Report To:	**Halton-Hamilton Source Protection Committee**
Report No.:	**SPC-23-06-02**
From:	Martin Keller, Senior Manager, Watershed Planning and Source Protection, mkeller@hrca.on.ca
Date:	June 13, 2023
Subject:	**Update – 2021 Technical Rules Implications**

Recommendation

THAT the Halton-Hamilton Source Protection Committee receives for information the staff report SPC-23-06-02 Update – 2021 Technical Rules Implications.

Executive Summary

Staff are continuing to analyze the implications of the updated technical framework and revised 2021 Technical Rules under the *Clean Water Act, 2006,* including revised circumstances for identifying significant drinking water threats in the Halton-Hamilton Source Protection Region (HHSPR). On April 5 and June 2, 2023, a Municipal Working Group meeting was held with representatives from municipalities in the Halton-Hamilton Source Protection Region. Work carried out thus far, including implications because of the changes in the 2021 Technical Rules, management intent and policy tools available for the application, handling and storage of road salt, and storage of snow are provided in this report.

Report

Background

In December 2021, the Ministry of the Environment, Conservation and Parks (MECP) revised the Technical Rules under the *Clean Water Act, 2006*. The rules are available at: https://www.ontario.ca/page/2021-technical-rules-under-clean-water-act

The recently submitted and approved comprehensive HHSPR updates under Section 36 of the *Clean Water Act, 2006* were undertaken following the 2017/2018 Technical Rules. The 2021 Technical Rules will apply to subsequent Assessment Report and Source Protection Plan updates at HHSPR.

For each of the threat activities discussed below, staff reviewed the 2021 Technical Rule changes, and presented and discussed proposed options with municipal staff and Risk Management Officials (RMO) at the April 5 and June 2, 2023 Municipal Working Group meetings. Discussions on these options are ongoing and the following outline the current direction of policy development and/or revisions, as noted. Changes may be made based on feedback from municipal staff.

Application of Road Salt

Using the new and updated impervious surface mapping, areas where the application of road salt is or would be a potential significant drinking water threat were identified. These areas in many cases only cover a portion of the entire vulnerable area, or none at all, meaning policies addressing application of road salt may not be applicable in all of the vulnerable areas. Maps of all vulnerable areas in the Halton Hamilton Source Protection Region showing the percent impervious surface area using the new method can be found in Appendix A of the March 9, 2023 Program Update Report (SPC-23-03-01). More detailed maps of those areas where application of road salt is or would be a significant drinking water threat are attached as **Appendix A** to this report.

The intent of policy development to address the application of road salt is to limit or reduce the amount of salt applied to impervious surfaces including but not limited to, roads, sidewalks, and parking lots, where that activity would be a significant risk to drinking water sources.

Following discussions with municipal partners and RMOs, Risk Management Plans (RMP) have been identified as an ideal policy tool for mitigating the threat of application of road salt in most cases. Staff propose that low density residential properties would be excluded from the Risk Management Plan while high density residential properties with 8+ parking spaces or a parking area over 200mSq would be subject to the development of an RMP. This threshold is in line with other source protection plans, including the CTC. Risk Management plans offer RMOs liability protection and provide opportunities for education and outreach during inspections and site visits. Activities on low density residential properties exempt from RMPs would be addressed through education and outreach initiatives alone. To address application of road salt on provincially managed roads, non-legally binding policies are proposed to encourage implementers such as the MTO and MECP to continue improving their salt management programs and practices.

Storage and Handling of Salt

The 2021 Technical Rules separate the storage and handling of salt into three separate categories; 1) exposed, 2) potentially exposed and 3) not exposed to precipitation or run off.

Handling and storage of road salt in the category not exposed to precipitation (e.g., in a salt dome) does not result in the activity being identified as a significant drinking water threat and will not be addressed through policy development.

