



City of Toronto Winter Maintenance Review Update

Presented by: Municipal VU Consulting Inc.

History and 2025 Storm



Photo provided by City of Toronto

Toronto Winter Maintenance History

2018:

New org.
structure in
transportation

March 2019:

Council requests review
of winter maintenance
services program

Sept. 2019:

Winter
Maintenance
Program
Review
Report
(HDR)

Feb. 2020:

Mechanical
sidewalk
snow
clearing
pilot begins

Oct. 2020:

 **Auditor General
Report:** Phase 1:
Leveraging
Technology and
Management of
Contracts



**2020/21
Season:**

**Service Level
Change:**
Sidewalk level of
service changed
to 2 cm of
accumulation

June 2021:

 **Auditor General
Report:** Phase 2:
Deploying Resources



2021/22 Season:

Service Level Change:
Expansion of mechanical
sidewalk clearing service
begins (1300 km)

2022/23 Season:

 **New
performance-
based contracts
begin**

June 2023:

 **Auditor General
Report:** Review
of Procurement
and Award of
Contracts



Auditor General

Report: Status of
Previous Auditor
General's
Recommendations

**2023/24
Season:**

 **GPS/AVL
Maximo
Geotab
Tableau**

March 2024:

Major Snow Event
Response Plan Update

July 2024:

First Annual Winter
Maintenance Report



**2024/25
Season:**

**Service Level
Change:**
Consistent
for separated
and non-
separated bike
lanes

Snow route
parking
restrictions

March 2025:

Council requests review
of winter maintenance
program

July 2025:

Winter Maintenance
Program Review –
Interim Report –
(Municipal VU)

Nov. 2025:

Winter Maintenance
Program Review – Final
Report **MSERP**
(Municipal VU)

2019

2020

2021

2022

2023

2024

2025

2026



**Jan. 2019: Major Snow
Event**



**Jan. 2022: Major
Snow Event (55 cm)**



**Mar. 2023: Major
Snow Event (26 cm)**



**Feb. 2025: Major
Snow Event (58 cm)**

February 2025 Storm Core Issues

1. Major Snow Events and Urban Snow Storage



In less than nine days, Toronto experienced three significant snow events, depositing approximately 58 centimetres of snow on the city's dense urban grid. This total snowfall overwhelmed the available urban snow storage capacity.

2. Major Snow Event Response Plan (MSERP)



The City's MSERP lacked the detailed operational guidance required to manage the unique demands of a severe multi-day, multi-storm scenario. Operations staff and contractors had to make real-time ad hoc decisions about which areas to tackle first, where to stage loaders and haul trucks, and how to coordinate hauling logistics, during the peak of the crisis, when time and resources were already constrained.

3. Reporting Tools



The City's current GPS and Automatic Vehicle Location (AVL) tools, while useful for tracking plow movement, were not designed to measure final conditions on the ground. In a dense city with parked cars, obstacles and varying snow depths, one or even several passes, does not guarantee that a road, sidewalk, or bike lane is truly clear and safe.

4. Contract Design



The City's performance-based winter maintenance contracts are built to deliver efficient plowing and salting for routine storms but are less effective at addressing the unique demands of multiple major storms in rapid succession. The lack of specified snow removal resources, combined with no contractual obligation for stand-by capacity for removal, left gaps in accountability and hindered the City's ability to direct additional trucks, operators, or haulage when right-of-way storage was exhausted.

