

Winter Control Update - December 2020

Background

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. The first major snow event brought a significant amount of snow. Milder temperatures proceeded the event causing melting periods. As well, there was a rain event at the end of the month, both of which caused a slight increase in maintenance activities for winter ditching/drain opening.

The total snow accumulation for December was less than average, resulting in a \$893,000 under expenditure. The overall expenditures for the fiscal year 2020 are now lower than projected, estimated at approximately \$466,000 under budget.

Weather Statistics

As shown on table 1, from January to the end of December there have been nine (9) major snow events and one (1) freezing rain event that have required full deployment of all available City and Contractor snow plowing equipment. Furthermore, table 1 highlights the statistical information for the 2020 winter season from Environment Canada including the 10-year average (2011-2020) for snowfall. The total snow accumulation for the 2020 calendar year to date is 2.85 meters or 9.35 feet. The 10-year average for the same period is 3.2 meters or 10.5 feet. This represents an 11% decrease.

Table 1 – Weather Statistics (January through December 2020)

Month	Snow Accumulation (cm)	10 Year Average (cm) (2011-2020)	Percentage Increase/(Decrease) Compared to 10 Year Average (%)	Major Snow Events	Freezing Rain Event
Jan	70.8	79.9	-11.4%	2	1
Feb	78.2	61.3	27.5%	2	0
Mar	30.8	39.1	-21.1%	1	0
Apr	7.9	27.3	-71.1%	0	0
May	16.4	2.8	477.5%	1	0
Jun-Sep	-	-	0.0%	-	-
Oct	8.0	6.4	25.8%	-	-
Nov	15.6	39.0	-60.0%	0	0
Dec	57.2	63.8	-10.4%	3	0
Totals	284.9	319.6	-10.9%	9	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 December 2020 reporting period there were three (3) major snow events, requiring full deployment of City staff and/or Contractors . This resulted in snow plowing/sanding/salting activities in alignment with the anticipated levels for December.

Challenges

A major snow event on Christmas Day posed some challenges in obtaining the appropriate level of staffing to meet service level standards.

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

Snow removal requirements were minimal through the month of December.

In 2019 Council approved an increase in the snow removal budget for the downtown core. Starting in the 2019/2020 winter season, contract services were utilized to remove portions, or “cut-outs” of the snowbanks around high traffic parking stations in the downtown core as well as full snowbank removal along the on-street parking on the south side of Elm St. This was done in consultation with the Downtown BIA to enhance snowbank removal services. This activity was completed throughout the season on an “as needed” basis, approximately one occurrence per month, coordinated with the downtown full snow removal efforts. The snow removal “cut-outs” were successful and will continue through the 2020/2021 winter season. This activity was completed in 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 2020 reporting period there were three (3) major snow events, requiring full deployment of City staff and/or Contractors. This resulted in winter sidewalk maintenance activities in alignment with the anticipated levels for December.

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 December 2020 reporting period there were three (3) major snow events, requiring full deployment of City staff and/or Contractors. This resulted in snow plowing activities in alignment with 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

For the December 2020 reporting period there were three (3) major snow events. Throughout the month, there were temperature fluctuations above and below freezing, causing melting periods after the first major snow event as well as a rain event at the end of the month. This resulted in a slight increase in winter ditching activities for this period.

Challenges

A rain event is unusual for the month of December. This required increased focus on opening up ditches/drainage to reduce ponding on roadways.

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 this reporting period.

Challenges

No significant challenges in this reporting period.

Financials

This report provides the estimated financial results of the 2020 winter roads operations for the City's fiscal year between January and December 2020. As depicted in Table 2 below, the estimated result for 2020 is a surplus of approximately \$466,000. The actual year end result 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 2020 Operating Budget Variance Report that will be presented in Q2 2021. As per the Reserve and Reserve Fund policy, any annual over/under expenditures in winter roads operations may be funded/contributed towards the Roads Winter Control Reserve Fund.

Table 2 – Financial Results

2020 Winter Summary As at December 31, 2020					
	Annual Budget	2020 YTD			
		Budget	Actual	Variance	% Change YTD
Snow Plowing/Sanding/Salting	7,823,358	7,823,358	6,511,782	1,311,576	83%
Snow Removal	871,321	871,321	1,235,036	(363,714)	142%
Winter Sidewalk Maintenance	1,124,424	1,124,424	1,015,440	108,984	90%
Snow Plowing - Graders/Loaders/4x4s	933,969	933,969	1,182,990	(249,021)	127%
Winter Ditching/Spring Clean Up	2,279,958	2,279,958	2,832,937	(552,979)	124%
Miscellaneous Winter Maintenance	7,350,517	7,350,517	7,138,630	211,887	97%
Totals	20,383,548	20,383,548	19,916,815	466,732	98%

Table 3 – Miscellaneous Winter Maintenance Budget Breakdown

2020 Miscellaneous Winter Maintenance	
Expense Type	Annual Budget (millions \$)
Employee Benefits	1.57
Asphalt Patching	1.36
Internal Recoveries (HR, Finance, IT)	0.73
Standby (Contractor Services)	0.73
Health & Safety	0.17
Other (Road Patrol, Emergency Response, Tool Repair, Property Restoration, etc.)	0.58
Administration & Supervision	2.21
Total	\$ 7.35

Table 4 – 2020/2021 Winter Season Financial Summary

2020/2021 Winter Season Summary December, 2020			
	Season Budget	Season Actual	Variance
Snow Plowing/Sanding/Salting	2,665,466	2,231,004	434,462
Snow Removal	179,725	53,747	125,978
Winter Sidewalk Maintenance	393,548	317,883	75,665
Snow Plowing - Graders/Loaders/4x4s	262,126	251,227	10,899
Winter Ditching/Spring Clean Up	34,010	93,151	(59,141)
Miscellaneous Winter Maintenance	2,233,486	1,928,104	305,382
Totals	5,768,361	4,875,116	893,245