

**DATE:** January 29, 2025

**TO:** MAYOR AND COUNCIL

**NAME AND TITLE:** Blake McIntosh, Director of Civic Operations

**SUBJECT:** Snow and Ice Control Policy 2025 Review

**ATTACHMENT(S):** Snow and Ice Control Policy approved September 9, 2019  
Snow and Ice Control Policy Review – Report to Council November 11, 2024

**RECOMMENDATION(S):**

That Council RECEIVES FOR INFORMATION the report dated January 29, 2025 from the Director of Civic Operations, titled “Snow and Ice Control Policy 2025 Review”.

**PURPOSE:**

At the January 22, 2025 budget meeting, Administration was directed by Council to return the existing Snow and Ice Control Policy for discussion.

**BACKGROUND:**

The objective of the City of Prince George’s snow and ice control program is to maintain associated municipal infrastructure during the winter season in a reasonable, functional and financially sustainable manner; to reduce the negative impacts that snow and ice may have on City infrastructure in the community; and to facilitate the movement of emergency vehicles, vehicular traffic, and active transportation networks throughout the winter months. The program is intended to assist vehicles that are properly equipped for winter driving conditions and being operated in a manner consistent with effective winter driving habits, and to assist those using active transportation networks with care and attention to conditions.

On October 6<sup>th</sup>, 2014, the Snow and Ice Control Council Procedure was adopted by Council. This Council procedure was developed through an extensive review of existing practices and was conducted by City staff and an external consultant. The procedure outlines snow event priorities and response times for winter maintenance of municipal roads, sidewalks, civic facilities and parks. In 2019, the Council Procedure was changed to the attached Council Policy to further outline the priorities of Council and guiding principles for the City’s snow and ice control program.

On November 4<sup>th</sup>, 2024, Council was presented with the attached report titled “Snow and Ice Control Policy Review.” The report outlined financial considerations for ceasing to clear residential driveways, increasing snow event thresholds and reducing services on statutory holidays.

#### STRATEGIC PRIORITIES:

The Snow and Ice Control Council Policy supports the City myPG Strategy – Sustainable Infrastructure and provides direction regarding snow and ice control management.

#### FINANCIAL CONSIDERATIONS:

Defined timelines for completion of snow removal activities and annual budgetary adjustments support the level of service outlined in the existing policy. Budgetary enhancements support equipment resources, contracted services, staffing and operating hours required to achieve defined levels of service. Varying winter conditions impact the cost associated with snow removal and ice control and directly affect seasonal operating expenditures. The internal staffing model and associated labour costs required to perform snow and ice control operational activities are a semi-fixed, necessary expenditure to ensure that resources are available to support normal winter maintenance and snow event declarations. Other constant costs are related to equipment and materials necessary for winter operations and end of season maintenance. Table 1. and the accompanying graph reflects steady costs included in the 2024 annual snow and ice control budget

Table 1:

Breakdown of Costs	% of 2024 Budget
Labor-including burdens for snow	34%
Materials including salt, sand, gravel	8%
Equipment Retainers	2%
Winter Sand Pickup	9%
Remaining Costs attributed to snow events and general winter maintenance activities.	51%
<b>Approved Snow Budget for 2024</b>	<b>\$ 10,300,000</b>

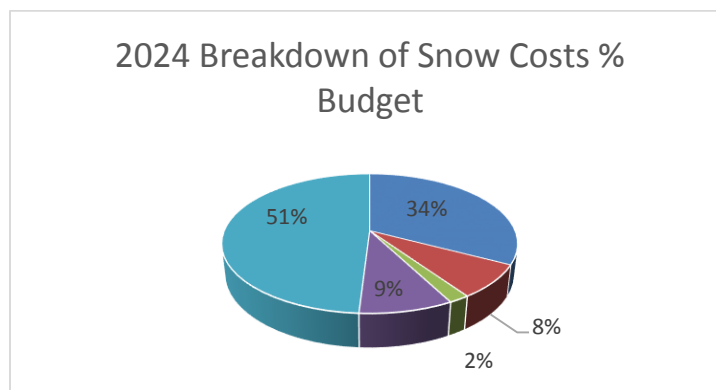


Table 2 below shows a 5 year comparison of the costs of snow and ice control over a calendar (fiscal) year. It should be noted that while winter may be thought of on a seasonal basis, the City budget is based on a calendar year for the snow and ice control budget. The calendar year budget is comprised of the first part of one winter season from January to March and the second part from the next winter season from October to December.

