

## Staff Report

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**Report To:** Operations Committee  
**Report From:** Lara Widdifield, Director of Public Works and Engineering  
**Meeting Date:** June 26, 2025  
**Report Code:** OP-25-030  
**Subject:** 2023-2025 Winter Control Operational Update

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### Recommendations:

THAT in consideration of Staff Report OP-25-030 respecting 2023-2025 Winter Control Operational Update, the Operations Committee recommends that City Council receive the report for information purposes.

### Highlights:

- The City maintains documented compliance to the Minimum Maintenance Standards, achieving good public safety and successful defence against claims.
- Material usage during the 2022/2023 winter season was approximately 12% less than the average from 2018/2019 to 2022/2023. The yearly deviation is significantly a function of weather. The ten-year trend is downward, primarily due to changes in methodology, as discussed in the attached report.
- Spring Cleanup Activities (primarily street and sidewalk sweeping and landscaping repairs) are somewhat ahead of schedule.
- Public Works participation in Special Events and other activities is summarized in the attached report.

### Strategic Plan Alignment:

This report supports the delivery of Core Service.

## **Climate and Environmental Implications:**

This supports the objectives of the City's Corporate Climate Change Adaptation Plan by creating conditions to minimize health and safety risks.

Climate change models predict more intense, less frequent precipitation patterns and warmer shoulder seasons (fall and spring). This will lead to more extreme snow events and potential spring flooding due to runoff. Swinging daytime highs and nighttime lows exacerbate icing conditions as snow melts during the day and freezes at night, creating slippery sidewalks and roads. It behooves the City to be prepared with operational plans for these weather patterns, as the trends are already apparent compared to 50 or even 30 years ago.

## **Previous Report/Authority:**

[Project 5.b.1 – Winter Maintenance Review](#)

## **Background:**

In prior years, various springtime updates to Council have summarized the various aspects of winter control and status. This report was produced to standardize the format, and to ultimately develop an annual report format for Public Works activities that resemble those already generated for the Water and Wastewater business units.

The City has 282 lane-kilometres of road and 106 kilometres of sidewalk.

Owen Sound experiences an average annual snowfall of 330cm, and has difficult topography from the perspective of winter maintenance, with 15 hills.

Currently, the City maintains most sidewalks throughout the city and operates four sidewalk plow routes to undertake this. Due to the prioritization of sidewalks and the nature of snow events, it can take several days to complete a response cycle, especially if the snow depth exceeds the capabilities of the blade and the blowers must be used (typically approximately 24 inches but less on monolithic/curb-face sidewalks covered in road plow cast-off). The sidewalk plows can only travel 4km/h when the blowers are used, so it can take an entire workweek to complete one cycle. With back-to-back snowfalls and significant weather events, it can be difficult to catch up.

## Analysis:

### Material Usage by Season: 2012/2013 to 2022/2023

The table below summarizes the material usage (sand and salt), indexed by the present value to account for inflationary pressures. Note that there were two changes to maintenance practices implemented within this timeframe to improve efficiency and reduce costs:

1. Between 2013/14 and 2014/15, the City switched to treated (green) salt, specifically Cargill's "Clearlane" de-icer. According to Cargill's manufacturer literature in Attachment 2, Clearlane de-icer is pre-wetted, so it begins working right away, continues melting ice at lower temperatures, and has less scatter than rock salt. It is less corrosive and has a reduced environmental impact due to its lower sodium chloride content compared to regular salt. Refer to Attachment 2 for the manufacturer's info sheet.
2. Between 2017/18 and 2018/19, to reduce material costs Public Works began adding a significant percentage of sand to the sand/salt mix. While the data suggests that the addition of sand to the de-icer has had a cost-buffering effect, it is difficult to say so with certainty, as the years available for use as a baseline are very limited. Refer to Table 1, below, and Attachment 1.

Table 1: Sand and Salt Purchases

YEAR	SALT TONNES	SAND TONNES	SALT-PV 2025	SAND-PV 2025	TOTAL PV
2012-2013	7397	Unknown	\$815,919	Unknown	\$815,919
2013-2014	12569	Unknown	\$1,386,411	Unknown	\$1,386,411
2014-2015	8316	Unknown	\$917,288	Unknown	\$917,288
2015-2016	2930	Unknown	\$323,191	Unknown	\$323,191
2016-2017	5212	Unknown	\$574,904	Unknown	\$574,904
2017-2018	5755	Unknown	\$634,800	Unknown	\$634,800
2018-2019	4195	2404	\$473,196	\$54,691	\$527,887
2019-2020	3441	2130	\$388,145	\$48,458	\$436,602
2020-2021	2297	1570	\$259,102	\$35,718	\$294,819
2021-2022	4155	2854	\$468,684	\$64,929	\$533,613
2022-2023	2987	1972	\$336,934	\$44,863	\$381,797
2023-2024	3146	2000	\$354,869	\$45,500	\$400,369
2024-2025	5550	3000	\$684,773	\$68,250	\$753,023
<b>Avg 2018-25</b>	<b>3682</b>	<b>2276</b>	<b>\$423,672</b>	<b>\$51,773</b>	<b>\$475,444</b>

