

**TO: Chair and Members of the Source Protection Committee Meeting
#4/24, October 23, 2024**

**FROM: Behnam Doulatyari, Senior Manager, Watershed Plans and Source
Water Protection**

RE: Proposed CTC Source Protection Plan Salt and Snow Policies

RECOMMENDATION

IT IS RECOMMENDED THAT the CTC Source Protection Committee receive the staff report Proposed CTC Source Protection Plan Salt and Snow Policies for information.

AND FURTHER THAT the CTC Source Protection Committee endorse the proposed Salt and Snow Policies consistent with the direction outlined in this report.

AND FURTHER THAT staff be directed to incorporate the new policy text as part of a forthcoming amendment to the CTC Source Protection Plan, under Section 36 of the *Clean Water Act, 2006*.

EXECUTIVE SUMMARY

The 2021 Technical Rules changed certain circumstances related to salt and snow threats. Updates are proposed to SAL-7 and SNO-1 to reflect these changes as well as implementation challenges highlighted by Risk Management Officials. This includes aligning prohibition and Risk Management Plan policies for handling and storage of road salt with exposed and partial covered circumstances accordingly.

Background

Task 33 of the 2018 Section 36 workplan for CTC Source Protection Region requires update of the CTC Source Protection Plan policies to the latest Technical Rules. The 2021 Technical Rules and Table of Drinking Water Threats included changes to application of road salt (Threat #12), handling and storage of road salt (Threat #13), and storage of snow (Threat #14), which are summarized in **Attachment 1**.

Please note, the scope of this report is limited to compliance with the 2021 Technical Rules. Recommendation for more comprehensive updates to CTC salt and snow policies as part of our phased water quality project will be provided to the committee at a later date.

Policy Development

Consultation

CTC staff presented their analysis of the new area-based method to the CTC Implementation Working Group on June 29, 2023, and discussed the proposed salt and snow policy amendments on November 8, 2023. At the November meeting, the IWG did not express concerns to changing the policy to prohibit storage of salt that is exposed to precipitation and for potential exposure to instead be regulated by a Risk Management Plan (RMP). It was also noted that although potentially exposed is not well defined, it would give the Risk Management Officials (RMOs) some discretion on site on how to handle salt storage. The CTC Implementation Working Group was further consulted on February 6, 2024, and potential challenges regarding changes to circumstances for handling and storage of snow were discussed. The change in area threshold was highlighted by RMOs as making a prohibition policy impractical. Inclusion of multi-residential land use in the policy was also recommended.

The draft salt and snow policies were presented to the Source Protection Committee for information on March 20, 2024. The Committee did not express any concerns about the proposed policies; however, it was noted that it would be difficult to monitor and enforce the prohibition of snow storage in WHPA-A (SNO-1 policy).

Municipalities provided comments on the policies in the [comment matrix](#). The policy text was modified based on these comments.

Application of road salt (Threat #12)

SPA staff reviewed the current grid systems and the new area-based method included in the 2021 Technical Rules. It is recommended that CTC SPR use the area-based method for all new amendments going forward. Municipalities will have the option to retain use of an existing 1 km x 1 km grid where that existing grid is sufficient to identify road salt threats, or the threat activity is already identified through other approaches (e.g., Issue Contributing Areas). Regardless, through the amendment process, the Assessment Report should be updated to include a description and rationale of the approach chosen.

Although MECP lowered the impervious area thresholds for where road salt application can be drinking water threats, and methodologies were modified in the 2021 Technical Rules, no changes to the areas of significant drinking water threats (SDWT), low or moderate threats were made. Therefore, no road salt application policy changes are required to address the 2021 Technical Rules.

Handling and Storage of Road Salt (Threat #13)

Although the thresholds for SDWT were revised, the areas of SDWT as well as low and moderate threats for the handling and storage of road salt remain unchanged. However, the Table of Circumstances have been updated to include a new circumstance where the handling

and storage is potentially exposed to precipitation and runoff. Below is a summary of proposed changes for this policy:

- Apply prohibition to circumstances where handling and storage is exposed to precipitation, runoff, or snow melt; and apply RMPs for circumstances where there is a potential for exposure.
- Remove the text “excluding incidental quantities for personal use” from the prohibition policy. This was recommended by municipal staff as the new 20 kg threshold in the Tables of Drinking Water Threats should be sufficient for personal use. Any quantities stored that are less than 20 kg would not be a significant drinking water threat in the CTC SPR.
- Remove specified vulnerable areas from SAL-7 policy to facilitate conformity with possible future changes to the Technical Rules and Tables of Drinking Water Threats.