**Table 2: 5 Year Costs of Snow and Ice Control**

<b>Year</b>	<b>Approved Budget</b>	<b>Year end expenditure</b>	<b>Variance</b>
<b>2019</b>	\$8,500,000	\$9,855,763	\$(1,355,763)
<b>2020</b>	\$8,500,000	\$10,522,130	\$(2,022,130)
<b>2021</b>	\$10,000,000	\$7,707,770	\$2,292,230
<b>2022</b>	\$10,000,000	\$9,290,365	\$709,635
<b>2023</b>	\$9,800,000	\$10,772,443	\$(972,443)
<b>2024 to date</b>	\$10,300,000	\$10,600,000	\$(300,000)

**SUMMARY AND CONCLUSION:**

Council approved the Snow and Ice Control Council Procedure in 2014 and subsequently approved the transition from a Council Procedure to a Council Policy in 2019. Defined timeframes and priority routing identified in the Snow and Ice Control Council Policy and the Snow and Ice Control Routes Bylaw provide continuity for the delivery of snow removal services and public expectations. Civic Operations continues to administer the policy and focus on operational improvements and work management procedures to provide consistent levels of service. A change in levels of service outlined in the policy will require a review of current practices, funding and ultimately a decision by Council as to what services levels would be reduced or increased.

**RESPECTFULLY SUBMITTED:**

Blake McIntosh, Director of Civic Operations

PREPARED BY: B. McIntosh

**APPROVED:**

Andy Beesley, Acting City Manager/Director of Civic Facilities and Events

Meeting Date: [2025/02/24]



# POLICY

**POLICY NAME:** Snow and Ice Control

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**CATEGORY:** City Government – Effective Governance  
**APPROVED BY COUNCIL:** 2019/09/09  
**DEPARTMENT RESPONSIBLE:** Engineering and Public Works

## PURPOSE:

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This policy supports the City Government Strategy - Sustainable Infrastructure Policy and provides direction regarding snow and ice control management.

The Snow and Ice Control Policy is necessary to make a clear statement of the intent of the City of Prince George winter maintenance operations and establish the priorities and service levels of the snow and ice control. An effective and efficient snow and ice is necessary to allow the municipality to function under normal winter weather conditions to reduce snow and ice hazards and to provide reasonable winter mobility on City infrastructure including municipal roads, laneways, sidewalks, trails, and Civic and Park facilities.

The Guiding Principles of Snow and Ice Control in the City of Prince George are:

- Four Season City - Prince George is a city with four distinct seasons and the winter season and its conditions are an important part of life in our community;
- In Partnership with our Residents - Council recognizes that snow and ice control operations call for a collaborative approach with residents, commercial, industrial, and institutional sectors and the City of Prince George Staff;
- Public Safety a Priority– Municipal roads will be cleared on a priority basis to enable effective movement of emergency vehicles, vehicular traffic, and facilitate movement for active transportation within the city; and,
- Financial Sustainability - Council and the taxpayers of Prince George support the Snow Levy and decisions made on how this money is spent needs to be done in a measured manner with the priorities set out by Council.

## POLICY OBJECTIVES:

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The objective of the City of Prince George's snow and ice control program is to maintain municipal roads, laneways, sidewalks, trails, and Civic and Park facilities (parking lots, pedestrian surfaces, and entrances) during the winter season in a reasonable, functional and financially sustainable manner; to reduce the negative impacts that snow and ice may have on City infrastructure in the community; and to facilitate the movement of emergency vehicles, vehicular traffic, and active transportation networks throughout the winter months. The program is intended to assist vehicles that are properly equipped for

winter driving conditions and being operated in a manner consistent with effective winter driving habits, and to assist those using active transportation networks with care and attention to conditions.

The policy and the administration of the policy also aims at providing an equitable level of service to all the residents of the City of Prince George.

The following actions will help guide the City of Prince George in the development, implementation, maintenance, review and reporting of its snow and ice control program:

- Define the levels of snow and ice control services to be delivered using best management practices in support of Council's Strategic Priorities;
- Identify the optimum mix of internal/external resources to deliver the desired services;
- Plan financially for the defined levels of service and the risk of costs exceeding the annual budget due to the variable nature of winter;
- Identify and address the effects of climate change;
- Implement equipment training and succession planning to ensure that City operations are optimized and that support staff are trained and available when required; and,
- Communicate information to the public about snow and ice control operations, both in advance of and during the winter season.

This policy will be administered through the Snow and Ice Control Administrative Procedure.

This policy will be reviewed periodically to ensure that the priorities, service levels and support systems continue to meet the purpose of this policy and ensure adequate resources and reserves are both in place and available for winter maintenance operations.

