

Winter Control Update – April 2023

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

Report Summary

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

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 for the period ending April 30, 2023. The estimated result for April 2023 is a deficit of approximately \$1,937,000 when compared to the 2023 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 2023, 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 was one (1) snow event which was declared a Significant Weather Event and one (1) freezing rain event requiring the full deployment of City staff and contractors.

This report provides the estimated financial results for the period ending April 30, 2023. The estimated result for the period ending April 30, 2023 is a deficit of approximately \$1,937,000 when compared to the 2023 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, in April there was one (1) snow event and one (1) freezing rain event which required the full deployment of all available City and Contractor snow plowing equipment. The April 1st snow event was declared a Significant Weather Event due to heavy, rapid snowfall with high winds causing drifting across roadways. As of the end of April 2023 there have been thirteen (13) snow events and two (2) freezing rain events requiring the full deployment of all available City and Contractor snow plowing equipment in the winter of 2022/2023. In comparison, as of the end of April, the 2021/2022 winter season saw six (6) snow events and three (3) freezing rain events requiring a full deployment.

Table 1 highlights the statistical information for the 2022/2023 winter season from Environment Canada including the 10-year average (2012-2021) for snowfall. The total snow accumulation in April of 2023 was 82% higher than the 10-year average for the same period. The total snow accumulation for the 2022/2023 winter season was 17% higher than the 10-year average at 3.6 meters or 11.9 feet compared to an average of 3.1 meters or 10.2 feet.

Table 1 – Weather Statistics (April 2023)

Month	Snow Accumulation	10 Year Average (cm) (2012-2021)	Percentage Increase/(Decrease) Compared to 10-Year Average	Snow Events	Rain/Freezing Rain Events
June-Sept	-	-	0.0%	0	0
Oct	2.8	6.3	-100.0%	0	0
Nov	17.8	40.6	-56.2%	0	0
Dec	75.6	64.8	16.7%	3	0
Jan	89.5	75.7	18.2%	3	0
Feb	75.7	63	20.2%	5	1
March	55.6	35.4	57.1%	1	0
April	46.2	25.4	81.9%	1	1
May					
Totals	363.2	311.2	16.7%	13	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 April 2023 reporting period there was one (1) snow event which was declared a Significant Weather Event and one (1) freezing rain event which required the full deployment of City staff and contractors. This resulted in an approximate over expenditure of \$559,000 in snow plowing/sanding/salting activities for April.

Challenges

Rapid, heavy snowfall and high winds causing drifting across roadways triggered a Significant Weather Event on April 1st. A second general call out was triggered on April 5th. Temperatures consistently fluctuated above and below zero for the first ten days of April.

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

Due to a delay in receipt of invoicing for March, \$135,000 is shown to be spent on snow removal activities in the month of April. No snow removal activities occurred in the month of April.

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 2023 reporting period there was one (1) snow event which was declared a Significant Weather Event and one (1) freezing rain event which required the full deployment of City staff and contractors. This resulted in an approximate over expenditure of \$194,000 in winter sidewalk maintenance activities for April.

Challenges

Rapid, heavy snowfall and high winds causing drifting across roadways triggered a Significant Weather Event on April 1st. A second general call out was triggered on April 5th. Temperatures consistently fluctuated above and below zero for the first ten days of April. As reflected in the budget, typically in April no sidewalk plowing activities are required.

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 2023 reporting period there was one (1) snow event which was declared a Significant Weather Event and one (1) freezing rain event which required the full deployment of City staff and contractors. This resulted in an approximate over expenditure of \$203,000 in roadway snow plowing with graders/loaders/4x4s activities for April.

Challenges

Rapid, heavy snowfall and high winds causing drifting across roadways triggered a Significant Weather Event on April 1st. A second general call out was triggered on April 5th. Temperatures consistently fluctuated above and below zero for the first ten days of April. As reflected in the budget, typically in April minimal roadway plowing with graders/loaders/4x4s activities are required.

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

Mild temperatures and increased snow removal activities throughout the season caused a decrease in requirement for winter ditching activities. This resulted in 4% less winter ditching activities than the anticipated levels for April.

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 the April 2023 reporting period. This activity was 32% more than the anticipated levels for April.

Challenges

On-going rain throughout the latter half of April mixed with frequent freeze-thaw-cycles throughout the month increased the requirement for pothole patching.

Financials

The estimated financial results for the period ending April 30, 2023 are summarized below. As depicted in Table 2, April 2023 is estimating a deficit of approximately \$1,937,000 when compared to the 2023 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

2023 Winter Summary As at April 30, 2023					
	Annual Budget	2023 YTD			
		Budget	Actual	Variance	% Spent YTD
Snow Plowing/Sanding/Salting	8,033,170	5,287,652	6,795,818	(1,508,167)	129%
Snow Removal	1,188,134	922,216	1,679,864	(757,648)	182%
Winter Sidewalk Maintenance	1,334,060	867,139	940,899	(73,760)	109%
Snow Plowing - Graders/Loaders/4x4s	1,482,340	1,061,540	993,445	68,094	94%
Winter Ditching/Spring Clean Up	3,113,406	2,455,734	1,732,914	722,821	71%
Miscellaneous Winter Maintenance	8,610,451	5,119,633	5,508,233	(388,600)	108%
Totals	23,761,561	15,713,913	17,651,173	(1,937,260)	112%

Table 3 – Miscellaneous Winter Maintenance Budget Breakdown

2023 Miscellaneous Winter Maintenance	
Expense Type	Annual Budget (millions)
Employee Benefits	1.83
Asphalt Patching	1.53
Internal Recoveries	1.21
Standby (Contractor Services)	0.87
Health & Safety	0.22
Other (Roads Patrol, Emergency Response, Tool Repair, Property Restoration, etc.)	0.52
Administration & Supervision	2.63
Total	\$ 8.81

Table 4 portrays a summary of winter maintenance activities for the 2022/2023 winter season which shows an estimated over expenditure of approximately \$2,143,000.

Table 4 – 2022/2023 Winter Season Financial Summary

2022/2023 Winter Season Summary as at April, 2023			
	Season Budget	Season Actual	Variance
Snow Plowing/Sanding/Salting	7,932,946	10,046,439	(2,113,493)
Snow Removal	1,170,356	1,696,745	(526,389)
Winter Sidewalk Maintenance	1,308,125	1,323,738	(15,613)
Snow Plowing - Graders/Loaders/4x4s	1,437,792	1,253,669	184,123
Winter Ditching/Spring Clean Up	2,498,707	1,795,689	703,018
Miscellaneous Winter Maintenance	8,018,087	8,392,993	(374,906)
Totals	22,366,013	24,509,273	(2,143,260)

In summary, weather conditions have caused costs attributable to winter maintenance for the 2023 fiscal year to track above budget allocations.