

COUNCIL REPORT

M&C No.	2021-319
Report Date	November 23, 2021
Meeting Date	November 29, 2021
Service Area	Public Works & Transportation

Her Worship Mayor Donna Reardon and Members of Common Council

SUBJECT: Winter Management Overview

OPEN OR CLOSED SESSION

This matter is to be discussed in open session of Common Council.

AUTHORIZATION

Primary Author	Commissioner/Dept. Head	City Manager
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RECOMMENDATION

It is recommended that Common Council receive this report for information.

EXECUTIVE SUMMARY

The purpose of this report is to update Common Council on what City staff will be doing, and is what is asked of the community, in keeping Saint John streets and sidewalks clear of snow, to specific objectives, for the 2021-2022 winter season.

Last season, resource and organizational adjustments were implemented to enhance the efficiency of the operations, with the goal of still meeting the same objectives. Although last season is considered a relatively "light" season, further improvements have been incorporated into the City's overall Winter Management Plan based on last season's experience and community feedback.

PREVIOUS RESOLUTION

N/A

REPORT

Service Objectives

One of the primary factors that influences virtually every aspect of the City's overall Winter Management Plan is an aim to strive for, measure against, and improve upon meeting specific service objectives. These objectives are also

important in liaising with the community as there will be, regardless of virtually any level of resources available, a period of time during a winter storm event where City streets and sidewalks are more difficult to navigate.

Following is a summary of these service objectives:

- Create a basic level of accessibility on the City’s Priority 1 and 2 streets and sidewalks, including to serve emergency vehicles,
- Clear passable travel lanes on streets on Priority 1 and 2 streets 8 hours after end of a storm, 12 hours after end of storm for Priority 3 and 4 streets,
- Push back and apply appropriate anti-icing material on Priority 1 and 2 streets 48 hours after end of storm, 72 and 96 hours after end of storm on Priority 3 and 4 streets,
- Clear a basic pedestrian passage on Priority 1 sidewalks 12 hours after the end of a storm, 24 hours for Priority 2 and 3 sidewalks, 72 hours for Priority 4 sidewalks
- Establish a walking surface with sand or salt applied at least once on Priority 1 sidewalks within 48 hours after end of storm, within 72 hours for Priority 2 and 3 sidewalks, within 96 hours for priority 4 sidewalks.

Each City street and sidewalk fits into one of four priorities referenced in the service objectives, as described in the following table:

	Priority 1	Priority 2	Priority 3	Priority 4
Streets	Arterial streets, highway connections, emergency routes	Major bus routes, schools, community centres, business districts	Collector streets, minor bus routes, industrial parks	Local or subdivision streets
Sidewalks	Major retail areas and major Saint John Transit bus stops	Immediate school areas	Remaining arterial street	Remaining local or subdivision streets

Towards Meeting Service Objectives Efficiently

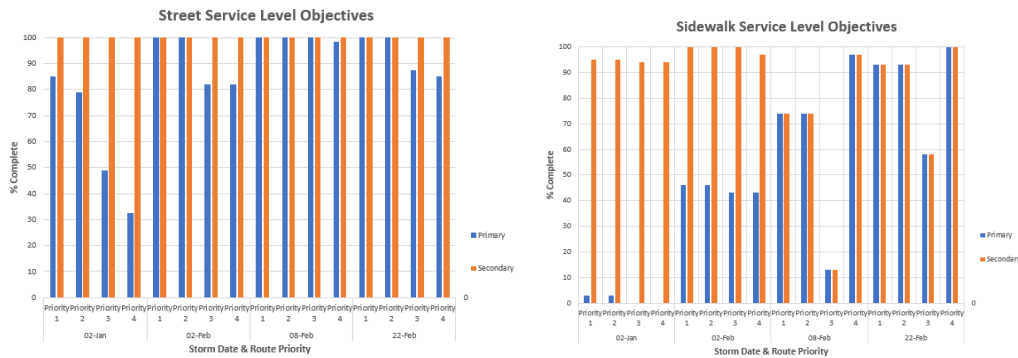
Every season, adjustments to the Winter Management Plan are made to meet the defined service objectives more efficiently. A significant step in this direction was made for the 2020-2021 season, mainly through the concept of balancing resources available for snow clearing over the course of the 24 hours of a day. Both staffing and 11 pieces of clearing equipment were reduced to realize these efficiencies. With this balancing effort, the “surge” of snow clearing during the day time that citizens have come to expect would be diminished and some

redundant resources were lost. However, service objectives, that have remained unchanged from the prior season, are expected to continue to be met.

2020-2021 Measurement of Service Objectives

In the 2020-2021 winter season there were four recordable winter storms. The average Storm Severity of the four storms, measured out of 100, was 42.

There are 8 objectives (4 priorities with primary and secondary objectives for each) for both streets and sidewalks for each storm. With 4 recordable storms, there were 32 objectives aimed to be achieved last season. Twenty-nine (29) of the 32 (90%) street plowing objectives over the season were achieved on at least 80% of the streets each storm. Twenty (20) of the 32 (63%) sidewalk plowing objectives were achieved on at least 70% of the sidewalks each storm. The below two charts detail the percentage of streets and sidewalks that achieved each of the 32 service objectives.



Objectives were reached on fewer streets and sidewalks during the first storm of 2020-2021 than the subsequent three storms. These lower results early in a winter season are typical. Although pre-season equipment inspections are completed each year, the equipment is only truly tested, with any “weak links” found, when they begin to push snow. Further mitigation efforts are planned for the coming 2021-2022 season as detailed further in this report.