#### **POLICY:**

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This policy applies to winter maintenance carried out on City infrastructure by the City of Prince George's employees and the external equipment contractors engaged by the City of Prince George. This policy operates in addition to, and may supplement, other policies and bylaws of the City of Prince George.

Prince George City Council recognizes that Prince George is a winter city, and that winter conditions are part of who we are. How, when and where the City administers its snow and ice control program on municipal roads, lanes, sidewalks, trails, and Civic and Park facilities (parking lots, pedestrian surfaces, and entrances) depends on the City Council-approved priority system, as well as other factors, which may include the:

- Temperatures before, during and after a snow event;
- Duration of the snow event or back-to-back events;
- Amount of accumulated snow;
- Weather forecast; and
- Equipment utilization and downtime.

For the purpose of snow and ice control operations, the municipal road network, sidewalks (as part of a pedestrian network), laneways, trails, and Civic and Park facilities are categorized into one of three priority classifications. When necessary the order of priority for the provision of the required services may be altered. The City will monitor winter weather conditions twenty-four (24) hours a day. Should snowfall accumulations reach defined thresholds (minimum metrics) for categorized routes within a 24-hour period, a snow event may be declared.

The snow clearing levels, implemented through the Snow and Ice Control Administrative Procedure, describe the varying levels of response to different snow accumulation events. These priorities are - Priority One (1), Priority Two (2), and Priority Three (3). The sequence and the methodology of services provided at each level, including monitoring the efficiency of clearing roadways, parking lots and active transportation network will be based on operational efficiency, including route optimization and other relevant applicable factors and administered through the Snow and Ice Control Administrative Procedure.

Snow clearing may occur in all areas of the City of Prince George twenty-four (24) hours a day in the event of a snow event.

#### Snow Clearing Service Levels

Priority	Description	Minimum Metrics	Timelines
<b>One (1)</b>	<ul style="list-style-type: none"> <li>Arterial Roads and Curb Adjacent Sidewalks</li> <li>Downtown Central Business District Roads, Laneways and Sidewalks</li> <li>Hospital District</li> <li>Major Facility Entrances, Pedestrian Surfaces and Daily Parking Areas</li> <li>City Off-Street Parking</li> </ul>	<ul style="list-style-type: none"> <li>When accumulated snowfall reaches 7.5cm in a 24 hour period</li> <li>Max 2.5cm compact snow</li> </ul>	<ul style="list-style-type: none"> <li>Accomplish within 48 hours after the end of a snow event</li> </ul>
<b>Two (2)</b>	<ul style="list-style-type: none"> <li>Collector Roads and Curb Adjacent Sidewalks</li> <li>Priority Hills</li> <li>Commercial and Industrial Zoning Roads, Laneways, and Curb Adjacent Sidewalks</li> <li>Transit Bus Routes that are not in Priority Ones (1)</li> <li>Transit Bus Stops along Priority Ones (1) and Twos (2)</li> </ul>		

### Snow Clearing Service Levels Continued

Priority	Description	Minimum Metrics	Timelines
<b>Three (3)</b>	<ul style="list-style-type: none"> <li>Residential Roads, Laneways and Designated Sidewalks <ul style="list-style-type: none"> <li>Lanes may be closed if impractical to plow</li> </ul> </li> <li>Minor Facility Entrances, Pedestrian Surfaces and Parking Areas</li> <li>Major Park Pathways, Trails and Parking Lots</li> <li>Event Parking Areas (unless a major event is imminent, then raise priority to clear before the event)</li> </ul>	<ul style="list-style-type: none"> <li>When accumulated snowfall reaches 12.0cm in a 24 hour period</li> <li>Max 2.5cm compact snow</li> </ul>	<ul style="list-style-type: none"> <li>Accomplished within 72 hours after the completion of Priority 2 areas</li> </ul>
<b>Notes</b>			
	<b>Heavy Snowfall Declaration</b> <ul style="list-style-type: none"> <li>Advance start time in the Downtown Central Business District for nighttime snow clearing/removal in Priority One (1) and Two (2) areas from 12:00 am to 11:00 pm</li> </ul>	<ul style="list-style-type: none"> <li>Issued when accumulation reaches 20.0cm in a 24 hour period</li> </ul>	<ul style="list-style-type: none"> <li>Extend completion times by 24 hours for each 8.0cm of snow over the specified metrics</li> </ul>

