Most of the calls were related to ice control and the March snow event. Of the 650 residents requesting a call back, we achieved 91 per cent contact within the 48-hour corporate timeline. Administration will continue to work at ensuring timely information is provided regarding winter maintenance activities.

Unusual Events:

Freezing Rain:
The city experienced a freezing rain event on January 9 that created slippery and hazardous conditions for both vehicular and pedestrian traffic. At this time their was very little snow cover, which lead to the ice on the sidewalks adhering for an extended period. Crews responded immediately and applied over 2,400 tonnes of sand and salt to the roads, sidewalks, and alleys over an eight day period.

Although the driving conditions on the roads after this event returned to acceptable levels within a few days, the sidewalks in the city became difficult to navigate due to the layer of ice on them. Crews salted and sanded sidewalks that are the City's responsibility to make them safe and promoted the Sandbox Program for residents to address their sidewalks.

The efforts in keeping the roads safe and passable during this event were recognized by the community, receiving 26 Service Bouquets thanking the City for their efforts. The Sandbox Program was also picked up by national media as a unique service the City provides residents.

Going forward, during similar events, Administration will look to increase communications related to the community sandboxes, as well as reviewing options to address these kinds of events through the Policy review.

March Blizzard:
During the first week of March, the community experienced the largest snowfall in over five years. Through a strategic approach, all available resources (15 City graders and all 10 contractor graders, in additional to our sanding/plow trucks) were deployed to clear roads, alleys and sidewalks over several challenging and difficult days. During this period, the City also worked to ensure City services such as transit and waste collection were not negativley impacted.

During this event, all available contractor resources were called upon to assist with snow removal activities. After two days, the contractor resources were allocated strictly to the clearing of residental roads, which continued non-stop until all roads and alleys had been plowed.

The communications approach focused on educating residents about the work being done to keep roads safe and ensure good winter driving conditions. Messages across a variety of platforms such as radio, television and social media, were used to educate and remind residents that roads

are categorized and prioritized so the busiest, most-used roads in the community are plowed before roads less travelled.

Lessons Learned & Continuous Improvement:
As a result of the two unusual events, Administration has learned that we will need to be more prepared. Going forward, Administration will be undertaking the following actions, should they be required:

- Revising our tendering process for contracted services in the winter to have more equipment available in a major event.
- Looking at continuing and expanding the Snow Routes Pilot Program to be able to clear roads quicker and more efficiently.
- Reviewing how Transit routes are prioritized and ensuring they are elevated in relation to other roads in the same prioritization category; this would be to provide service to category 2 and 3 Transit routes in advance of other roads in these categories.
- Increasing communication and resources to the Sandbox Program, should freezing rain events occur.
- Increased use of liquid salts to allow sand to better adhere to the road surface and to improve the time required for roads to become bare pavement.

A review of the Policy is scheduled to begin in 2019, to ensure it is aligned with *Design Regina: The Official Community Plan*, the *Transportation Master Plan* and community needs. This will involve both internal and external stakeholder meetings, public engagement sessions and analysis of both financial and operational impacts. The results from this review will be brought to City Council for discussion and approval in late 2019, for implementation in the 2020/2021 winter season.

RECOMMENDATION IMPLICATIONS

Financial Implications

None with respect to this report.

Environmental Implications

None with respect to this report.

Policy and/or Strategic Implications

Roadways & Transportation will continue to review the Policy, to ensure that it aligns with *Design Regina: The Official Community Plan* and the *Transportation Master Plan.*

Other Implications

None with respect to this report.

Accessibility Implications

None with respect to this report.

COMMUNICATIONS

Since the implementation of the Policy, Winter District Maintenance staff have engaged in stakeholder meetings with both internal and external groups to discuss the challenges the winter season brings and ways to better communicate and mitigate the challenges.

In addition, the annual summary report is sent to a list of interested parties that has evolved over time and both of these processes continue today.

DELEGATED AUTHORITY

As there are no recommendations to change the policy at this time, the Public Works and Infrastructure Committee has delegated authority to receive and file this report.

Respectfully submitted,

Norman Kyle, Director
Roadways & Transportation

Respectfully submitted,

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