5. Snow Removal



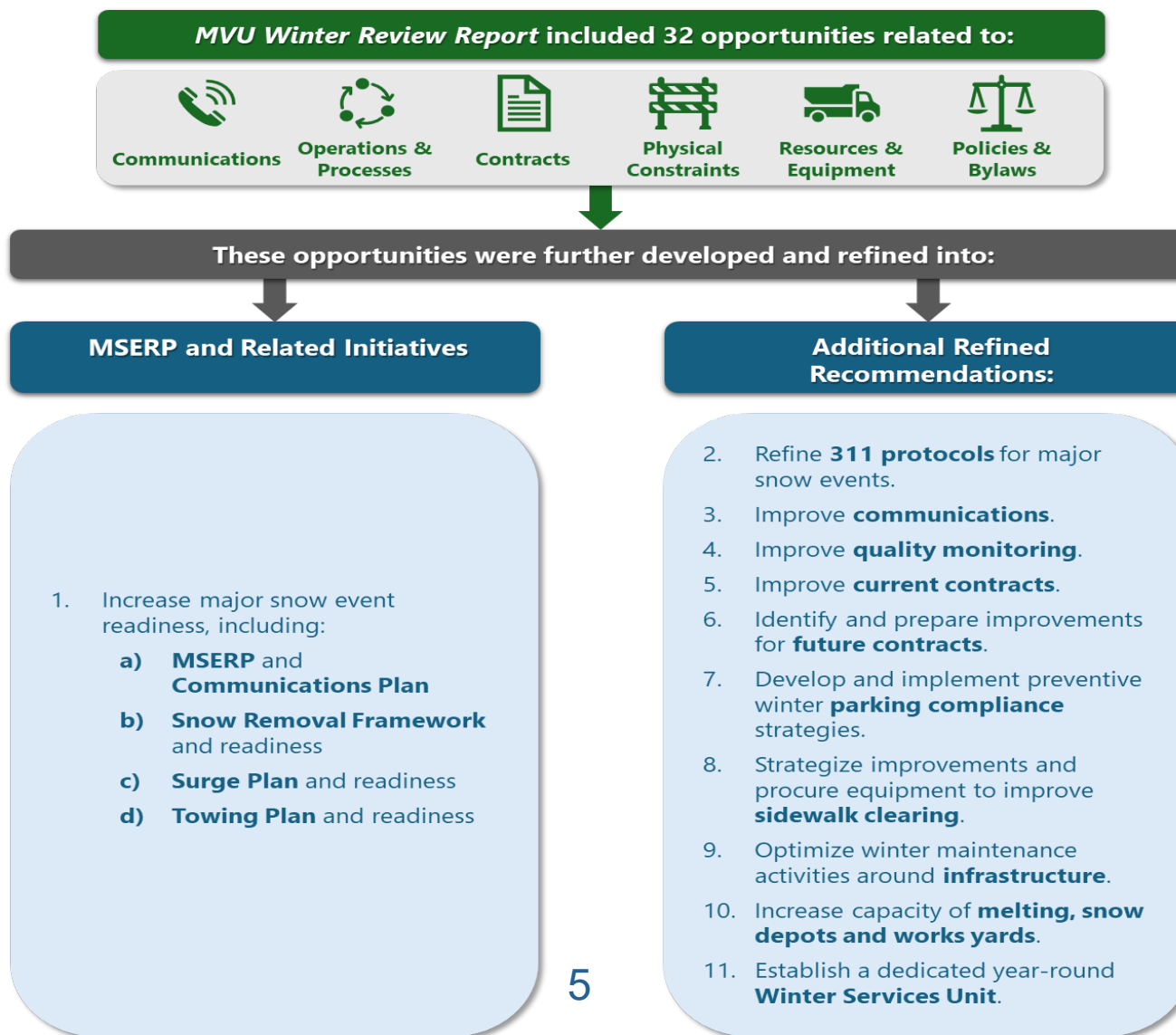
While the City's contracts and service levels comprehensively address salting and plowing operations for routine events, the City currently treats snow removal as an exceptional, ad hoc activity rather than an integrated part of storm response. Without formal service levels, clear triggers, and pre-arranged capacity, staff reactively plan snow removal once right-of-way storage is exhausted, leading to delayed mobilization and inconsistent outcomes.

6. Communication and expectations



The City's winter communications have historically focused on routine, reassuring updates rather than true 'emergency-style' messaging when severe events strike. Inaccurate or overly optimistic statements about progress, combined with the AVL system's incomplete picture, created frustration when residents and Councillors could see that streets or sidewalks were not actually clear.