### Ice Control Service Levels

Description	Minimum Metrics	Timelines
Anti-Icing (Liquid Salt) may be applied to Priority 1 and 2 road and parking lot surfaces	<ul style="list-style-type: none"> <li>Up to 24 hours in advance of a forecast snow event with a 60% or greater probability of occurring and when surface temperatures are warmer than minus 20 Celsius</li> </ul>	Selectively used up to 24 hours in advance of a Priority 1 snowfall event
Pre-Wetting (Liquid Salt)	<ul style="list-style-type: none"> <li>Applied to 100% of abrasives and road salt prior to application to road and pedestrian surfaces</li> </ul>	In use any time abrasives or road salts are applied
Road Salt (Rock Salt)	<ul style="list-style-type: none"> <li>Immediately following snow removal from Priority Ones (1) and Twos (2) when surface temperatures are warmer than minus 7 Celsius.</li> </ul>	Selectively used to melt snow and ice

#### Ice Control Service Levels Continued

Description	Minimum Metrics	Timelines
Abrasives <ul style="list-style-type: none"><li>• Winter Crush</li><li>• Winter Sand</li></ul>	<ul style="list-style-type: none"><li>• Normally applied to road intersections, stops, hills and bends and pedestrian surfaces in Priority Ones (1) and Twos (2), when ice forms</li><li>• May be applied to Priority 3 areas when conditions merit</li></ul>	Selectively used to improve traction on roads and pedestrian surfaces

#### Snow Removal (Loading Out)

Snow removal operations will be considered only in situations where the lack of adequate storage prohibits the normal winter movement of vehicular and/or pedestrian traffic and sight restrictions at intersections and around fire hydrants.

Windrows of snow shall normally be removed on Priority One (1) and Two (2) streets where the following criteria are met:

- Where lack of adequate storage results in a reduction in the number of available traffic lanes, thereby prohibiting the reasonable movement of vehicular traffic under normal winter driving conditions;
- Where lack of adequate storage prohibits the reasonable movement of those using the active transportation network;
- Where there is a need to expose catchbasins to facilitate spring melt, winter freeze and thaw cycles, precipitation as rain, and to prevent flooding;
- Where it is necessary to remove snow and ice in curb and gutter areas to enable winter traction material removal by sweeping; and,
- Notwithstanding any of the above, the City shall take advantage of mechanically blowing snow to adjacent properties to accommodate snow storage wherever possible, rather than resorting to hauling.

#### Driveways

To accommodate snow storage in residential neighbourhoods, driveways will be opened to a maximum of 8.0 meters.

#### Communications

The public will be kept informed of snow and ice control operations through a variety of methods which will be reviewed annually.



**Date:** October 18, 2024

**To:** **Mayor and Council.**

**Name and title:** Blake McIntosh, Director Civic Operations

**Subject:** Snow & Ice Control Policy Review

**Attachment(s):** SRTC - Snow and Ice Control Policy  
Official - Snow and Ice Control Policy 2019-09-09

**Recommendation(s):**

That Council RECEIVES for information the report titled “Snow & Ice Control Policy Review” dated October 18, 2024 from the Director of Civic Operations.

**Purpose:**

At the January 23, 2024 budget meeting, Administration was directed by Council to return the existing Snow and Ice Control Policy for discussion. On June 12, 2024, Council received the attached report titled “Snow and Ice Control Policy” for information. Subsequent to receiving the report, Council requested Administration to outline budget impacts for the following items:

- a) Ceasing to clear residential driveways as defined in the existing Snow and Ice Control Policy
- b) Increase snow clearing service levels minimum metrics by 2.5 cm
- c) Reduction of snow clearing service on statutory holidays

**Background:**

The 2019 Council approved Snow and Ice Control Policy currently defines snow clearing service levels through a priority system in which specific roadway classifications and facilities receive time-based services when a specified amount of snow has accumulated within a 24 hour period. These criteria trigger mobilization of City forces and contracted resources to clear roadways within specified timelines. The timelines do not pause for weekends or statutory holidays. Predicting the number of snow events in a calendar year is difficult. Historically, there have been 4 to 5 snow events on average per year. Estimated costs that could be eliminated are based on the annual average number of snow events.

**Discussion:**

For 2024, Council approved a budget of \$10.3 million dollars for snow and ice control. For the annual 2024 Budget Survey snow and ice control related responses indicated main route satisfaction was 77% great or good and 19% not good or needs work. For residential routes, respondents conveyed satisfaction was 54% great or good and 40% not good or needs work.

Council has requested administration provide budgetary impacts for the reduction of the following service levels:

**a) Ceasing to clear residential driveways as defined in the existing Snow and Ice Control Policy**

In the early 1990's, Mayor and Council transitioned to approving clearing of residential driveway entrances as part of snow and ice control services. Originally, a typical snow clearing crew or "grader set" in curb and gutter areas was comprised of two graders and one loader. The single loader was in place to clear roadway intersections of windrowed snow. Initially, drop gates on graders were trialed to clear driveway entrances with limited success. Operations then transitioned to performing driveway entrance clearing with loaders. The standard grader set now includes two loaders to perform driveway and intersection clearing. In essence, additional costs to clear driveway entrances is the cost of an additional loader on the 7 grader sets employed during a fully resourced snow event operation.

