

Winter Control Operations Update – April 2021

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Prepared by:	Brittany Hallam Linear Infrastructure Services
Recommended by:	General Manager of Growth and Infrastructure

Report Summary

This report provides information regarding winter maintenance activities for the 2020-2021 season up to and including April 30th, 2021.

Relationship to the Strategic Plan, Health Impact Assessment and Community Energy & Emissions Plan (CEEP)

This report refers to operational matters.

Financial Implications

This report provides the estimated financial results for the period ending April 30th, 2021. The estimated result for the period ending April 30th, 2021 is a surplus of approximately \$4.2 million when compared to the 2021 year-to-date budget. The actual year-to-date results may differ, as certain estimates were necessary to account for outstanding invoices.

Background

This report is intended to provide a summary of winter maintenance activities for the month of April 2021, including financial variances. It is important to note that due to normal lags in receipt of costs related to these activities, final costs for this period may vary from the information reported at this time.

The City of Greater Sudbury's winter maintenance service levels are defined in Council approved winter control service policies as well as guidelines within the Minimum Maintenance Standards (MMS), O.Reg. 239-02.

During the month of April there were no winter events that required the full deployment of City crews and contractors. Favorable weather conditions allowed for Roads Maintenance staff to focus on the spring cleanup program.

The total snow accumulation for April 2021 was, again, significantly lower than the ten-year average (2011-2020) for the same period of time, resulting in less expense than budgeted for this period. The overall expenditures for the 2021 fiscal year are projecting an estimated surplus of approximately \$4.2 million when compared to the 2021 year-to-date budget.

Weather Statistics

As shown on table 1, from January to the end of April there have been two major snow events and no freezing rain events that have required the deployment of all available City and Contractor snow plowing equipment. Furthermore, table 1 highlights the statistical information for the 2021 winter season from Environment Canada including the 10-year average (2011-2020) for snowfall. The total snow accumulation for the 2021 calendar year to date is 0.90 meters or 2.95 feet. The 10-year average for the same January to April period is 2.07 meters or 6.79 feet. This represents a 57% decrease.

Table 1 – Weather Statistics (April 2021)

Month	Snow Accumulation (cm)	10 Year Average (cm) (2011-2020)	Percentage Increase/(Decrease) Compared to 10 Year Average (%)	Snow Events	Rain/Freezing Rain Event
Jan	21.6	79.9	-73.0%	0	0
Feb	48.7	61.3	-20.6%	2	0
Mar	16.6	39.1	-57.5%	0	0
Apr	3.2	27.3	-88.3%	0	0
May					
Jun-Sep					
Oct					
Nov					
Dec					
Totals	90.1	207.6	-56.6%	2	0

Note: All weather data taken from Environment Canada website for weather station Sudbury A.

The total snow accumulation for the 2020-2021 winter season, up to and including April 2021, is 1.7 meters or 5.61 feet compared to the 10-year average of 3.2 meters or 10.39 feet. This represents a 46% decrease.

Winter Control Service Categories

1) Roadway Snow Plowing/Sanding/Salting

Includes work activities such as plowing, sanding, salting, anti-icing roads and winter stockpile management.

Status Update

For the April 2021 reporting period there was minimal snow. This resulted in less snow plowing/sanding/salting activities than the anticipated levels for the month of April.

Challenges

No significant challenges in this reporting period.

2) Snow Removal

Includes work activities such as bus stop clearing, snow removal with loaders, snow dump operation and snow bank removal in the downtown centres.

Status Update

Due to the lower than anticipated snowfall in the 2020/2021 winter season, no snow removal was required in the month of April, 2021.

Challenges

No significant challenges in this reporting period.

3) Winter Sidewalk Maintenance

Includes work activities such as sidewalk plowing and sanding.

Status Update

For the April 2021 reporting period there were no major snow events and minimal snow accumulation. No winter sidewalk maintenance activities were required.

Challenges

No significant challenges in this reporting period.

4) Roadway Snow Plowing with Graders/Loaders/4x4s

Includes work activities such as snow plowing with graders, 4x4s and loaders, municipal parking lot maintenance and snow fence maintenance.

Status Update

For the April 2021 reporting period there were no major snow events requiring full deployment of City staff and/or contractors. This resulted in minimal snow plowing with graders/loaders/4x4s activities in April, 2021.

Challenges

No significant challenges in this reporting period.

5) Winter Ditching/Spring Clean Up

Includes work activities such as winter ditch maintenance and spring clean-up with sweepers/flushers on roads and sidewalks.