Storage of Snow (Threat #14)

No change to SNO-1 is required for compliance with the 2021 Technical Rules. However, based on feedback from the Implementation Working Group, particularly RMOs in municipalities with extensive Issue Contributing Areas (ICAs), the draft policies now include an area threshold.

Next Steps

Pending endorsement of the policy amendments by the SPC, source protection authority staff will prepare edits to the CTC Source Protection Plan and Explanatory Document. This amendment is expected to be made at the time of the next amendment to the SPP under section 36 of the *Clean Water Act*.

Report prepared by:

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Attachments (2)

Attachment 1: 2021 Technical Rule Changes

Attachment 2: Proposed Policy Comparison

Attachment 1: 2021 Technical Rule Changes

Application of road salt (Threat #12)

Previous methods in the Technical Rules did not adequately capture areas where application of road salt could pose significant risks. To address this, the Ministry of Environment Conservation and Parks (MECP) made the following changes to Threat #12 in the 2021 Technical Rules:

- Lowered the impervious area thresholds for low, moderate, and significant risks. Previously, application of road salt could lead to a significant drinking water threat (SDWT), where the percentage of impervious surface area, as set out on a total impervious surface area map, was 80 percent or more in WHPA (10), or in IPZ and WHPA-E (9). In the 2021 Technical Rules, application of road salt can now be a significant drinking water threat, where the default percentage of impervious surface area, as set out on a total impervious surface area map, is 30 percent or more in WHPA (10); or is 8 percent or more in IPZ and WHPA-E (9).
- Removed the requirement for SPRs to use 1 km x 1 km grid to calculate percentages of impervious surfaces. Added flexibility for the local Source Protection Authority (SPA) to determine the grid or area size based on local characteristics of the vulnerable areas.

Handling and Storage of Road Salt (Threat #13)

The quantity of road salt and how it is stored are circumstances that determine if it is a low, moderate or significant drinking water threat. In the previous (2017) Technical Rules, the threshold for the quantity of stored salt that would be a significant threat was 500 tonnes and greater in IPZ scored 10, and greater than 5,000 tonnes in WHPA (10) and WHPA-E (9). In addition, threats were only identified for circumstances where stored salt is exposed to or covered from precipitation.

MECP has made the following changes to Threat #13 in the updated 2021 Technical Rules:

- Lowered the SDWT thresholds:
 - >20 kg for *uncovered* salt storage in WHPA (10) and IPZ/WHPA-E (9-10).
 - >100 kg for *partially covered* salt storage in WHPA (10) and IPZ/WHPA-E (10).
- Added a third circumstance of *potential exposure* of salt storage to precipitation, runoff, and snow melt.
- Removed fully protected salt storages as a significant drinking water threat in any quantity, except in issue contributing areas for sodium or chloride.

Storage of Snow (Threat #14)

The previous Technical Rules included circumstances only based on above/below ground storage and size of the storage area. The new circumstances specifically reference “infiltration or discharge of snowmelt”, land use, storm drainage from a facility, and size of the facility. The areas of SDWT have been revised in the 2021 Technical Rules to adapt to the new circumstances, as follows:

- The infiltration or discharge of snowmelt from the storage of snow on a site where the predominant land use is commercial or industrial by any means other than a storm water drainage system outfall.
 - Area upon which snow is stored $\leq 200 \text{ m}^2$, WHPA (10) and IPZ/WHPA-E (10)
 - $200 \text{ m}^2 < \text{Area upon which snow is stored} \leq 2000 \text{ m}^2$, WHPA (10) and IPZ/WHPA-E (9-10)
 - $2000 \text{ m}^2 < \text{Area upon which snow is stored}$, WHPA (10) and IPZ/WHPA-E (8-10)
- A storm water drainage system outfall that serves a Snow Disposal Facility
 - Area upon which snow is stored $\leq 200 \text{ m}^2$, IPZ/WHPA-E (10)
 - $200 \text{ m}^2 < \text{Area upon which snow is stored} \leq 2000 \text{ m}^2$, WHPA (10) and IPZ/WHPA-E (9-10)
 - $2000 \text{ m}^2 < \text{Area upon which snow is stored}$, WHPA (10) and IPZ/WHPA-E (8-10)

