

Report to Council



Date: November 28, 2022
To: Council
From: City Manager
Subject: Snow & Ice Control Update
Department: Infrastructure Operations

Recommendation:

THAT Council receives for information, the report from Infrastructure Operations dated November 28, 2022 with regard to the Snow & Ice Control Update.

Purpose:

To provide Council with an overview of the Snow and Ice Control program.

Background:

The City of Kelowna delivers winter maintenance services for the following mobility network infrastructure:

- 1800 lane km of roadways
- 440 km of sidewalks
- 390 km of bike lanes
- 40 km of multi-use corridors
-

Within this network there are 805 cul-de-sacs & and dead-end streets, 638 bus stops, close to 40,000 driveways and 117 parking lots. Service is also provided to some public laneways that provide access for fire and solid waste removal vehicles. We do not maintain private roads and lanes within residential and commercial properties. Snow and Ice control measures for highways 97 and 33 are provided by AIM.

The City of Kelowna begins preparing for winter operations after the September long weekend. The team reviews past years performance and issues, plans equipment readiness and conversion to winter operations and supplier renewals. On November 15 of each year, a shift change notice is issued to the various teams which allows us to run two shifts (vs the single day shift) starting December 01 (two-week notification period as per the CUPE contract).

The resulting shifts are as follows:

- 04:00-12:00 - 4/5 staff who conduct road inspections and provide winter maintenance when required.
- 07:00- 15:30 – 30/35 staff who provide winter maintenance services such as truck plowing, sanding, small equipment operation, hand shoveling.
- 15:30 – 00:00 – 9/10 staff with similar tasks as above.

During snow events this staff schedule structure allows the City to have personal in-service over 24-hour periods responding to the weather and utilizing equipment throughout the day. During days there are no snow maintenance needs, the dayshift crew can return to their regular duties such as pothole patching, crack sealing and general maintenance.

The City has a diverse fleet of vehicles at its disposal to use for winter maintenance. Most get converted from regular duties to winter service. The fleet consists of:

- 13 Tandem Axle trucks with slip-in sander and belly blade plow
- 4 Single axle Trucks with rear sander and belly blade plow
- 3 Tandem axle trucks with de-icing liquid rear spray bar and belly blade plow
- 5 One-ton trucks with front mounted blade plow and rear sander
- 8 trackless tractors with brush and/or front plow (for city maintained sidewalk service)
- 3 graders
- 2 loaders for loading sand/salt into the trucks.
- Plus numerous small hand operated tools and equipment

Normally 5 or 6 additional tandem axle sander/plows are available (including operator) from private companies as well and one (1) one-ton leased unit with front mounted blades and sander. They normally convert their equipment on or around the 15th of November. The City also hires dump trucks for snow removal when require such as last winter's downtown snow removal actions.

The 2022 budget for snow and ice specific service is 2022 Budget \$ 2,185,000. We have averaged an additional \$200,000 of spending which is funded by reserves or savings in other areas of operations.

Discussion:

Of note is that the maximum allowable working hours per week are governed by the national safety code (the same as truck drivers) and not BC's employment standards. As such, working hours are restricted to 70 hours per week with a minimum 36-hour rest period following those 70 hours. This maximum allowable service becomes an issue during prolonged winter storm events such as late Dec 2021 into January 2022.

The City's weather response is guided by weather forecasts from Environment Canada. One of the challenges this year is the absence of availability of the Environment Canada weather Radar at Silver Star. The radar is heavily relied upon by the foreman to help fine tune the response based on observed and anticipated conditions. Environment Canada currently projects restoration of service December 5. The City employs a third-party forecasting service that provides daily updates at 11:00 am. We also have

reached out to a local forecasting team to provide that local interpretation of the pending weather systems that would allow our teams to better target and plan their response.

New this winter season, during significant weather events we hold regularly scheduled operational updates via teleconference 2 to 3 times per day. The audience includes local organizations such as KFD, Transit, RCMP, Fortis, SD23 etc. During these calls we share the weather forecast as well as progress updates on routes, SNIC strategies, equipment availability and treatment stockpiles.

Conclusion:

The City of Kelowna delivers a winter maintenance program that strikes a balance of creating good winter surface conditions, in a timely manner with balanced staff and equipment levels that do not unduly impact property taxes.

Considerations applicable to this report:

Existing Policy: Council Policy 332

Legal/Statutory Authority: Traffic Bylaw 8120

Legal/Statutory Procedural Requirements: Code of practice for Environmental Management of Road Salts(ECC).

Considerations not applicable to this report:

Financial/Budgetary Considerations:

External Agency/Public Comments:

Communications Comments:

Submitted by: Geert Bos, Infrastructure Operations Department Manager

Approved for inclusion: M. Logan, Infrastructure General Manager

Appendix A – SNIC Presentation

cc: Divisional Director, Financial Services
Divisional Director, Corporate Strategic Services