Service Improvements Identified During and Following 2020-2021 Season

As mentioned, the 2020-2021 winter season would be considered a “light” one with fewer and less intense storms than many previous years. It was therefore difficult to effectively assess how well service objectives can be achieved with a more severe winter with the implemented resource adjustments. However, a number of service improvements were identified that will be implemented for the 2021-2022 winter season.

Balancing of resources between a Day Shift and a Night Shift were achieved for the majority of street plow routes. However, resources were insufficient to

balance resources between the two shifts for the clearing of some local and rural streets traditionally cleared by one-ton trucks and for the clearing of sidewalks. Through a recent review of one-ton plow routes, more than a quarter of streets cleared with one-tons will be transitioned to routes cleared by larger street clearing equipment. This will improve the level of service provided to many of these local and rural streets throughout the 24-hour day as larger equipment can clear snow more efficiently than with one-tons. With a related reduction in the number of streets cleared with one-tons, the number of “one-ton” routes were able to be reduced from 10 to 6. This also allowed more staff to be assigned to the Night Shift for the coming season, which is expected to achieve an almost fully balanced resource allocation for the remaining one-ton routes between the two shifts. The increased number of Night Shift personnel is also expected to contribute to the balancing of sidewalk clearing resources, although the majority of sidewalk clearing will still be primarily accomplished during the Day Shift operations.

The City continues to have sufficient resources to clear approximately 55% of the City’s sidewalks to the defined service objectives. With community feedback received during the 2020-2021 season, in addition to the staffing balancing efforts described in the previous paragraph, the following adjustments to the sidewalk plowing plan will be made for the 2021-2022 season:

- Valerie Street is removed as a serviced sidewalk as it is a private street,
- With the capacity gained with the removal of the Valerie Street sidewalk, and in response to citizen requests in the 2020-2021 season to clear a more direct path between Centennial School and the rest of the Old North End, the sidewalk on Visart Street from Adelaide Street to Shamrock Park will commence to be cleared as a priority 2,
- The sidewalk on the western side of Cliff Street, instead of the eastern side, will be cleared as development activity is expected to close off the sidewalk.
- The South Central Peninsula (SCP) will be fully transitioned from being served with four sidewalks routes to three. This was gradually implemented throughout last season. Service objectives for the SCP routes tended to be consistently over-achieved with four routes.

Street Plowing Resources for 2021-2022 Season

The city remains separated into 27 large street plowing routes, with operators assigned to each route for the Day Shift and Night Shift. The Day Shift will continue to have additional personnel assigned to operate material loading equipment and slightly more coverage for the six one-ton routes.

Sidewalk Plowing Resources for 2021-2022 Season

The City will have 11 sidewalk plow routes for the upcoming season, down one from the previous season with the SCP consolidation of routes. These routes will continue to be primarily served on the Day Shift, with some improvements as previously discussed.

How Can the Community Help?

The community can continue to play a significant role in maintaining our livable and safe city throughout the winter. Remaining informed about our Winter Management Plan through visiting the Snow Removal section of the City's website at www.saintjohn.ca is important. Planning for additional travel time or re-evaluating the need to travel at all during or immediately following forecasted storms will help. Use of winter tires and proper footwear will provide added traction as streets and sidewalks are going to be slippery at times, particularly while service objectives are being pursued. Keeping catch basins or fire hydrants around a citizen's property clear of snow and other debris will help ensure these are available to protect neighbourhoods if or when the need arises. Property owners are asked to ensure snow from their property is not placed onto City streets and sidewalks; this delays our ability to serve you and your neighbours and is a violation of one of our by-laws.

The City appreciates some in our community have no or limited off-street parking, or use of off-street parking that is available can be inconvenient. The City has developed over the years, and continue to refine, a comprehensive system of ensuring on-street parking is available when and where needed as much as possible while supporting effective snow clearing efforts that we all also expect. If on-street parking occurs when snow clearing equipment is on a street, in efficiencies are introduced as equipment needs to return at a different time, or service objectives do not get met for that street. The community can help by following on-street parking regulations for a particular street, parking off-street when overnight parking bans are called is important, and parking off-street whenever possible.

City staff, through our Integrated Customer Service Centre, are available to interact with the public at any time. Remaining informed about the City's winter management plan on our website, however, will assist in understanding expectations of service during and following storms. Patience during more severe storms is requested. Although we are available to interact with the public 24/7, citizens remaining informed will help prevent surges in calls to us during and following storms that may delay or prevent others with a need from reaching us.

STRATEGIC ALIGNMENT

This report best aligns with Common Council's priority of:

- **Move** – by contributing to the re-establishment of safe transportation options following a winter storm event, and

- **Perform** – by measuring results and continuous improvement of the street and sidewalk snow clearing service.

SERVICE AND FINANCIAL OUTCOMES

Staff is optimistic the changes introduced in the 2020-2021 winter season, in conjunction with past initiatives, such as live edge plow technology and brine usage, and improvements for the coming season will allow your Public Works team to maintain a consistent, balanced approach in providing citizens with quality service during the winter months with the resources and equipment available. We will continue to monitor success this coming season.

INPUT FROM OTHER SERVICE AREAS AND STAKEHOLDERS

N/A

ATTACHMENTS

City Staff Presentation