

Winter Control Update – November and December 2022

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

Report Summary

This presentation and report provides an overview of winter maintenance activities for the 2022-2023 winter control season up to and including the month of December 2022.

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

This report refers to operational matters and has no direct connection to the Community Energy & Emissions Plan.

Financial Implications

This report provides the estimated financial results of the 2022 winter roads operations for the City's fiscal year between January and December 2022. As depicted in Table 2 below, the estimated result for 2022 is a deficit of approximately \$2,023,000. The actual year end results may differ from these estimates as certain estimates were necessary to account for outstanding invoices. The actual surplus/deficit will be communicated as part of the 2022 Year End Variance Report that will be presented in Q2 2023. The winter control surplus/deficit will form part of the year-end position.

Background

This report is intended to provide a summary of winter maintenance activities for the month of December 2022, 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 December, there were three (3) winter events that required the full deployment of City crews and contractors.

This report provides the estimated financial results for the period ending December 31, 2022. The estimated result for the period ending December 31, 2022 is a deficit of approximately \$2.023 million when compared to the 2022 year-to-date budget. The actual year-to-date results may differ, as certain estimates were necessary to account for outstanding invoices.

Weather Statistics

As shown on Table 1, from January to the end of December there have been eight (8) major snow events and two (2) freezing rain events that have required full deployment of all available City and Contractor snow plowing equipment. In comparison, there were three (3) major snow events and one (1) freezing rain event that required the full deployment of all available City and Contractor snow plowing equipment in 2021. Table 1 highlights the statistical information for the 2022 winter season from Environment Canada including the 10-year average (2012-2021) for snowfall. The total snow accumulation for the 2022 calendar year to date is 2.97 meters or 9.74 feet. The 10-year average for the same period is 3.13 meters or 10.3 feet.

Table 1 – Weather Statistics (January through December 2022)

Month	Snow Accumulation (cm)	10 Year Average (cm) (2012-2021)	Percentage Increase/(Decrease) Compared to 10-Year Average	Snow Events	Rain/Freezing Rain Events
Jan	62.0	75.7	-18.1%	2	0
Feb	81.4	63.0	29.2%	2	0
Mar	43.0	35.4	21.6%	1	2
Apr	14.5	25.4	-42.9%	0	0
May	-	2.8	-100.0%	0	0
Jun-Sep	-	-	0.0%	0	0
Oct	2.8	6.3	-55.4%	0	0
Nov	17.8	40.6	-56.1%	0	0
Dec	75.6	64.8	16.7%	3	0
Totals	297.1	313.9	-5.4%	8	2

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

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 December 2022 reporting period there were three (3) snow events requiring the full deployment of City staff and Contractors mixed with on-going precipitation and above average snow accumulation. This resulted in approximately 23% more snow plowing/sanding/salting activities than the anticipated levels for December.

Challenges

Temperature fluctuations mixed with snow accumulations that were 17% higher than average saw an increased need for snow plowing, sanding, and salting activities.

Snow event mixed with intermittent snowfall from December 24th to the 28th with minimal internal resources available at straight time due to the holiday and a requirement for increased contractor response to supplement internal resources.

2) Snow Removal

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

Status Update

There was minimal snow removal completed in the month of December.

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 December 2022 reporting period there were three (3) weather events requiring the full deployment of City staff with mild periods throughout the month providing a reduction in snow pack. This resulted in approximately 13% less winter sidewalk maintenance activities than the anticipated levels for December.

Challenges

Snow event mixed with intermittent snowfall from December 24th to the 28th with minimal internal resources available at straight time due to the holiday and no contractor to supplement the work, saw service levels in some areas not being met.

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 December 2022 reporting period there were three (3) weather events, requiring full deployment of City staff and/or Contractors. This resulted in snow plowing activities that were 31% lower than the anticipated levels for December.

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

Winter ditching was undertaken in the month of December in order to mitigate drainage concerns which developed from above average snow accumulation and a significant number of mild periods. This resulted in winter ditching activities which were 46% higher than the anticipated levels for December.

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 and contractor standby are the main activities that have been utilized under this category during the December 2022 reporting period.

Challenges

No significant challenges in this reporting period.

Financials

The estimated financial results for the period ending December 31, 2022 are summarized below. As depicted in Table 2, 2022 is estimating a deficit of approximately \$2,023,000 when compared to the 2022 year-to-date budget. The actual year to date may differ as certain estimates were necessary to account for outstanding invoices. The winter control surplus/deficit will form part of the year-end position.

Table 2 – Financial Results

2022 Winter Summary As at December 31, 2022					
	Annual Budget	2022 YTD			
		Budget	Actual	Variance	% Spent YTD
Snow Plowing/Sanding/Salting	7,732,820	7,732,820	9,601,390	(1,868,570)	124%
Snow Removal	1,125,503	1,125,503	720,552	404,951	64%
Winter Sidewalk Maintenance	1,259,960	1,259,960	1,123,629	136,331	89%
Snow Plowing - Graders/Loaders/4x4s	1,332,782	1,332,782	939,729	393,053	71%
Winter Ditching/Spring Clean Up	2,883,320	2,883,320	3,316,570	(433,250)	115%
Miscellaneous Winter Maintenance	8,051,823	8,051,823	8,707,476	(655,653)	108%
Totals	22,386,208	22,386,208	24,409,346	(2,023,138)	109%

Table 3 – Miscellaneous Winter Maintenance Budget Breakdown

2022 Miscellaneous Winter Maintenance	
Expense Type	Annual Budget (millions)
Employee Benefits	1.72
Asphalt Patching	1.43
Internal Recoveries	0.90
Standby (Contractor Services)	0.79
Health & Safety	0.25
Other (Roads Patrol, Emergency Response, Tool Repair, Property Restoration, etc.)	0.49
Administration & Supervision	2.47
Total	\$ 8.05

Table 4 portrays a summary of winter maintenance activities for the 2022/2023 winter season which shows an estimated over expenditure of approximately \$206,000.

Table 4 – 2022/2023 Winter Season Financial Summary

2022/2023 Winter Season Summary as at December 31, 2022			
	Season Budget	Season Actual	Variance
Snow Plowing/Sanding/Salting	2,645,294	3,250,621	(605,327)
Snow Removal	248,140	16,881	231,259
Winter Sidewalk Maintenance	440,986	382,839	58,147
Snow Plowing - Graders/Loaders/4x4s	376,252	260,224	116,028
Winter Ditching/Spring Clean Up	42,973	62,775	(19,802)
Miscellaneous Winter Maintenance	2,898,454	2,884,760	13,694
Totals	6,652,099	6,858,100	(206,001)

In summary, above average snow accumulation, on-going precipitation, and fluctuating weather conditions in 2022 have caused costs attributable to winter maintenance for the 2022 fiscal year to track approximately 9% above budget allocations.