

Winter Control Updates – March and April 2024

Presented To:	Operations Committee
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Recommended by:	General Manager of Growth and Infrastructure

Report Summary

This report and presentation provides an overview of winter maintenance activities for the 2023/2024 winter control season up to and including the month of April 2024 and seeks direction on the winter sidewalk maintenance pilot project for the 2024-2025 winter control season.

Resolution

THAT the City of Greater Sudbury extend the winter sidewalk maintenance pilot project for the 2024-2025 winter season which will maintain the three additional seasonal sidewalk plow operators who will be dedicated to performing winter sidewalk maintenance continually throughout the week at a total cost of \$285,000;

AND THAT the cost to fund the pilot project in the amount of \$95,000 for 2024 and \$190,000 for 2025 be funded from the Winter Control Reserve Fund, as outlined in the report entitled “Winter Control Updates – March and April 2024”, from the General Manager of Growth and Infrastructure, presented at the Operations Committee meeting of June 17, 2024.

Relationship to the Strategic Plan, Health Impact Assessment and Climate Action Plans

A pillar of the Strategic Plan 2019–2027 is the Asset Management and Service Excellence strategic initiative. One of the key principles of this initiative is to continually look for innovative and cost-effective approaches for the operational services staff deliver each day. Utilizing this continuous improvement approach ensures Linear Infrastructure Services provides efficient, high quality operational activities that meet the needs of residents and supports how they work, live, and play in Greater Sudbury. As well, accessible winter sidewalks will encourage more residents to utilize active transportation rather than use motorized vehicles to get to their destination, which is consistent with the objectives of Greater Sudbury’s Community Energy and Emissions Plan (CEEP).

Financial Implications

This report provides the estimated financial results for the period ending April 30, 2024. The estimated result for April 2024 is a surplus of approximately \$2,640,000 when compared to the 2024 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.

If approved, the cost of the pilot project in the amount of \$95,000 for 2024 and \$190,000 for 2025 will be funded from the Winter Control Reserve Fund.

Background

This report is intended to provide a summary of winter maintenance activities for the months of March and April 2024, 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 months of March and April, there were no winter events that required the full deployment of City crews and subcontractors.

This report provides the estimated financial results for the period ending April 30, 2024. The estimated result for the period ending April 30, 2024, is a surplus of approximately \$2,640,000 when compared to the 2024 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 in Figure 1, during the months of March and April there were no major winter events which required the deployment of all available City and contractor snow plowing equipment. Temperatures throughout the two months were consistently above zero during the day and below freezing overnight which led to repeated freeze thaw cycles throughout the two months. As of the end of April 2024, there have been five winter events requiring the full deployment of all available City and Contractor snow plowing equipment in the winter control season of 2023/2024.

Figure 1 also highlights the statistical information for the 2023/2024 winter season from Environment Canada, including the 10-year average (2013-2022) for snowfall. The total snow accumulation for the 2023/2024 winter season is approximately 30 per cent less than the 10-year average of 3.1 metres or 10.1 feet.

Figure 1 - Weather Statistics (June 2023 through May 2024)

Month	Snow Accumulation (cm)	10 Year Average (cm) (2013-2022)	Percentage Increase/(Decrease) Compared to 10-Year Average	Snow Events	Rain/Freezing Rain Events
Jun-Sep	-	-	0.0%	0	0
Oct	8.8	6.0	47.7%	0	0
Nov	26.3	40.3	-34.8%	1	0
Dec	16.3	65.1	-75.0%	0	0
Jan	74.9	72.1	3.9%	2	0
Feb	33.1	66.7	-50.4%	2	1
Mar	19.3	35.1	-45.0%	0	0
Apr	37.7	23.6	59.5%	0	0
May					
Totals	216.4	309.0	-30.0%	5	1

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 March and April 2024 reporting period, there were no winter events that required the full deployment of City staff and contractors and minimal snowfall throughout the two months. This resulted in approximately 30 per cent less snow plowing/sanding/salting activities than the anticipated levels for the two months.

Challenges

There were no significant challenges with roadway snow plowing/sanding/salting during the reporting period.

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

During the March and April 2024 reporting period there was approximately 88 per cent less snow removal completed due to significantly below seasonal amounts of snow as well as a number of days of above freezing temperatures and rainfall which helped reduce the size of snowbanks throughout the community.

Challenges

There were no significant challenges with snow removal during the reporting period.

3) Winter Sidewalk Maintenance

Includes work activities such as sidewalk plowing and sanding.

Status Update

As previously noted, there were no winter events that required the full deployment of City staff and contractors during the months of March and April 2024. In addition, there was minimal snowfall throughout the months and many days with above freezing temperatures. This has resulted in 36 per cent less winter sidewalk maintenance activities than the anticipated levels for the two months combined. The enhanced sidewalk maintenance pilot project continued during these months with spot sidewalk plowing and sanding completed as needed throughout the community.

