

## History of Snow and Ice Program 2016-2021

2016	<ul style="list-style-type: none"> <li>● Corporate restructuring resulted in the formation of a new City Operations department, appointment of new Deputy City Manager and staffing changes. Parks and Roads Services (PARS) branch was created by integrating the former Roadway Maintenance section with the former Parks Operations section. <ul style="list-style-type: none"> <li>○ New Infrastructure Operations section became responsible for Snow and Ice Control (SNIC) SNIC operations (previously divided between Roadway Maintenance and Parks Operations).</li> <li>○ New Infrastructure Maintenance section became responsible to preserve/extend the life of infrastructure.</li> </ul> </li> <li>● The <a href="#">Winter Street Sand Recycling and Mixing Program audit</a> highlighted issues regarding program cost-effectiveness and management. The program was discontinued. Council motioned Administration to present options to manage used winter street sand. A calcium chloride pilot was implemented (three road sections).</li> </ul>
2017	<ul style="list-style-type: none"> <li>● <a href="#">Council report</a> on potential improvements to the SNIC Policy, including winter maintenance practices, service level improvements based on public engagement, and anti-icing (2016-17 pilot). Council directed Administration to further explore use of anti-icing agents, river water monitoring results and potential policy amendments.</li> <li>● Anti-icing pilot expansion included more roads, bus stops, bike lanes and sidewalks, with additional changes in application guidelines for salt-sand mix, increases in mechanical plowing and reduction in sand use.</li> </ul>
2018	<ul style="list-style-type: none"> <li>● Two council reports presented in response to 2016-17 motions: <ul style="list-style-type: none"> <li>○ <a href="#">Options to Manage the Used Winter Street Sand</a> addressed the sand recycling audit recommendations.</li> <li>○ <a href="#">Alternative Practices to Address Snow and Ice Control</a> included preliminary results of the 2017-18 anti-icing pilot, proposed amendments to the SNIC Policy, river water monitoring results, and environmental and safety studies planned for 2018-19 (environmental, materials, and traffic safety).</li> </ul> </li> <li>● Council approved the updated SNIC Policy and voted to continue the anti-icing pilot, which expanded (2018-19).</li> </ul>
2019	<ul style="list-style-type: none"> <li>● Winter Shift Structure project was initiated to improve staff schedules, staffing and equipment utilization, and service levels. Feedback was gathered from staff on the proposal of changing 8-hr shifts to 12-hr rotating shifts.</li> <li>● Snow and ice operations were split into two teams to improve service delivery: <ul style="list-style-type: none"> <li>○ Roadways (freeways, arterial, collector and residential roads, etc.)</li> <li>○ Active Pathways (sidewalks, bike lanes, bus stops, stairs, facilities etc.)</li> </ul> </li> <li>● Active Pathways began to measure performance against Service Level Agreements in the Policy.</li> <li>● Multiple SNIC related Council reports were presented to <a href="#">Community and Public Services Committee</a> including: updates on research and monitoring studies from the anti-icing pilot, public engagement on various elements of the SNIC program, volume of SNIC related calls received by 311, and complaints process for snow and ice on residential sidewalks that are maintained by residents</li> </ul>

- Active Pathways staff voted to change to a straight 10-hour shift.
- Administration presented a [report](#) with results from monitoring studies and recommended to continue use of anti-icing to help achieve bare pavement. Council voted to discontinue use of anti-icing on roads.
  - As discussed at Council, anti-icing agent is still currently used on Priority 1 divided bike lanes and active pathways inventory. It is also a pre-wetting agent added to loose sand/salt mix applied on roadways by sanders. The pre-wetting agent allows sand and salt to better stick to a hard snowpack.
  - Administration was asked to return in June 2020 with additional measures to achieve a safe winter road surface without the use of salt, calcium chloride, and sand.
- A letter of complaint purportedly authored by 23 PARS employees was sent to City Council, the contents of which was the impetus for the Snow and Ice Audit.

**2020**

- [Verbal update to Council](#) after concerns were raised about challenging residential road conditions in February.
- Motion made to include windrow removal options in an upcoming report.
- The SNIC program audit was launched.
- Two [council reports](#) were presented:
  - Alternative options for SNIC, including a new citywide parking ban, program strategic framework, and options with costing for service levels and ice control products.
  - Cost of clearing the prioritized bike lane network. A motion to de-prioritize bike lanes was defeated.
- Implemented 12-hr rotating winter shifts for Roadways staff.
- [Council reports](#) included results from the 2019-20 monitoring program and unanimous passing of the new parking ban bylaw. The two-phase parking ban was introduced for the 2020-21 season.

**2021**

- SNIC Audit results presented to Council. Administration accepted all [12 recommendations](#) from the City Auditor.
- Council approved [SNIC Policy Refresh](#) (C409K). Operational content was moved into a new [SNIC Procedure](#) document. Minimal changes in service levels; updates reflect clearer language, descriptions and definitions.
- In August, Council directed Administration to bring a report identifying options for SNIC enhanced service standards and resources needed to support these options (due April, 2022).
- Updates and enhancements to Communications plan, tools and web page updates were completed for the start of the 2021-22 SNIC season. Budget updates and approvals were completed in December.
- Roadways began to measure performance against Service Level Agreements in the Procedure.
- Six out of twelve Audit recommendations were closed, including process improvements to Standard Operating Procedures, development of Key Performance Indicators, monitoring dashboards, and benchmarking plans.
- In December, Council directed Administration to undertake a bare pavement blading pilot project in residential neighbourhoods until April 30, 2022.