**Avg all yrs: \$613,894**

### Table Notes:

2012-2014: Only non-treated salt applied. Average cost = \$1,101,165

2014-2018: Only treated salt applied. Average cost = \$612,546

2018-2025: Treated salt and sand blend. Average cost = \$423,672

Unknown cells mark when data was not available.

Salt and Sand PV 2025: Present value at 2025 prices (\$112.80/tonne salt, \$22.75/tonne sand).

Current seasonal allotment of salt from supplier = 6000 tonnes.

## **2023-2024 Statistics**

### Downtown Snow Removal

When snowbanks in the downtown area exceed a reasonable size to permit safe roadside parking and pedestrian corridors, the City implements a load and haul process.

During winter 2023/24, there was one single-day "Cleanup Event" for snow hauling on Jan 25, 2024, for which the City hired third-party trucks to assist in hauling snow. Staff were able, partially due to the intermittent nature of this winter, to "plug away" at downtown snow removal with their own forces and equipment as time and weather permitted.

### Significant Weather Events

During particularly severe storm events, it may become impossible to address all roads and sidewalks within the timelines set by the MMS. Declaring a Significant Weather Event serves as the regulatory mechanism to inform the public of this situation, suspending the usual MMS timelines. MMS timeline requirements under normal operation include (for example):

- Six (6) hour response time for a Class 2 Road
- Twenty-four (24) hour response time for a Class 5 Road
- Forty-eight (48) hour response time for sidewalks

There were three multi-day Significant Weather Events in the 2023-2024 season:

- Nov 27/23 - Nov 29/23 (3 Days Duration)
- Feb 17/24 - Feb 20/24 (3 Days Duration)
- Feb 28/24- Feb 30/24 (3 Days Duration)

### Winter Clean-Up

2024 was a late spring. Winter clean-up began a full two weeks later than in 2023, on April 10, 2024.

Sweeping:

- Deployment begins with sidewalk plows equipped with a power broom attachment. Boulevards and sidewalks are swept to the gutter, to be cleaned on further passes with the road sweeper.
- Day shift sweeps the Upper East side, 4 Lane Roads and paved “Devil Strips” \*
- Afternoon shift continues sweeping operations around all roadway islands, sweeping debris on the traffic islands.
- The Afternoon shift also sweeps around light standards in the downtown core to prepare for nighttime sweeping operations.
- Midnight shift sweeps the DRP areas and Devil Strips. Washing of sidewalks around City Hall and the Market building.

\*“Devil Strip”: AKA “Kill Strip” as this area between the curb and the back of the sidewalk, if it is grass, often gets killed off due to road salt, so it is typically a paved strip on major class roads. If paved, it is swept.

#### Landscaping Repairs from Plow Damage

Landscaping Repairs from Plow Damage were even later than in 2023, by a full calendar month, beginning on April 26, 2024.

- Peeled sod repairs can be undertaken as soon as the ground is thawed, but seeding cannot be done until temperatures are favourable for germination (i.e. nighttime low temperatures consistently above freezing). Work was managed using a work order list of reported and observed damage.
- Sod repair involves flipping over the peeled sod and packing it down on lawns and boulevards. Seeding involves adding topsoil as needed, raking to smooth the grade and create a surface for the grass seed, and application of the grass seed. Watering is typically left to nature or tended by the adjacent resident (preferred scenario for maximum catch).

### **2024-2025 Statistics**

#### Downtown Snow Removal

Winter had a late start for the 2024-2025 season but made up for lost time. Three load and haul events were required this past season:

- Jan 15, 2025
- Feb 6, 2025
- March 2, 2025

After several issues with the public driving through the road closures and impeding progress and getting stuck during the first snow removal event, Staff subsequently experimented with attempting a load and haul during the day under closed road conditions. This was deemed impractical, as it was impossible to control the flow of people entering and exiting the buildings along the road, despite any closures and crowd control measures. Curious onlookers approached too closely, posing safety concerns and causing unnecessary mental stress for the operators. The third removal event was completed during the night with the assistance of contractors.