Recommendations Development



A photograph of a city street during a heavy snow event. In the foreground, there is a large, deep pile of snow. Several red, curved metal bollards are partially submerged in the snow. In the background, a street is visible with some cars and pedestrians. A building on the left has a sign that says 'NAILS'. A street sign for 'St. Patrick St' is visible on the right. The overall scene is hazy and snowy.

Major Snow Event Response Plan

Mindset Shift

Changing the Mindset of a **Major Snow Event**
being a **Transportation-led** response
to it being a
Citywide Emergency Response

- Coordination of a city-wide Emergency Operations Centre (EOC) response will be managed through an Incident Management System, with formal roles & responsibilities and the City Manager leading the response
 - EOC leads the overall response to the incident
 - Transportation focuses on the operation of snow clearing and removal

MSERP Outline



1. Introduction / Purpose
2. Guiding Principles
3. Governance Model
4. Activation Criteria & Escalation Monitoring
5. Roles & Responsibilities
6. Operations Plan – Plowing and Salting
7. Operations Plan – Snow Removal
8. Communications Plan
9. Enforcement and Bylaw Adjustments
10. Resource Inventory
11. Health & Safety / Staff Welfare
12. Recovery and Debrief
13. Plan Administration
14. Appendix

Route maps, priority locations, contact directories, templates, inventories...

MSERP Escalation Triggers

	Forecast Monitoring	Phase 1: Storm Onset	Phase 2: Storm Escalation	Phase 3: Storm Ending	Recovery & Demobilization
 Condition	Major storm(s) with > 25 cm of snow accumulation forecasted	Storm begins Accumulation > 15 cm	Storm continues Accumulation > 20 cm and/or impacts escalate	Storm winds down Total accumulation > 25 cm *If snowfall resumes return to Phase 2	Roads, cycling, transit, and sidewalks are safe and passable and snow removal is nearing completion
 EOC	Mayor, Chair of IEC, and EOC notified - Increased monitoring by all divisions	Partial EOC activation Division reps on standby	GM of Transportation declares Major Snow Event and EOC Director fully activates EOC	EOC activation continues	EOC Director deactivates EOC once removal nears completion and normal operations resume
 Snow Clearing	Staff and contractors notified Fleet prepared	Plowing and salting initiated	Plowing and salting continues	Plowing and salting continues until complete, coordination of sidewalk and road clearing	Any additional minor clearing efforts
 Snow Removal	Staff and contractors notified Fleet prepared	Surge Capacity initiated – Contractors briefed	Snow removal deployed in areas with low storage capacity	Citywide snow removal begins Prioritize hospitals, TTC routes, shelters, downtown core 24/7 operations in 12-hr shifts	Snow removal continues until complete
 Parking Management	Tentative parking ban notice issued	Tentative parking ban continues	Upon declaration of Major Snowstorm Condition, parking on snow routes is prohibited	Parking on snow routes is prohibited – Partnering with TPA for neighborhood lot use	Parking on snow routes is prohibited until termination of Major Snowstorm Condition
 Services	TTC, Police, Fire, EMS, Shelter Support prepare contingency measures	Early impacts assessed (TTC service, shelter demand, emergency access)	TTC reroutes if necessary /announcements; shelters expanded, SW collection delays	Ongoing supports and tracking of impacts to core services	Conduct multi-division debrief
 Communications	Media Alerts, messaging about potential for disruption	Timely alerts, clear “what to expect,” and visible coordination across the City.	Communication cadence with Council and public to prioritize quality not quantity. Focus on status of work, what's next and how to stay safe.	Continue to communicate with focus on quality not quantity.	GM terminates Major Snowstorm Condition and Significant Weather Event Maintain communications until cleanup complete

Snow Removal Scenarios

A photograph of a city street during a snow removal operation. In the foreground, a yellow CAT skid steer loader is moving snow. Behind it, a larger yellow front loader with a snow blower attachment is clearing a large pile of snow. To the right, a large dump truck is dumping a load of snow. The background features modern city buildings and a clear sky. The text "Snow Removal Scenarios" is overlaid in the center.

