

Winter Control Update – April 2022

Presented To:	Operations Committee
Meeting Date:	June 20, 2022
Type:	Correspondence for Information Only
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Report Summary

This report provides information regarding winter maintenance activities for the 2021-2022 season up to and including April 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 Health Impact Assessment and Community Energy & Emissions Plan.

Financial Implications

This report provides the estimated financial results for the period ending April 30, 2022. The estimated result for April 2022 is a deficit of approximately \$1,200,000 when compared to the 2022 year-to-date budget. The actual year-to-date result may differ from these estimates 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 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 April, there were no winter events that required the full deployment of City crews and contractors.

This report provides the estimated financial results for the period ending April 30, 2022. The estimated result for the period ending April 30, 2022 is a deficit of approximately \$1,200,000 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

In April, a majority of days saw precipitation and low temperatures which were below 0°C. Table 1 highlights the statistical information for the 2021/2022 winter season from Environment Canada including the 10-year average (2011-2020) for snowfall. The total snow accumulation in April of 2022 was 47% lower than the 10-year average for the same period. The total snow accumulation for the 2021/2022 winter season is 2.9 meters or 9.5 feet. The 10-year average for the same period is 3.2 meters or 10.4 feet. This represents a 9% decrease.

Table 1 – Weather Statistics (April 2022)

Month	Snow Accumulation	10 Year Average (cm) (2011-2020)	Percentage Increase/(Decrease) Compared to 10-Year Average	Snow Events	Rain/Freezing Rain Events
June-Sept	-	-	0.0%	0	0
Oct	-	6.4	-100.0%	0	0
Nov	22.8	39	-41.5%	0	0
Dec	64.7	63.8	1.4%	1	1
Jan	62	79.9	-22.4%	2	0
Feb	81.4	61.3	32.8%	2	0
March	43	39.1	10.0%	1	2
April	14.5	27.3	-46.9%	0	0
May					
Totals	288.4	316.8	-9.0%	6	3

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 April 2022 reporting period there was on-going precipitation and multiple periods of freezing temperatures. This resulted in approximately 24% more snow plowing/sanding/salting activities than the anticipated levels for April.

Challenges

Over 53% of the days in April saw precipitation with temperatures dropping below 0°C on a majority of these days. This resulted in an increased need for snow plowing, sanding, and salting activities.

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

As anticipated, no snow removal was required in the month of April, 2022.

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 2022 reporting period there was on-going precipitation and multiple periods of freezing temperatures. This resulted in a requirement for some winter sidewalk maintenance in April which was not anticipated.

Challenges

Over 53% of the days in April saw precipitation with temperatures dropping below 0°C on a majority of these days. This resulted in an increased need for winter sidewalk maintenance.

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 2022 reporting period there was on-going precipitation and multiple periods of freezing temperatures causing some ice rutting on roads. This resulted in an increased need for snow plowing activities with graders, loaders, and 4x4s in April.

Challenges

Over 53% of the days in April saw precipitation with temperatures dropping below 0°C on a majority of these days. This resulted in an increased need for ice blading as well as snow plowing with graders, loaders, and 4x4s.

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

With favourable weather and low total snow accumulations allowing for an accelerated spring melt, increased catchbasin clearing and winter ditching were required to promote drainage in April. As well, sweeping activities were allowed to start earlier than anticipated and continued through the month of April. This resulted in 30% more activities than the anticipated levels for April.

Challenges

Increased precipitation with prolonged periods of melt as well as below zero temperatures at night created a need for increased activities to promote drainage.

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 was utilized under this category during the April 2022 reporting period. These activities were 40% more than the anticipated levels for April.

Challenges

Above average precipitation and increased freeze/thaw cycles saw an increased deterioration of roadways in the 2022 winter season requiring increased pothole patching.

Financials

The estimated financial results for the period ending April 30, 2022 are summarized below. As depicted in Table 2, as of April 2022 there is an estimated deficit of approximately \$1,200,000 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 April 30, 2022					
	Annual Budget	2022 YTD			
		Budget	Actual	Variance	% Spent YTD
Snow Plowing/Sanding/Salting	7,732,820	5,087,526	6,264,305	(1,176,779)	123%
Snow Removal	1,125,503	876,308	719,233	157,075	82%
Winter Sidewalk Maintenance	1,259,960	818,974	802,207	16,767	98%
Snow Plowing - Graders/Loaders/4x4s	1,332,782	956,438	654,292	302,146	68%
Winter Ditching/Spring Clean Up	2,883,320	2,282,508	2,339,530	(57,022)	102%
Miscellaneous Winter Maintenance	8,051,823	4,786,619	5,230,471	(443,852)	109%
Totals	22,386,208	14,808,373	16,010,039	(1,201,666)	108%

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 2021/2022 winter season which shows

an estimated over expenditure of approximately \$1,100,000.

Table 4 – 2021/2022 Winter Season Financial Summary

2021/2022 Winter Season Summary as at April, 2022			
	Season Budget	Season Actual	Variance
Snow Plowing/Sanding/Salting	7,684,278	9,628,536	(1,944,258)
Snow Removal	1,108,706	723,721	384,985
Winter Sidewalk Maintenance	1,245,711	1,208,162	37,549
Snow Plowing - Graders/Loaders/4x4s	1,320,012	898,271	421,741
Winter Ditching/Spring Clean Up	2,324,684	2,320,991	3,693
Miscellaneous Winter Maintenance	7,084,408	7,055,804	28,604
Totals	20,767,799	21,835,485	(1,067,686)

In summary, above average precipitation and increased freeze/thaw cycles throughout the 2021/2022 winter season has caused costs attributable to winter maintenance for the 2022 fiscal year to track above budget allocations.