

**TO: Chair and Members of the Source Protection Committee Meeting  
#2/24, March 20, 2024**

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

**RE: Review of the CTC Source Protection Plan Salt and Snow Policies**

## **RECOMMENDATION**

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

## **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. Further discussion with implementing municipalities is required before finalizing the SNO-1 policy.

## **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 are discussed in Agenda item 7.1 c.

## **Policy Development**

### **Municipal feedback**

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.

Municipalities provided comments on the policies in the comment matrix (**Attachment 2**). 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**

Task 9 of the CTC Section 36 workplan, requires consideration of additional policies to address drinking water issues that were identified in the 2015 Source Protection Plan. However, this task is not part of the mandatory portion of the workplan, as defined by the Minister's order dated July 22, 2019. As stated in the program update report (Agenda Item 7.1 a), the scope of this report was limited to compliance with the 2021 Technical Rules, while discussion on Issue Contributing Areas (ICAs) continue.

Further engagement with the CTC Implementation Working Group is planned in the spring before the final policy text of the policies are brought to the committee for endorsement.

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### **Attachments (3)**

**Attachment 1:** 2021 Technical Rule Changes

**Attachment 2:** Comment Matrices

**Attachment 3:** 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: Comment Matrix

Municipality	Comments	Date	CTC Staff Response	Date
Wellington	We should consider prohibition of salt application (even through a surrogate of parking lots) very carefully. Has CTC considered a legal opinion on the prohibitions proposed? Or is it too early. We will need to review these policies more thoroughly and provide comment	8-Nov-23	Thank you for your comments. We have not considered legal opinion at this time. The policies will be brought back for further discussions.	11-Nov-23
Wellington	Salt application policies - no concerns from a 2021 Technical Rules perspective with proposed policy changes. We do have suggestions on policy language for later when we are reviewing the policy wording in detail.	14-Nov-23	Ok. Thank you for your comments.	2-Jan-24
Wellington	Impervious surface assessment - we understand that the SPA is recommending area based methodology going forward, however, is not making changes in the S36. Given the S36 workload, we concur with updating impervious surface assessments in the future during S34.	14-Nov-23	Ok. Thank you for your comments.	2-Jan-24
Wellington	SAL-7 - we concur that splitting this policy into two parts addresses the 2021 Technical Rules change for storage and handling (ie fully and partially exposed to precipitation). We have further comments for later.	14-Nov-23	Ok. Thank you for your comments.	2-Jan-24
Wellington	SAL-7 - we suggest removal of the incidental quantities for personal use from the first part of the policy as it opens the door to a resident claiming a personal use exemption for greater than 20 kg of salt. The 20 kg threshold for SDWT should be sufficient for personal use (ie anyone is allowed < 20 kg).	14-Nov-23	Thank you for your comments. We agree. "Excluding incidental quantities for personal use" to be removed from SAL-7 prohibition policy.	2-Jan-24
Wellington	SAL- 7 - second part appears to contain a cut and paste error as it references S57 prohibition in and RMP policy.	14-Nov-23	Thank you for noticing this error. RMP policy to be corrected to "...this activity shall require risk management plans for the purpose of Section 58..."	2-Jan-24
Wellington	Sno-1 - Part 1 policy wording is missing that prohibition is only in WHPA-A	14-Nov-23	Add WHPA-A back to SNO-1 Part 1 as Part 2 only requires RMP for significant threats <i>outside</i> of WHPA-A. Storage of snow is prohibited in WHPA-A.	2-Jan-24

Municipality	Comments	Date	CTC Staff Response	Date
Wellington	The above Nov 8 and 14 / 23 comments are focused only on immediate and obvious concerns with the policies related to application of the 2021 Technical Rules . We understand that we will have additional time to review the policy wording in the future and therefore we did not answer all of the discussion questions as per the IWG meeting.	14-Nov-23	Ok. Thank you for your comments.	2-Jan-24
Orangeville	<p><b>SAL -7</b> : Suggest removing reference to "incidental quantities for personal use" , since the circumstances now better define when a threat is significant.</p> <p>Concur with splitting the policy into two parts to address exposed vs. potentially exposed situations</p> <p>Think there is a typo under the potentially exposed policy ( says potentially exposed storage is to be prohibited ;assume the intent is to require RMPs for potentially exposed storage?</p> <p>Prohibiting potentially exposed storage would significantly impact the workload in Orangeville as we would have to enforce the prohibition of salt bins across entire ICAs - this is not implementable or practical</p>	6-Dec-23	<p>Thank you for your comments. We agree, as mentioned above. "Excluding incidental quantities for personal use" to be removed from SAL-7 prohibition policy.</p> <p>Change RMP policy to "...this activity shall require risk management plans for the purpose of Section 58..."</p>	2-Jan-24