Attachment 2: Proposed Policy Comparison

ID	Tool	Current Policy	Proposed Policy
SAL-7	Prohibition (s.57)	<p>Where the handling and storage of road salt is, or would be, a significant drinking water threat (excluding incidental quantities for personal use), the following actions shall be taken:</p> <ol style="list-style-type: none"> 1) The handling and storage of road salt is designated for the purpose of s.57 under the <i>Clean Water Act</i>, and is therefore prohibited where the threat would be significant in any of the following areas: <ul style="list-style-type: none"> • WHPA-A (future); or • WHPA-B (VS=10) (future); or • WHPA-E (VS>=9) (future); or • The remainder of an Issue Contributing Area for Sodium or Chloride (future). 	<p>Where the existing or future handling and storage of road salt is or would be a significant drinking water threat and the storage is exposed to precipitation or runoff from precipitation or snow melt, this activity shall be designated for the purpose of Section 57 of the <i>Clean Water Act</i> and shall be prohibited.</p>
	Risk Management Plan (s.58)	<ol style="list-style-type: none"> 2) The handling and storage of road salt is designated for the purpose of s.58 under the <i>Clean Water Act</i>, requiring risk management plans, where the threat is significant in any of the following areas: <ul style="list-style-type: none"> • WHPA-A (existing); or • WHPA-B (VS=10) (existing); or • WHPA-E (VS>=9) (existing); or • The remainder of an Issue Contributing Area for Sodium or Chloride (existing). 	<p>Where the existing or future handling and storage of road salt is or would be a significant drinking water threat and the storage has the potential to be exposed to precipitation or runoff from precipitation or snow melt, this activity shall require risk management plans for the purpose of Section 58 of the <i>Clean Water Act</i>.</p>

ID	Tool	Current Policy	Proposed Policy
SNO-1	Prohibition (s.57)	<p>Where the storage of snow is, or would be, a significant drinking water threat, the following actions shall be taken:</p> <ol style="list-style-type: none"> 1) The storage of snow is designated for the purpose of s.57 under the <i>Clean Water Act</i>, and is therefore prohibited where the threat is, or would be significant, in any of the following areas: <ul style="list-style-type: none"> • WHPA-A (existing, future) 	<p>Where the existing and future storage of snow is, or would be, a significant drinking water threat, and the predominant land use is commercial or industrial or multi-residential, and the area upon which snow is stored is more than 100 m², the following actions shall be taken:</p> <ol style="list-style-type: none"> 1) The storage of snow is designated for the

ID	Tool	Current Policy	Proposed Policy
			purpose of s.57 under the Clean Water Act and is therefore prohibited in WHPA (10).
	Risk Management Plan (s.58)	<p>2) The storage of snow is designated for the purpose of s.58 under the Clean Water Act, requiring risk management plans, where the threat is significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-B (VS = 10) (existing, future); or • WHPA-E (VS ≥ 9) (existing, future); or • The remainder of an Issue Contributing Area for Sodium or Chloride (existing, future). <p>Without limiting other requirements, risk management plans shall include appropriate terms and conditions to ensure the storage of snow, and associated runoff, ceases to be a significant drinking water threat. Notwithstanding the above, emergency snow storage may be permitted outside of WHPAA as determined by the risk management official and the municipality responsible for snow storage in the absence of a Risk Management Plan.</p>	<p>2) The storage of snow, not subject to section 1 above, is designated for the purpose of s.58 under the <i>Clean Water Act</i>, requiring RMP.</p> <p>Without limiting other requirements, RMP shall include appropriate terms and conditions to ensure the storage of snow, and associated runoff, ceases to be a significant drinking water threat.</p> <p>Notwithstanding the above, emergency snow storage may be permitted outside of WHPA-A as determined by the risk management official and the municipality responsible for snow storage in the absence of an RMP.</p>