

Staff Report

Origin

Weather conditions for the 2016/2017 winter season were considerably colder and more prolonged than usual, resulting in the need for increased response efforts, including the acquisition of bulk road salt.

Contract 5856Q was awarded to Mainroad Maintenance Products LP for salt purchases, however, expenditures have reached maximum authorized approval levels under Officer and General Manager Bylaw No. 8215 (\$500,000) and therefore Council approval is required.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

6.1. Safe and sustainable infrastructure.

Analysis

Background

Winter conditions from December, 2016 through March, 2017 have been among the worst in recent years. This resulted in response efforts significantly beyond that of typical seasons to ensure routes were proactively salted and ploughed to enhance driver and public safety. This included large quantities of salt purchases at various stages of the season. To date, 4,971 tonnes of salt has been used. This compares with less than 800 tonnes during a typical year.

Attachment 1 provides a comparison of the 2016/2017 winter season to other years, as well as summary statistics and other information relating to snow and ice operations.

Supply of Road Salt

Bulk road salt supply was secured through the regular competitive bid process under Contract 5856Q - Supply and Delivery of Bulk Road Salt. The contract was awarded to the lowest responsive and responsible bidder - Mainroad Maintenance Products on December 8, 2016.

The initial contract was approved under Officer and General Manager Bylaw 8215 for \$75,000 annually. To keep pace with inventory demands, subsequent change orders for \$200,000 and \$110,000 were required, increasing the total expenditure approval to \$385,000. Salt purchases beyond these amounts were required, with an outstanding amount of \$160,000 due to Mainroad Maintenance Products LP, for a total amount of \$545,000. This amount exceeds authorized approval levels under Bylaw 8215; therefore, subsequent Council approval is required for the contract award to Mainroad Maintenance Products LP. This is a unit price contract and therefore total expenditure amounts are estimated. It is projected that total expenditures under this contract will reach \$650,000 over the term, or an amount of \$265,000 above the current expenditure approval.

Staffing and Equipment

Costs for the overall response efforts, including labour and equipment, are currently being reviewed in relation to 2017 budget allocations. Funding requirements to address associated expenditures will be presented to Council separately as part of third quarter report.

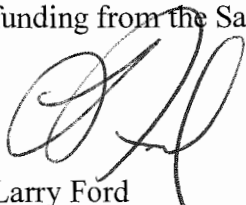
Financial Impact

Council has established the Sanding and Salting provision as a funding source to address situations of this nature. This provision has a current balance of \$629,970. It is recommended that the additional amount of \$265,000 needed for current and projected salt purchase expenditures be funded from this provision and that the 5 Year Financial Plan (2017-2021) be amended accordingly.

Conclusion

Winter conditions in 2016/2017 were among the worst in recent years. This has resulted in increased expenditures for material salt purchases above authorized approval levels under Officer and General Manager Bylaw No. 8215. Council approval is sought to award Contract 5856Q to Mainroad Maintenance Products at the units rates quoted for an estimated amount of \$650,000 for the term starting December 8, 2016 for a one-year period, with annual renewals as authorized by the Chief Administrative Officer and General Manager, for a total contract term of up to three years.

An additional amount of \$265,000 to fund salt purchase requirements is also requested, with funding from the Sanding and Salting provision.



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2016/2017 Winter Season Comparison and Statistics

Comparison

When compared with the 2015/2016 winter season where there were no snow events and 28 ice events, the severe weather during the 2016/2017 season resulted in 9 snow events and 41 ice events.

The table below highlights the considerable increase in snowfall accumulations and event days in 2016/2017 to date when compared with the average over 1981-2010:

Table 1 – Winter Weather Statistics December, 2016 Through March, 2017

	Average (1981 -2010)	2016/2017	Difference
Snowfall	34.6 cm	55.4 cm	160% of average
Days With Snowfall	7.1 days	17 days	239% of average
Rain	541 mm	382.4 mm	71% of average
Days with Rainfall	73.7 days	55 days	75% of average
Days Below 0 Degrees Celsius	48.1	64	133% of average

Operational Response Statistics

City staff, including professional drivers, equipment operators, supervisors, mechanics, welders, and labourers worked an extensive number pre-scheduled and emergency call out shifts to respond to snow and ice events. In many cases, 24-hour shift coverage was put in place, with staff working 12 hour shifts to provide maximum levels of service in salting/snow response operations. Some key statistics during the 2016/2017 event to date include:

- 14,069 lane km of first and second priority routes were ploughed;
- 658 lane km of third priority routes were ploughed;
- 4,971 tonnes of salt were used;
- 29,402 lane km of first, second and third priority routes were pre-treated with salt;
- 8,720 lane km of first and second priority routes were pre-treated with brine (brine is a liquid anti-icing agent used to pre-treat roads during dry road conditions with sub-zero temperatures forecasted).

Community Feedback

The City's proactive response was applauded by the public, with 300 responses on Facebook, Twitter and other communications media. The words of appreciation from the public were a significant indicator of Council's support and leadership commitment to service levels. The public kudos also meant a great deal to the City staff who worked tirelessly during this time.