Challenges

There were no significant challenges with winter sidewalk maintenance during the 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 March and April 2024 reporting period, there were no winter events that required the full deployment of City staff and contractors. This resulted in snow plowing activities that were 77 per cent less than the anticipated levels for the two months combined.

Challenges

There were no significant challenges with this activity during 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

For the March and April 2024 reporting period, minimal work was done related to winter ditch maintenance, however, street sweeping activities commenced on April 8, 2024. During the month of April, City crews continuously swept area roads utilizing three eight-hour shifts during weekdays. In addition, contract resources supplemented City crews and swept throughout the community. In total, 55 pieces of equipment were deployed to sweep roads, sidewalks and cycling infrastructure throughout the community. The costs incurred during this reporting period were three per cent less than the anticipated levels for the month.

Challenges

There were no significant challenges with this activity during 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, 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 March and April 2024 reporting period. This resulted in 9 per cent more miscellaneous winter maintenance activities than the anticipated levels for the season. This is most likely due to the frequent freeze thaw cycles experienced throughout the two months which increase the need for pothole patching.

Challenges

There were no significant challenges with this activity during this reporting period.

Financials

The estimated financial results for the period ending April 30, 2024, are summarized below. As shown in Figure 2, April 2024 is estimating a surplus of approximately \$2,640,000 when compared to the 2024 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. Figure 3 provides a breakdown of the budgeted expenses included within Miscellaneous Winter Maintenance.

Figure 2 - Financial Results

2024 Winter Summary					
As of April 30, 2024					
	Annual Budget	2024 YTD			% Spent YTD
		Budget	Actual	Variance	
Snow Plowing/Sanding/Salting	8,068,135	5,310,296	4,548,141	762,154	86%
Snow Removal	1,281,383	990,024	535,899	454,124	54%
Winter Sidewalk Maintenance	1,368,470	946,508	726,180	220,328	77%
Snow Plowing - Graders/Loaders/4x4s	1,866,543	1,329,787	447,217	882,569	34%
Winter Ditching/Spring Clean Up	3,751,462	2,903,200	2,449,517	453,682	84%
Miscellaneous Winter Maintenance	8,771,523	5,200,856	5,333,210	(132,354)	103%
Total	25,107,516	16,680,669	14,040,165	2,640,505	84%

Figure 3 – Miscellaneous Winter Maintenance Budget Breakdown

2024 Miscellaneous Winter Maintenance	
Expense Type	Annual Budget (millions)
Employee Benefits	1.98
Asphalt Patching	1.63
Internal Recoveries	1.01
Standby (Contractor Services)	0.87
Health & Safety	0.23
Other (Emergency Response, Tool Repair, Property Restoration, etc.)	0.28
Administration & Supervision	2.79
Total	\$ 8.77

Figure 4 portrays a summary of winter maintenance activities for the 2023/2024 winter season which shows an estimated under expenditure of approximately \$4,937,000.

Figure 4 – 2023/2024 Winter Season Financial Summary

2023/2024 Winter Season Summary			
As of April 30, 2024			
	Season Budget	Season Actual	Variance
Snow Plowing/Sanding/Salting	8,051,827	6,456,998	1,594,829
Snow Removal	1,252,651	661,303	591,348
Winter Sidewalk Maintenance	1,413,429	1,067,956	345,473
Snow Plowing - Graders/Loaders/4x4s	1,748,920	539,678	1,209,242
Winter Ditching/Spring Clean Up	2,948,142	2,531,757	416,385
Miscellaneous Winter Maintenance	8,427,163	7,647,788	779,375
Total	23,842,132	18,905,480	4,936,652

In summary, weather conditions have caused costs attributable to winter maintenance for the 2024 fiscal year to track approximately 16 per cent under budget allocations.

