

Updates to Snow and Ice Control Policy to Respond to Significant Winter Storm Events

RECOMMENDATION(S):

That the Standing Policy Committee on Transportation and Transit recommend that Council:

1. Approve amendments to the Council Snow and Ice Control (SNIC) Policy to provide Administration the authority to declare a snow emergency to deploy additional resources on a city-wide basis during significant winter weather events.

HIGHLIGHTS

- Council directed Administration to amend the SNIC Policy with respect to declaring snow emergencies. Through these amendments, City of Calgary resources will be deployed expediently during significant winter storm events to improve safety and mobility for Calgarians.
- **What does this mean to Calgarians?** By deploying snow and ice control resources to communities sooner, Calgarians will experience less impediments to mobility resulting from major winter storms.
- **Why does it matter?** Delivering high-quality operational services is a priority for The City of Calgary (The City) in all weather conditions. Ensuring Calgarians have access to the transportation network and emergency vehicle access is essential. There is broad public support for improved snow clearing responsiveness during significant snow events.
- Administration reviewed existing policies and other jurisdictions relating to significant winter events to better align the delivery of services during major snow events.
- Amendments to the SNIC Policy will allow Administration, through the Director of Roads, the ability to declare a snow emergency.
- An updated criteria for declaring snow emergencies will be in place and response activities will be implemented through effective strategies to clear snow in residential areas.
- During a snow emergency, residents living next to all residential roads will be advised to move vehicles off street where possible to support snow clearing operations. This will allow crews to address residential areas after Priority 1 and 2 routes are completed.
- At the 2021 January 18 Combined Meeting of Council, Administration was directed to report back to Council by June 2021 with recommended updates to the SNIC Policy.
- Strategic Alignment to Council's Citizen Priorities: A city that moves

DISCUSSION

The City is committed to the provision of a safe, customer focused and efficient transportation system that supports mobility choices. The delivery of SNIC services is a partnership between multiple business units. Administration follows the Council approved SNIC Policy outlined in the 7 Day Snow Plan (Attachment 2) and clears high priority areas within 48 hours of snowfall ending. Compared with other jurisdictions, The City delivers an efficient winter maintenance program among some of the lowest costs per lane kilometre of any large municipality in Canada (Attachment 3).

Significant Winter Storm Events

Over the past three winter seasons, the total number of snow events has ranged from 21 (2020/21) to 39 (2019/20) and most result in accumulations below 3cm. Since 2013, there have

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been five snow events over 20cm. Snowfall events resulting in accumulations over 12cm result in higher volumes of service requests received by The City.

The most recent major snow event in Calgary was on Dec. 21, 2020 where some areas received 40cm of snowfall resulting in substantial accumulations on roadways, sidewalks and pathways. A snowfall three days later resulted in accumulations of 7cm. Over 7,000 SNIC 311 service requests were received related to this event. A key learning was that the current SNIC Policy does not address responding to residential areas in a timely manner following high accumulation, successive major snow events. Citizen expectations for residential snow clearing response are not being met for these types of major events.

SNIC Policy Amendments

The most recent amendments to the SNIC Policy were in 2011. Council is currently responsible for the declaration of a snow emergency. A proposed amendment to the SNIC Policy is to delegate this responsibility to the Director of Roads. This will allow resources to be deployed to support policy outcomes when a snow emergency occurs. Other proposed policy amendments include formatting and definition updates to align with updated corporate standards. Administration will be completing more comprehensive updates to the SNIC Policy to reflect future corporate alignment and service levels following engagement with stakeholders. This is expected to occur in 2023.

Responding to Snow Emergencies

A snow emergency refers to a winter storm that overwhelms the base compliment of snow response equipment and personnel. When a major storm occurs, the priority is to quickly make streets, sidewalks and active modes infrastructure passable. Response activities include the deployment of all available City resources and contractors to ensure mobility along with associated parking restrictions and public communications. It is recommended that a snow emergency response is initiated by the Directors of Roads.

The following criteria would warrant the declaration of a snow emergency and could be triggered if snow accumulations of 40cm or greater, due to one or multiple events, occur:

- Public right-of-way becomes impassable and/or emergency services express concerns about their ability to respond; major disruptions to transit operations.
- City resources and contractors unlikely to restore operations within forty-eight hours after full deployment.

Administration has evaluated options for responding to snow emergencies. A balanced approach that prioritizes responsiveness and cost is recommended. The “Level 2” response is recommended to address major storm events and allow crews to clear residential areas sooner.