### Significant Weather Events

While this was not a winter with an unusual quantity of snowfall, it was a winter with relentless snowfall. Between January 12th and 28th alone, Owen Sound received over 112cm of snow; that's 1/3 of the quota for the entire year in about 2.5 weeks. The snowfall slowed somewhat in February, but there was still over 400cm between the start of winter weather in December and February 25<sup>th</sup>, or 267cm in the two months since January 1<sup>st</sup>.

- Nov 29/24 - Dec 3/24 (6 Days Duration)
- Dec 6/24 - Dec 10/24 (5 Days Duration)
- Dec 12/24 - Dec 14/24 (3 Days Duration)
- Jan 4/25 - Jan 8/25 (5 Days Duration)
- Jan 18/25 - Jan 31/25 (**14** Days Duration)
- Feb 12/25 - Mar 10/25 (**23** Days Duration)

### Winter Clean-Up Progress

2025 was a "slightly less late" spring than 2024. Winter cleanup began two weeks earlier than in 2024, on April 3, 2025. Due to extreme wet weather, however, the leaf and yard waste compost site had a very late opening on April 14<sup>th</sup>; normally, Staff aim to open the site on the first Monday in April.

This spring, the washing of sidewalks around City Hall and the Market building was undertaken in a collaborative exercise with Parks and Open Spaces. Both work units required road closures, so Public Works went in first on most blocks to wash the sand and debris from the boulevards, to subsequently be swept by the street sweeper. Then Parks would come in and install the decorative banners. One block was done in the reverse order, as Parks had sprayed herbicide prior to the washing operation, and it would have been imprudent to wash the sidewalks at that time.

### Landscaping Repairs from Plow Damage

As noted above, the ground was slow to thaw and dry out enough to make landscaping repairs a viable venture. Further, due to the heavy snowfalls, there was an unusual amount of sod damage to restore. As such, Staff abandoned the typical list of reported sod damage locations and instead a dedicated crew worked full time on landscaping repairs, going street by street. This work began on April 28, 2025.

### **Additional Activities**

#### Special Events:

Public Works provides support for various events through the deployment of traffic controls, signage, barricades and detour routes. A summary is provided below.

#### Events During Winter Control Season:

- Remembrance Day (barricades, road closure, parking closure, signage)
- Santa Claus Parade (barricades, road closure, parking closure, signage)
- Holiday Magic (barricades, road closure, parking closure, signage)

#### Non-snow-related duties:

There are many activities undertaken during the winter season when plowing operations are not underway.

- Parking lot snow removal (load and haul)
  - Downtown cleanups (load and haul)
  - Cul-de-Sac and Dead-End snow removal (load and haul)
  - Removal of snowbanks for visibility at corners (load and haul)
- Note: For the 2024-2025 season, the load and haul of roadside windrows was required where the road width was compromised such that parking or the passage of vehicles would be restricted. Load and haul of snow windrowed onto monolithic (curb-face) sidewalks was also necessary.
- Vehicle and equipment maintenance
  - Shop maintenance/cleaning
  - Collision cleanup
  - Pothole repair with hot mix or cold patch
  - Sign repair/replacements (Retroreflectivity assessment is scheduled annually in May)
  - Clearing catch basins
  - Sewer repairs/heavy equipment support

- Other emergencies as needed

## **Financial Implications:**

The Public Works Winter Maintenance-related budget was \$1,999,590 in 2024 and reduced by approximately 9.3% to \$1,864,321 in 2025.

The record of winter control material (sand and salt) usage is used to optimize operations and guide future budgeting. This information will be used in formulating a plan for subsequent phases of the Winter Maintenance Service Review Project.

## **Communication Strategy:**

Unlike the water and wastewater industry, no specific provincially mandated report template exists for an annual report. However, this report is being provided as a continuous component of the Winter Maintenance Service Review project and to offer insight into the operations and value contributed by this work unit.

## **Consultation:**

The Patrol Coordinator, Public Works Administrative Assistant, and Public Works Lead Hands were consulted in preparing this report.

## **Attachments:**

1. Attachment 1 - Winter Control Material Costs 2012-2025
2. Attachment 2 - Cargill Clearlane De-icer Manufacturer's Literature

## **Recommended by:**

Lara Widdifield, Director of Public Works and Engineering

## **Submission approved by:**

Tim Simmonds, City Manager

For more information on this report, please contact Lara Widdifield, Director of Public Works and Engineering, at [lwiddifield@owensound.ca](mailto:lwiddifield@owensound.ca) or 519-376-4440 ext. 1201.