Municipality	Comments	Date	CTC Staff Response	Date
Orangeville	<p><b>SNO-1 (Prohibition):</b> This prohibition would be impractical to implement or enforce, now that the circumstances define a significant threat as " a snow storage area of &lt;200 m2", and "Infiltration or discharge of snowmelt from the storage of snow on commercial or industrial sites" . In Orangeville this would translate to every commercial and industrial property in the ICA being subject to a prohibition of snow storage.</p> <p>Even if the prohibition was limited to just the WHPA-A , with the new circumstances defining a threat as anything less than 200m2, this means we would have to prohibit all snow storage in several of our WHPA-As. Would we have to require these properties to remove all of their snow from site every time there was a snowfall? Can't see practical way of how this can be implemented.</p> <p>Before the circumstances defined a threat storage area of greater than 100m 2 (0.01 hectare), and limited the prohibition to WHPA-A, now that the size limit is removed (i.e. less than 200m2), any and all storage, including the smallest pile on a commercial or industrial site would be prohibited. Can't see how we can practically enforce this?</p> <p>Please correct me if my interpretation of the circumstances is wrong, I am using the source water protection threats tool to reference the updated circumstances (<a href="https://threats.swpip.ca/Threats/TSCs">https://threats.swpip.ca/Threats/TSCs</a>)</p> <p>In general, prohibiting existing snow storage areas in the WHPA-A is an extremely impractical and difficult policy to implement, particularly when the surface area limits are small, our preference would be to require a RMP to address existing snow storage in the WHPA -A - you are requiring an RMP to address road salt application, the same should be applied to snow storage. Again, a prohibition on snow storage would mean that on our well sites, municipal staff would not be able clear the snow from the well access roads and parking spots? I don't think this is the intent of the policy</p>	6-Dec-23	Thank you for this feedback. SNO-1 has been updated to address this.	12-Mar-24



Municipality	Comments	Date	CTC Staff Response	Date
Orangeville	<p><b>SNO-1 (Risk Management Plans)</b> : Is it possible to define a limit or size for when an RMP would be required? Similar to SNO-2, where the policy applies to snow that would be stored in areas of 200m2 or above; without defining this limit we will have to require RMPs for any quantity of snow on a commercial or industrial site, even the smallest piles. Don't see how this is implementable, or even how we would go about defining what is and isn't a snow storage pile, since there is no defined surface area limit. Is the snow that is pushed to the side of road considered a snow pile, there's no defining qualifier, so difficult to determine what is and isn't a snow pile.</p>	6-Dec-23	Thank you for this feedback. SNO-1 has been updated to address this.	12-Mar-24

### Attachment 3: Proposed Policy Comparison

ID	Tool	Current Policy	Proposed Policy
SAL-7	Prohibition	<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"> <li>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"> <li>WHPA-A (future); or</li> <li>WHPA-B (VS=10) (future); or</li> <li>WHPA-E (VS&gt;=9) (future); or</li> <li>The remainder of an Issue Contributing Area for Sodium or Chloride (future).</li> </ul> </li> </ol>	<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	<ol style="list-style-type: none"> <li>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"> <li>WHPA-A (existing); or</li> <li>WHPA-B (VS=10) (existing); or</li> <li>WHPA-E (VS&gt;=9) (existing); or</li> <li>The remainder of an Issue Contributing Area for Sodium or Chloride (existing).</li> </ul> </li> </ol>	<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"> <li>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"> <li>WHPA-A (existing, future)</li> </ul> </li> </ol>	<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"> <li>The storage of snow is designated for the</li> </ol>

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"> <li>• WHPA-B (VS = 10) (existing, future); or</li> <li>• WHPA-E (VS ≥ 9) (existing, future); or</li> <li>• The remainder of an Issue Contributing Area for Sodium or Chloride (existing, future).</li> </ul> <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>