Status Update

There was significant work within this category during the month of April. The sidewalk and street sweeping programs were in full force with activities being completed by both Contractor and City forces.

Challenges

No significant challenges in this reporting period.

6) Miscellaneous Winter Maintenance

Includes work activities such as property restoration (plow damage), pothole patching, winter road patrol, employee standby, equipment standby, health and safety training (snow school), fringe benefits and tool repairs.

Status Update

Pothole patching is the main activity that has been utilized under this category during this reporting period. Weather was favorable during the month of April which resulted in the requirement for less pothole patching.

As of the end of April, the City placed over 1,007 tonnes of asphalt in 2021 which would equate to 25,175 potholes filled assuming 40 kilograms of asphalt was placed into each hole. In the same period in 2020, the City placed over 1,770 tonnes of asphalt, equating to 44,250 potholes filled based on a 40 kilogram pothole size. Traditionally, the City fills approximately 55,000 potholes annually.

Challenges

No significant challenges in this reporting period.

ACR Statistics

As noted in table 2, the number of resident related issues recorded in the system during the month of April was significantly lower in all categories. Overall, there was a 48% reduction in the number of calls associated with winter control services when comparing April 2021 values to the average April values (2017-2020). The main factor in this reduction in call volume was the favorable weather, which also reduced pothole patching requirements. An early spring caused an increase in calls regarding spring clean-up for April as the sweeping program began earlier and advanced more quickly than an average year.

Table 2 – 311 Statistics

311 Related Roads Requests			
Category	Average April Call Volume (2017 -2020)	April 2021 Call Volume	Comparison to Average
Potholes	399	210	-47%
Roadway - Plowing	34	2	-94%
Roadway – Sanding/Salting	13	0	-100%
Sightlines	3	0	-100%
Cul de Sac - Plowing	17	0	-100%
Spring Clean-up	27	49	81%
Sidewalk/Stair - Plowing	4	0	-100%
Sidewalk/Stair - Sanding/Salting	4	1	-75%
Totals	501	262	-48%

Financials

The estimated financial results for the period ending April 30th, 2021 are summarized below. As depicted in table 3, April 2021 is estimating a surplus of approximately \$4.2 million when compared to the 2021 year-to-date budget. The actual year-to-date results may differ as certain estimates were necessary to account for outstanding invoices.

Table 3 – Financial Results

2021 Winter Summary As at April 30, 2021					
	Annual Budget	2021 YTD			
		Budget	Actual	Variance	% Spent YTD
Snow Plowing/Sanding/Salting	7,601,958	5,001,573	2,950,678	2,050,895	59%
Snow Removal	1,081,503	846,017	484,581	361,436	57%
Winter Sidewalk Maintenance	1,219,250	792,513	522,595	269,918	66%
Snow Plowing - Graders/Loaders/4x4s	1,294,384	929,277	360,483	568,794	39%
Winter Ditching/Spring Clean Up	2,816,050	2,230,933	1,821,255	409,678	82%
Miscellaneous Winter Maintenance	7,731,915	4,602,541	4,106,437	496,105	89%
Totals	21,745,060	14,402,854	10,246,030	4,156,824	71%

Table 4 – Miscellaneous Winter Maintenance Budget Breakdown

2021 Miscellaneous Winter Maintenance	
Expense Type	Annual Budget (millions)
Employee Benefits	1.63
Asphalt Patching	1.40
Internal Recoveries (HR, Finance, IT)	0.78
Standby (Contractor Services)	0.79
Health & Safety	0.20
Other (Roads Patrol, Emergency Response, Tool Repair, Property Restoration, etc.)	0.57
Administration & Supervision	2.35
Total	\$ 7.73

Table 5 portrays a summary of winter maintenance activities for the 2020/2021 winter season which shows an estimated under expenditure of approximately \$5 million.

In summary, favorable weather conditions in the 2020/2021 winter season would suggest that costs attributable to winter maintenance for the 2021 fiscal year are tracking well below budget allocations.

Table 5 – 2020/2021 Winter Season Financial Summary

2020/2021 Winter Season Summary April, 2021			
	Season Budget	Season Actual	Variance
Snow Plowing/Sanding/Salting	7,667,039	5,181,682	2,485,357
Snow Removal	1,025,742	538,328	487,414
Winter Sidewalk Maintenance	1,186,061	840,478	345,583
Snow Plowing - Graders/Loaders/4x4s	1,191,403	611,710	579,693
Winter Ditching/Spring Clean Up	2,264,943	1,914,406	350,537
Miscellaneous Winter Maintenance	6,836,027	6,034,541	801,486
Totals	20,171,215	15,121,145	5,050,070