




Hamilton

INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	April 19, 2021
SUBJECT/REPORT NO:	Winter Control Program (PW21018) (City Wide)
WARD(S) AFFECTED:	City Wide
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SIGNATURE:	

COUNCIL DIRECTION

N/A

INFORMATION

The objective of the City's Winter Control Program is to maintain the City's roadways to a safe condition and reduce hazards from snow and ice.

The program is comprised of several services:

- Winter route inspection and pavement monitoring;
- Roadway anti-icing and de-icing material application;
- Snow plowing;
- Sidewalk and HSR bus stop clearing; and
- Snow removal, snow haulage and snow storage operations.

Levels of Service

In 2001, Council approved a Winter Control Level of Service for all road classes within the City. The Winter Control Level of Service was revised in 2013 altering the activation trigger and the pavement conditions for residential roads from 10 cm plowing activation and snow packed surface condition to an 8 cm plowing activation and a target surface condition of bare pavement.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

In February of 2021, Council approved Report PW18096a - Maintenance Standards for Municipal Highways Policy, which affirmed the City's approach to transportation maintenance infrastructure. The policy and associated guidelines identify the levels of service for all maintenance activities including winter control. An overview of the City's Winter Control Level of Service guidelines is attached to Report PW21018 as Appendix "A".

The City's Roadway Maintenance crews and contractor's follow the Council approved Maintenance Standards for Municipal Highways Policy during a winter event. As per the policy, every road in Hamilton is plowed based on its priority under the road classification system.

Operational Response Guideline

An Operational Response Guideline is attached to Report PW21018 as Appendix "B". The guideline was developed to define operational parameters for response to various winter control scenarios in order to provide an acceptable level of service to the community during a storm event to ensure the transportation network remains functional for emergency service provision, transit operations, business and major institutions. The Operational Response Guideline is a tool for staff to systematically complete level of service on higher priority roads and work on local streets in a timely manner so the community can continue to function despite the severe weather conditions.

In addition to the Council approved Level of Service, there are seven steps in the Winter Control Program:

1. Priority 1 roads;
2. Priority 2A and 2B roads;
3. Priority 3 and 3R (residential) roads;
4. Sidewalks, bus stops and school frontages;
5. Intersection clean-up for crosswalks and sightline issues;
6. Respond to public inquires for snow being plowed back onto sidewalks; and
7. Court clean-up for snow removal and disposal of stock plied snow.

Snow Emergencies

In the event of extreme and heavy snowfall events, the City has the ability to declare a snow emergency through By-Law No. 01-218, being a bylaw to regulate on-street parking. Under the snow emergency condition, vehicles are required to be removed from city streets for the purpose of snow ploughing or snow removal at any time. Under Section 24. (1), a snow emergency is the period of time commencing with a declaration by the Chief of Police that a snow emergency is in effect for some or all of the snow routes listed in Schedule 21 of the bylaw.

It is illegal to park on these roads as per the Highway Traffic Act (R.S.O. 1990, c. H.8, s. 170 (12), which deals with the clearing of snow from the highway.

Enforcement of the regulations respecting "Parking or Standing during a Snow Emergency" shall not commence before six hours have passed from the time that the Chief of Police declared the Snow Emergency. In the case of a Snow Emergency which is declared between the hours of 10:00 p.m. and 7:00 a.m., enforcement shall not commence until after 10:00 a.m. and not before six hours has elapsed from the time that the Chief of Police declared the Snow Emergency.

Vehicles that block snow routes during an emergency may be ticketed and/or towed at the owner's expense.

Snow emergency routes may be signed with:

- No Stopping Anytime;
- No Parking Anytime; and
- No Parking Snow Route.

Snow emergencies are announced on local radio stations and through other media outlets.

Snow Emergency declarations are only used in the event of severe events and the last time the City has declared a Snow Emergency was in February of 2013.

Significant Weather Event

In December of 2018, through Report PW18096, Minimum Maintenance Standards Changes, Council delegated the authority for the General Manager of Public Works or designate, to declare the beginning and end of a significant weather event for the purposes of the *Municipal Act, 2001*, Ontario Regulation 239/02 – Minimum Maintenance Standards for Municipal Highways, on such terms as the General Manager of Public Works or designate considers appropriate.

When a winter event occurs that is beyond the municipality's capabilities to provide a reasonable response or comply with the Ontario Regulation 239/02, the 2018 revisions to the section 16.9 of Ontario Regulation 239/02 allows a municipality to declare a Significant Weather Event. In doing so the municipality may, due to the severity of the event, suspend operations and have their roads deemed to be in a state of repair during the timeframe that Significant Weather Event is declared.