Snow Removal

Scenarios include a range of clean up time and standby duration

Snow Removal Options	Total Estimated Annual Cost	Pros	Cons
Scenario 1: Stand-Alone Contract – Haulage Included	\$104 M - \$130 M (incl. \$68 M - \$94 M in standby)	• Full readiness for major events through full season (including trucks) • Reliability of response is maximized, with all required equipment on standby	• Highest annual cost; low value for money in mild winters (equipment may sit unused) • Limited storage capacity and market capacity
Scenario 2: Stand-Alone Contract – Haulage not Included	\$41 M - \$50 M (incl. \$13 M - \$20 M in standby)	• Lower cost than Option 1 • Dedicated removal contractors and equipment remain on standby throughout the core winter period	• Requires tight coordination between the removal contractor, the City's clearing contractor, and the City's haulage provider • Haulage availability is not guaranteed; may constrain removal rate
Scenario 3: Existing Model with Improvements until 2029	\$24 M (incl. \$4 M in standby)	• Balances cost and risk effectively, offering good value for money • Allows for the current improvements to take root, and for staff to test/learn from them before committing to another long-term contract • No coordination required between clearing contractor and removal contractor	• Limited capacity during back-to-back storms due to shared clearing/removal resources • Haulage availability is not guaranteed; may constrain removal rate

A photograph of a snowy city street. In the foreground, a yellow snowplow is partially visible on the right side. To the left, there is a glass bus stop shelter with a blue sign that reads "Consilium Pl". The street is covered in a thick layer of snow, and there are large piles of snow on the sidewalks. In the background, several tall city buildings are visible under a grey, overcast sky. A red and white utility pole stands near the bus stop.

2025 – 2026 Winter Maintenance Improvements

Executive Committee

November 4th, 2025

Presented by: Myles Currie, Acting Director, Winter and Seasonal Services

Status of MVU Recommendations

#	Recommendation	Status
1A	Develop and Implement a Robust Major Snow Event Response Plan	Completed by December 2025
1B	Develop a Snow Removal Framework and Readiness	Completed by December 2025
1C	Develop a Surge Plan and Readiness	Completed by December 2025
1D	Develop a Towing Plan and Readiness	Completed by December 2025
2	Refine 311 Protocols for Major Snow Events	Completed by December 2025
3A	Communicate Significant Weather Events as Emergencies	Completed
3B	Communicate Results Rather than Effort	Completed
3C	Improve Consistency of Councillor Communications	Completed by December 2025
4	Improve Quality Monitoring, Tools, and Deficiency Reporting	Ongoing this season and future seasons
5	Negotiate Improvements with Current Contracts	Ongoing this season

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#	Recommendation	Status
6	Identify and Prepare Improvements for Future Winter Maintenance Contracts (2029)	Ongoing this season and future seasons
7A	Improve Public Notifications of Parking Restrictions	Ongoing this season
7B	Enhance Parking Bylaws	Ongoing this season and future seasons
8A	Strategize Starting Times for Sidewalk Plowing	Completed
8B	Explore Alternate Options for Sidewalk Clearing Equipment	Ongoing this season
8C	Increase Spares for Sidewalk Clearing Equipment	Completed
9	Develop Winter Maintenance Best Practices for Infrastructure	Ongoing this season and future seasons
10A	Conduct a Depot Rationalization and Snow Dump Site Study	Future seasons
10B	Improve Operability and Procure New Melting Technology	Ongoing this season and future seasons
11	Establish a Dedicated Winter Services Unit	Completed

Key Improvements for the 2025 – 2026 Season Completed

- **311 hold period discontinued**, allowing the public to submit service requests anytime during a winter event, supporting early identification of service issues and improving customer service.
- **Year-round Winter Services Unit** enhancing operational preparedness, contract management, inter-agency coordination, and continuous improvement.
- **Earlier start to proactive snow removal** at high-priority locations to preserve snow storage capacity for future events.