	Level 1	Level 2 (Recommended)	Level 3
Option	Status Quo	Plow clear travel path in residential areas after Priority 1 & 2 routes done	Plow clear travel path / snow removal in residential areas once snow stops falling
Cost	No Change	\$2M - \$3M incremental cost per major snow event	\$12M - \$16M per event plus capital upgrades for new snow storage facilities
Timing / Impacts	No Change	5 - 7 days city-wide Streets used for windrow storage	4 - 6 weeks Limited snow storage capacity

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Existing agreements allow The City to increase available contractors and can be updated to achieve a higher level of service. Municipal operations such as garbage and recycling pickup could also be suspended to support a broader response.

Administration reviewed options to allow private volunteers to use their skills to support SNIC operations. This type of on street activity is typically discouraged due to associated liability, safety and environmental concerns. No external parties have contacted The City to work on a volunteer basis and this practice does not occur in any other Canadian cities. On street work would require City authorization along with indemnification, insurance and equipment/safety training. Uncoordinated volunteer activity presents safety risks that may outweigh the benefits of the service. The City will continue to promote existing volunteer programs for interested parties which are focussed on sidewalk clearing to support residents.

Snow Route Parking Bans

Since 2011, Snow Route Parking Bans have been used in Calgary to support SNIC operations. To align with proposed residential clearing practices during a snow emergency, residents will be encouraged to move to alternate off street parking spaces after Priority 1 and 2 routes are completed. A city-wide residential parking advisory will be communicated and will allow Administration to evaluate this measure for future policy updates. The resulting benefit will be residential areas that are easier and safer to navigate.

A residential parking advisory will function in sequential stages. After high priority areas, bus routes and active modes infrastructure are completed, crews would complete clearing in residential areas. Residents will be advised to move to alternate parking areas for 2 to 3 days to allow crews to operate quickly and safely in their community. A city-wide parking ban has recently been set up in Edmonton and is used in other jurisdictions.

The corporate Organizational Realignment work underway will further support ongoing improvements to the SNIC Program through alignment, coordination and deployment of resources to better serve citizens. Following adoption of SNIC Policy amendments, Administration will update internal processes and external communications for the upcoming winter season.

STAKEHOLDER ENGAGEMENT AND COMMUNICATION (EXTERNAL)

- ☐ Public Engagement was undertaken
- ☒ Public Communication or Engagement was not required
- ☐ Public/Stakeholders were informed
- ☐ Stakeholder dialogue/relations were undertaken

Past citizen satisfaction surveys have showed varying levels of satisfaction with residential snow clearing. In the Spring 2021 Pulse Survey, lack of snow removal/snow clearing was the second most mentioned topic on the issue agenda and more than half of Calgarians would like to see increased investment in this service area.

Internal business units including Calgary Transit, Calgary Parks Community Standards and CEMA have provided input and support for these policy updates for continued SNIC program improvements. Future updates to City communication channels will include a new snow emergency component for additional public resources on the topic.

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IMPLICATIONS

Social

These recommended changes are in alignment with the Social Well-Being Policy. The City works to improve delivery of services to all Calgarians and provide equitable services.

Environmental

Consistent with best management practices established to satisfy operational safety and environmental management of road salts, The City has developed, implemented, and annually updated a "Road Salt Management Plan" to guide storage and use of chlorides and traction materials.

Economic

Provision of SNIC services contribute to the health, safety, and economic well-being of Calgary and failure to adhere to the SNIC Policy may result in negative societal and economic impacts for the public.

Service and Financial Implications

Existing operating funding - base

\$0

There are no associated base operating impacts resulting from this report. Funding required to respond to major storm events above base budgets, estimated at \$2M-\$3M per event, would be funded through the SNIC Reserve (Current Balance: \$10M) and/or the Fiscal Stability Reserve.

RISK

Severe winter weather is one of the top potential disaster risks for The City that contribute to corporate risks. Research shows that mitigating disaster risk and having strategies in place to decrease the impact is more economically, socially, and environmentally sound than managing disaster consequence. Through these policy amendments, The City will be able to respond to snow emergencies in a timely manner which will enhance the ability for The City to deliver essential services.

ATTACHMENT(S)

1. Snow and Ice Control Amended Policy for Approval
2. Snow and Ice Program Overview
3. 2018 Municipal Benchmarking Network Canada Performance Measurement Report (excerpt)

Department Circulation

General Manager/Director	Department	Approve/Consult/Inform
Doug Morgan	Transportation	Approve
Katie Black	Community Services	Inform