If a municipality declares a Significant Weather Event relating to snow accumulation, the standard for addressing snow accumulation on roadways until the declaration of the end of the Significant Weather Event is to monitor the weather and to deploy resources to address snow accumulation on roadways starting from the time that the municipality

deems appropriate to do so. The declaration of a significant weather event allows supervisory staff to effectively plan and maximize resources in anticipation of and/or during a Significant Weather Event when all resources may be exhausted.

Operations

Snow plowing operations are affected by several variables including temperature changes, wind direction, traffic volume, pavement temperature and micro-climates. Actions taken to respond to winter storm events depend on the type of the storm event, particularly the quantity of snowfall expected.

Each of the four districts within the Roadway Maintenance section operate 24 hours per day, seven days a week including statutory holidays. There are seven road yards for City staff and equipment, along with two additional City owned yards used by the current area maintenance contractor EMCON. The City employs 300+ full-time and seasonal staff for the winter season (November to April).

The City has 110 in-house and 49 contracted EMCON plow trucks that handle the majority of the plowing and material application operations across the City. There are approximately 300 additional pieces of contracted equipment available either through the standby or on-call contracts used to assist when called upon during a significant winter event.

The Winter Control Program maintains the City's 6,492 lane kilometres of roadway, approximately 1,100 cul-de-sacs and over 2,300 bus stops. In addition, the City currently provides partial snow clearing for sidewalks using City staff in conjunction with contracted services to clear 397 kilometres of sidewalks across the City.

The City does not budget for nor provide any Winter Control Program services on assumed or un-assumed alleyways for a number of reasons such as: parking issues, encroachment issues, lack of snow storage, width of alleyways resulting in property damage during plowing operations.

The City's response time for roadway snow clearing from the end of a winter event for each winter priority rating is attached to Report PW21018 as Appendix "A".

Budget

The Roadway Maintenance Winter Control Program budget is comprised of two components; Winter Control Program and winter maintenance activities. The largest portion of the budget is the Winter Control Program which includes the actual winter control operations: plowing, material application, sidewalk snow clearing, HSR bus stops snow clearing, on-street and segregated bike lane snow clearing, snow hauling and snow disposal operations.

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The second component, winter maintenance activities includes: winter preparation of vehicles, snow fence mobilization and demobilization, pothole patching, spring street sweeping, sod and/or plowing damage repair, culvert thawing, localized flooding response, litter and debris removal etc.

The following table illustrates the approved budget allotment and the number of activations or expenditures over the last five years for the Winter Control Program:

Year	Approved budget	Actual expenditures
2016	\$29,766,550	\$30,568,413
2017	\$29,750,400	\$27,255,021
2018	\$30,739,720	\$30,108,613
2019	\$31,513,090	\$33,807,602
2020	\$33,532,790	\$28,795,425

Note: this is the total budget for the Winter Control Program including the winter maintenance budget. New contracts for winter contractor and salt resulted in budget pressures in 2019 and 2020.

The following table reveals the number of yearly snow event activations compared to the number of snowfalls over the last five years for the Winter Control Program:

Year	Number of snow event activation	Total number of snowfalls
2016	28	41
2017	30	44
2018	25	39
2019	29	39
2020	26	31

Plow Tracker and Road Clearing Priorities

The Plow Tracker website allows residents to track winter maintenance vehicles during a winter event. The map feature tracks where vehicles have been during the last 2, 4, 12 and 24 hours. As well as the City's in-house plowing equipment the area maintenance and standby contracted equipment are now included in the Plow Tracker app.

Plow Tracker is available by visiting this page on the City's website:

<https://www.hamilton.ca/streets-transportation/streets-sidewalks/hamilton-plow-tracker>

Residents can also find the plowing priority of their local street by entering the street name of interest, clicking on the street and the Winter priority class is provided as well as the route assignment.

Road Clearing Priorities are also available by visiting this page on the City's website:
<https://www.hamilton.ca/streets-transportation/streets-sidewalks/priority-road-clearing>

Communications During a Storm

Roadway Maintenance staff work closely with the City's Corporate Communications team during significant winter events to ensure the Mayor and members of Council, the media, and the public are updated quickly and thoroughly. Email updates are sent to the Mayor and members of Council when there is more than 20 cm of snow or significant ice accumulation. During significant storms, Corporate Communications will update the public regarding the City's snow response via the media, the City's website, social media and other channels.

The City has established a winter control action plan and our resources are prepared to deal with the upcoming winter season.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW21018 – Winter Control Level of Service Guidelines 2021

Appendix "B" to Report PW21018 – Operational Response Guidelines