Key Improvements for the 2025 – 2026 Season

Major Storm Response Activation & Coordination

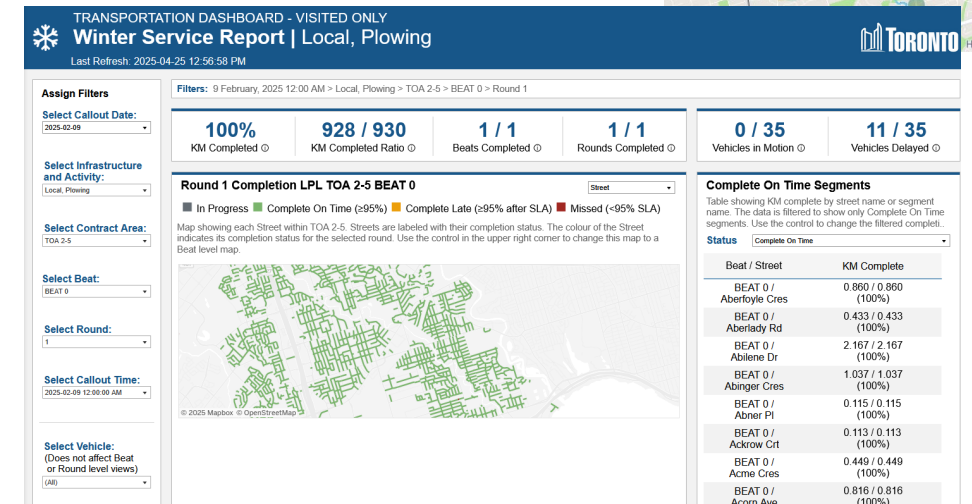
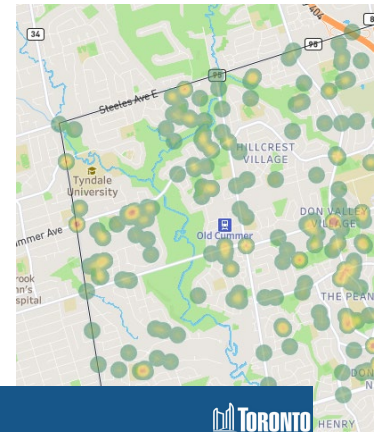
- **Surge staffing and resource mobilization** (“all-hands-on-deck”), including redeployment where appropriate.
- **Streamlined operation sequencing**, prioritizing road and windrow plowing before sidewalk clearing to reduce rework and speed completion.
- **Improved vehicle management** to support snow removal operations:
 - Traffic Agents reassigned to assist with parking enforcement
 - Toronto Parking Authority app notifications, stickers on parking metres to advise of parking restrictions on snow routes
 - Use of Toronto Parking Authority lots for resident parking during snow removal operations
 - Designation of additional major snow routes and installation of new signs



Key Improvements for the 2025 – 2026 Season

Ongoing

- **Improved contractor performance monitoring** through GPS dashboard and real-time tools, with enhanced reliability and accuracy.
- **Enhanced field verification** using longer audit segments, traffic cameras, and real-time monitoring to ensure service standards are met.
- **Expanded fleet and maintenance** with additional equipment, pilot sidewalk plows, mobile technicians, and extended garage hours.



Winter Communications Plan

- **Comprehensive communications** pre-, during, and post-event, including operational updates, public education, and real-time messaging.
- **Tailored strategies** for typical and major snow events, focused on results rather than effort.
- **Timely updates for public and Members of Council** with clear visuals for constituency communications.
- **Clear, consistent 311 messaging** across all touchpoints, including automated greetings, social media, and online service request portal.

Next Steps

- Present results of the **third-party forensic audit** to Executive Committee / City Council in December 2025
- Evaluate performance after each season and **implement improvements** as needed
- **Initiate design and procurement** of future Winter Maintenance contracts