



**RPT 23-110**

**TITLE:** GIS Snow Management Public Interactive Map

**DATE:** **March 17, 2023**

**TO:** Planning Advisory Committee

**PUBLIC:** X

**INCAMERA:**

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**RECOMMENDATION:**

That the input provided by the Planning Advisory Committee be considered in the development of a Public Interactive Snow Management Map

**TOPIC & PURPOSE:**

To educate the Planning Advisory Committee on some of the standard procedures involved with snow management and to seek feedback in the development of an interactive GIS snow removal map.

**BACKGROUND:**

Public Snow communications has historically been limited to fairly simple updates on an 'as needed' basis or in response to concerns and complaints from residents or City Council. Over time, Administration has developed more consistent and coherent messaging to capture snow management operations.

In the winter season of 2021/2022, Prince Albert saw record total snowfall amounts as well as very frequent snowfalls, leading to very large volumes of complaints which regularly leads to an increase in the amount of information communicated to residents of Prince Albert, and City Council.

At the beginning of the 22/23 Winter Maintenance season, these communication were identified as an important focus for the Roadways Division. A newly approved Snow and Ice Control Policy also presented an opportunity to pass along important key messages from the policy for residents and City Council.

Administration has taken steps to improve communications on residential grading areas, snow lifting areas, etc. and providing day to day updates and information to the public by utilizing a Road Closure Map which can be found on the City website [here](#)

**PROPOSED APPROACH AND RATIONALE:**

Currently the city uses the above referenced Road Closures map to inform the public when city roads will be cleared of snow. This map was not purpose built to communicate snow management activities but administration is able to use some of its functionality to relay relevant information to residents and City Council.

The public may currently report snow concerns through 'report a concern' process or by phone call. These methods of communication also takes up city resources as we try to provide an explanation on the snow management plan. For example, the following concerns will be able to be provided in a simple interactive map:

- When will my road be cleared?
- When will street be lifted?
- How long will it be until my neighborhood is completed after a major snow fall?
- What priority is my road?

There is also a Snow Plowing Operations section on the City Website which can also be found [here](#), which can also be more streamlined via the interactive map.

- The pdf maps are static and rely on the technician to provide an updated copy to communications to be updated on the website.

The GIS Supervisor is now leading the development of a tool to provide improved public information on Snow Maintenance activities. By developing an interactive Road Management map, we will be able to present improved information to the public in a more efficient and effective manner.

This Interactive Snow Management map will provide an interactive tool for the public to track snow management with the following additional benefits:

- Reduce phone calls and the use of our "Report a Concern" process to free up city resources.
- Provide a one stop shop for the user to get all the information they need with regards to snow management. The map will have a link to the "Report a Concern" process if they still choose to.
- The map will be dynamic and always up to date. There will be no need to provide pdf map updates to communication.

There are a few examples of City's that have very effective snow management GIS applications that can help guide this discussion, such as:

**City of Saskatoon** – Click [here](#)

This map is very easy to read and the zones can easily be highlighted and updated for when snow removal is to be expected. These zones are used when priority 1 & 2 zones are completed and priority

3 (residential) roads are to be scheduled. Also the green check marks are a great visual to indicate that a zone has been completed. As an interactive map the user can turn areas off and on, zoom to their street to find out what zone they are in and get the status.

**City of Brandon** – Click [here](#)

Click on the **street clearing** tab

You will notice that they highlight the streets to indicate the status of a road. The legend to the right provides a clear explanation of the status and the color scheme. They also provide links to parking ban notifications and snow removal information. Providing the one stop shop. The map is interactive for the user to find additional information. Expand the layer list to turn layer on and off. Expand the Routes, click on a route and the map will zone to the route and a pop up will appear to provide additional information. Do the same for the zones section. At the top there is an info widget to provide current work



At the bottom of the legend, they provide Zone map pdf's so the user can download a pdf of their zone and the priority routes.

**Strathcona County** – Click [here](#)

This is a GIS interactive map to indicate the current status of snow removal. This map is updated when snow removal is in progress. The user can search their street and click on it to get a pop up of the status. They provide links to other resources at the top and the info widget (i in the far left upper corner) provides additional information. Again providing the one stop shop. This is ESRI product which is our in house GIS software.

**Please take some time to explore these three GIS maps and be prepared to discuss your likes/dislikes and what you would like to see for Prince Albert.**

#### **CONSULTATIONS:**

The GIS Supervisor is working closely with the Department of Public Works and Communications in the development of this interactive map.

#### **COMMUNICATION AND/OR ANNOUNCEMENT PLAN:**

Once this Interactive Mapping Application is complete, Administration will work closely with the Communication division to develop a robust Communications plan which may include Social Media, Mail outs, video's etc.

**POLICY IMPLICATIONS:**

By developing this interactive GIS map, Administration is able to carry out the intent of the snow and ice control policy more effectively.

**OTHER CONSIDERATIONS/IMPLICATIONS:**

There are no Financial or privacy implications and no further options to the recommendation.

**STRATEGIC PLAN:**

In developing an interactive GIS snow management map for the public, administration is finding innovative and creative ways to communicate to the public which will benefit our diverse community needs.

This type of technology advancement is a specific area of focus identified by Prince Albert City Council which enables us to deliver professional governance to our citizens.

**OFFICIAL COMMUNITY PLAN:**

Section 7 of the Official Community Plan identifies a number of goals and policies meant to enhance a transportation system that supports the economy and contribute to the quality of life for our residents.

**PUBLIC NOTICE:**

Public Notice pursuant to the Public Notice Bylaw No. 24 of 2015 is not required.

**PRESENTATION:**

Visual presentation by GIS Supervisor Heather Wilson and Operations Manager Jeff DaSilva

Written by: Director of Planning and Development

Approved by: Director of Planning and Development & Operations Manager & City Manager