Eliminating residential driveway windrow opening during a defined snow event would remove the costs associated with employing 7 contracted loaders specific to the driveway opening function. Based on an average of 5 snow events per year, the elimination of residential driveway opening could achieve an annual savings of \$225,000 in 2024 dollars.

**b) Increase snow clearing service levels minimum metrics by 2.5 cm**

The current classification priority-based system and associated completion timelines are based on accumulated snow received in a 24 hour period. Current metrics for priority one and two routes outline a minimum snow accumulation of 7.5 centimeters. Priority three routes outline a minimum snow accumulation of 12.0 centimeters. An increase of 2.5 centimeters would change Priority 1 & 2 thresholds to 10 centimeters and Priority 3 routes to 14.5 centimeters subsequently changing the trigger points for full deployment of internal and contracted resources. For ease of rounding, it would be suggested 15.0 centimeters be the accumulation amount for Priority 3 routes should Council choose to amend the existing policy.

As prediction of the number of snow events in a season is challenging, data has been derived from the years 2022-2024. For this timeframe, on average, there have been four (4) Priority 1,2 & 3 snow events. See Figure 1 below.

Figure 1.

Year	# of Snow events Current thresholds*	# of Snow events Meeting Increased thresholds**	Estimated savings***
2022	4	4	\$0.00
2023	5	3	\$240,507.00
2024	4	2	\$371,495.00
Overall threshold increase savings total for 2022-2024			\$612,002.00

\*number of snow events for calendar year in which accumulations meet current policy thresholds

\*\*number of snow events for calendar year in which accumulations would meet proposed threshold increases

\*\*\*estimated savings that would have occurred if proposed accumulation threshold increase were in place in calendar year resulting in less full resource deployment.

Of the 13 snow events for the years 2022-2024, 9 would not have met the current snow accumulation thresholds should the policy have reflected the proposed increases.

**c) Reduction of snow clearing service on statutory holidays**

To achieve the objectives of the Snow and Ice Control Policy, when minimum snow accumulations are met for a full deployment of City forces and contracted resources, timelines established in the policy require continuous 24 hour operations. As a result, crews continue work through weekends and statutory holidays to achieve the service level.

Should a defined snow event include statutory holidays, clearing activities still occur as part of the current policy. For each day snow and ice control services are paused during a defined snow event that encompasses 3 shifts for internal labour and equipment and contracted services on a statutory holiday, cost savings reflect a total of \$211,501. Should a snow event include all applicable winter statutory holidays (4 in total), savings would amount to \$846,004. Both figures are reflected in 2024 dollars.

**Strategic Priorities:**

The City of Prince George Snow and Ice Control policy supports the myPG goal of Organizational Excellence.

**Financial Considerations:**

Estimated potential savings for Snow & Ice Control Policy changes as requested by Council are as follows:

<b>Service Level – Declared Snow Event</b>	<b>Estimated Annual Savings</b>
Ceasing to clear residential driveways	\$225,000.00
Increase Snow Event thresholds (3 year average)	\$204,000.00
Reduction of services on statutory holidays (4 days)	Up to \$846,004.00
Total	\$1,275,004.00

**Summary and conclusion:**

The Snow and Ice Control Policy defines the intent of the City of Prince George winter maintenance operations through the establishment of service levels. The main objective of snow and ice control is to allow the City to continue to function under typical winter conditions through a reduction of hazards and provision of reasonable mobility on municipal roadways, laneways, sidewalks, trails, Civic and Park facilities. In times of winter conditions outside of the norm, the policy provides guidance and timeframes in which the public can reasonably expect City infrastructure to return to passable winter conditions. The review of residential driveway clearing, increase in snow event thresholds and no roadway clearing on statutory holidays is a reduction of current service levels. Potential savings of the proposed service level changes have been outlined in this report. It is important to recognize that the outlined savings are variable due to unpredictable weather and are only applicable to snow event situations. Winter staffing models and associated costs to support the Snow and Ice Control policy are static. To perform normal winter maintenance activities and administer the Snow and Ice Control policy, it is necessary to have staff at the ready. Should Council choose to change the current Snow and Ice Control Policy, Administration would look to implement any changes beginning in 2025.

**Respectfully submitted:**

Blake McIntosh, Director of Civic Operations

Prepared by B. McIntosh

Approved:

Walter Babicz, City Manager

Meeting date: 2024/11/04