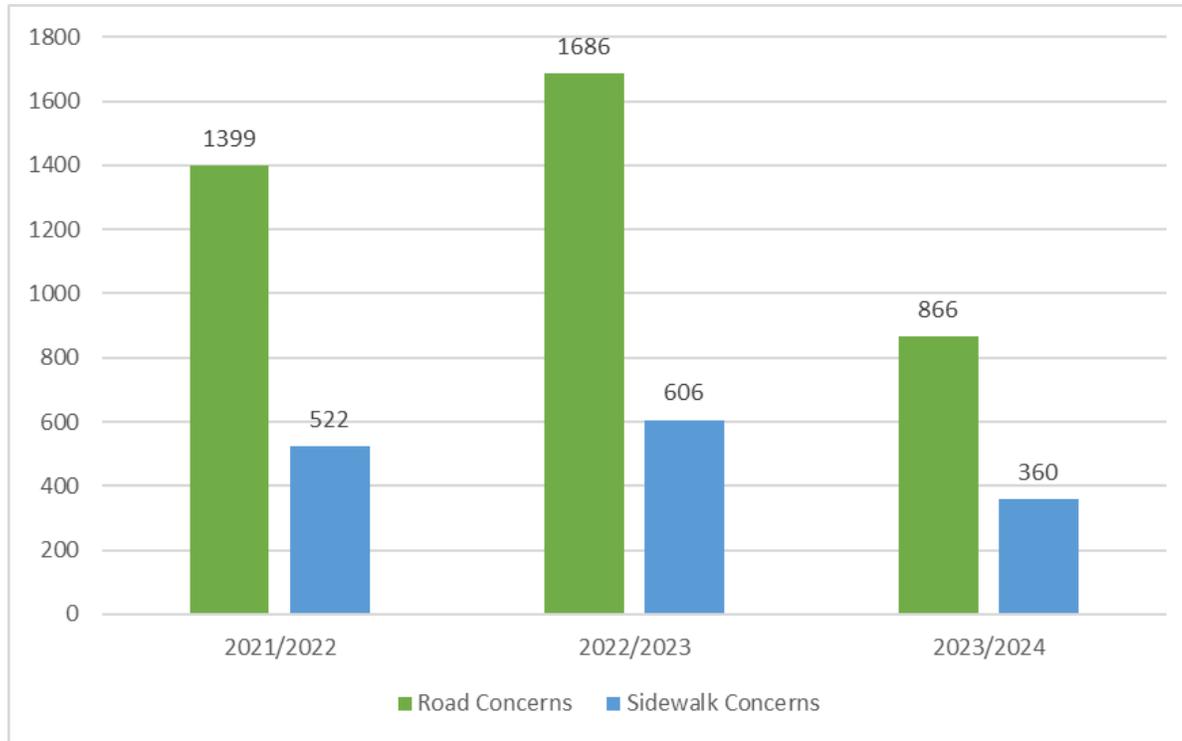
Winter Sidewalk Maintenance Pilot Project Evaluation

At the September 18, 2023, Operations Committee meeting, a pilot project to enhance winter sidewalk maintenance was approved for the 2023/2024 winter season. This pilot project utilized three additional seasonal employees to maintain sidewalks throughout the community on a rotational basis during business days. The pilot project was estimated to cost an additional \$277,000 for the 2023/2024 winter season and was to be funded from the Winter Control Reserve Fund.

As previously noted in the report, the 2023/2024 winter season had 30 per cent less snowfall than the 10-year average and above freezing temperatures throughout the season. These factors led to reduced or no snowpack on sidewalks for long periods of time this season. These weather conditions led to the pilot project employees being deployed 64 of the 125 business days throughout the winter season.

A review of 311 call data shown in Figure 5 below, shows the total number of calls received with concerns related to winter maintenance of a road or a sidewalk. When compared to the 2022/2023 winter season, there was a 41 per cent reduction in sidewalk related concerns, while there was a 49 per cent reduction in road related concerns. While some of the sidewalk concerns may have been reduced due to the pilot project, the data shows there was a greater increase in the reduction of concerns related to the winter maintenance of roads and no service enhancements were made to support this decrease. The most likely cause of the reduction in concerns received is the more mild and dry weather conditions experienced this winter season.

Figure 5 – 311 Winter Season Call Data



Based on the weather conditions experienced during the 2023/2024 winter season, it is difficult to determine the effectiveness of the pilot project. Extending the pilot project for an additional winter season would allow staff to determine its effectiveness during more typical weather conditions.

If approved for the 2024/2025 winter season, the cost of the pilot project would incrementally increase to \$285,000 and outlined in Figure 6 below with funding being provided from the Winter Control Reserve Fund.

Figure 6- 2024/2025 Estimated Costs

Item	2024	2025	Total
Labour	\$ 37,000	\$ 68,000	\$ 105,000
Winter Sand Application	\$ 3,000	\$ 6,000	\$ 9,000
Street Sweeping	\$ -	\$ 11,000	\$ 11,000
Fleet Maintenance & Fuel	\$ 55,000	\$ 105,000	\$ 160,000
Total Incremental Costs	\$ 95,000	\$ 190,000	\$ 285,000

Next Steps

If approved, the pilot project will be implemented in the 2024/2025 winter control season. Staff will review the performance of the pilot project throughout the season as well as analyze citizen feedback in order to provide a final recommendation to the Operations Committee in Q3 of 2025.

Resources Cited

Operations Committee Report dated September 18, 2023, titled “Winter Sidewalk Maintenance Service Standards Options for Implementation During the 2023-2024 Winter Season”
<https://pub-greatersudbury.escribemeetings.com/filestream.ashx?DocumentId=50956>