The intent of policy development to address the category where road salt handling and storage is exposed to precipitation or runoff, e.g., an unprotected pile of salt, is proposed to be prohibited, to eliminate the threat altogether. The category of handling and storage

of road salt that is potentially exposed to precipitation, e.g., a pile of salt covered by a tarp, or in an outdoor bin or salt box is proposed to be managed.

Prohibition of existing handling and storage of road salt exposed to precipitation and/or run off is feasible; e.g., an existing uncovered pile of salt could simply be covered by a tarp, as a minimum, to now be categorized as potentially exposed. Similarly, the prohibition of any new/future occurrence of handling and storage of road salt exposed to precipitation and/or runoff is practical and feasible as storage and handling is easily undertaken in a manner that would be categorized as potentially exposed, such as containing and storing the salt in a salt box or outside bin.

With respect to the handling and storage of road salt where this activity would be potentially exposed to precipitation and/or runoff, a review of the CTC source protection plan policies helped staff determine that Risk Management plans are being used to manage the storage and handling of salt. Initial review of ortho photos shows few areas were 100kg or more of salt is likely stored in vulnerable areas where this activity would be a significant drinking water threat. This would indicate the number of additional RMPs that may need to be negotiated with property owners would likely be small and manageable for RMO and municipal staff and would suggest that adopting RMP policies to manage the existing and future handling and storage of road salt for this category is feasible.

Municipal representatives from Halton Region and Wellington informed staff that they currently enforce RMPs for handling and storage of road salt in vulnerable areas within their municipal jurisdiction outside the Halton Hamilton Source Protection Region and prefer the potential for consistency across their Source Protection Plan policies. Discussions are ongoing with all municipalities including the City of Hamilton to ensure proposed policies will be able to be supported by all.

Exclusions from requirements to negotiate a RMP are proposed to apply to incidental quantities for personal use and residential properties. An education and outreach policy is proposed in those cases where the activity is exempt from requiring an RMP.

Storage of Snow

The 2021 Technical Rules reflect changes to the circumstances surrounding the storage of snow. The area threshold on which snow is stored, categorized by less than 200mSq, between 200mSq and 2000mSq, and great than 2000mSq, has been significantly lowered and the circumstances now specify the type of drainage from the snow storage site. The circumstance where this activity can be a significant drinking water threat include snowmelt from predominantly commercial or industrial sites without a stormwater drainage system outfall, or where a snow disposal facility is served by a storm water drainage system outfall.

Initial findings by staff reviewing ortho photos found no areas where snow storage of 2000mSq or more would occur. Therefore, staff propose that existing and future snow storage above the 2000mSq threshold would be prohibited. Snow storage below the 2000mSq threshold is proposed to be managed through RMPs to ensure snowmelt from snow storage does not become a significant threat to drinking water, either via storm water drainage system outfalls from a snow disposal facility, or from industrial or commercial sites with no stormwater outfall.

Municipal Feedback

The proposed policy approaches are based on an initial review of ortho imagery looking for areas where significant threats may occur or where they may be possible in the future. These areas were presented to municipal staff during our Municipal Working Group meeting. Staff have requested feedback from the municipalities to confirm the findings, with proposed policy approaches subject to change based on feedback received.

Appendix B provides more detail and summarizes the 2021 Technical rules for application of road salt, handling and storage of salt and storage of snow, the circumstances that apply to the Halton-Hamilton Source Protection Region, policy intent, favourable policy tools and potential vulnerable areas found during ortho photo analysis where the activity could occur.

Next Steps

Discussions with municipal staff are ongoing and staff will bring further updates to future SPC meetings, as applicable. Source Protection Plan updates that are made under S.34 of the *Clean Water Act, 2006* will need to follow the 2021 Technical Rules as required by the legislation.

Signed & respectfully submitted:

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Appendix A

Figure 1: Carlisle WHPA E

WH PA E Vulnerability 9-10
< 1%
>= 1% - < 6%
>= 6% - < 8%
> 8%

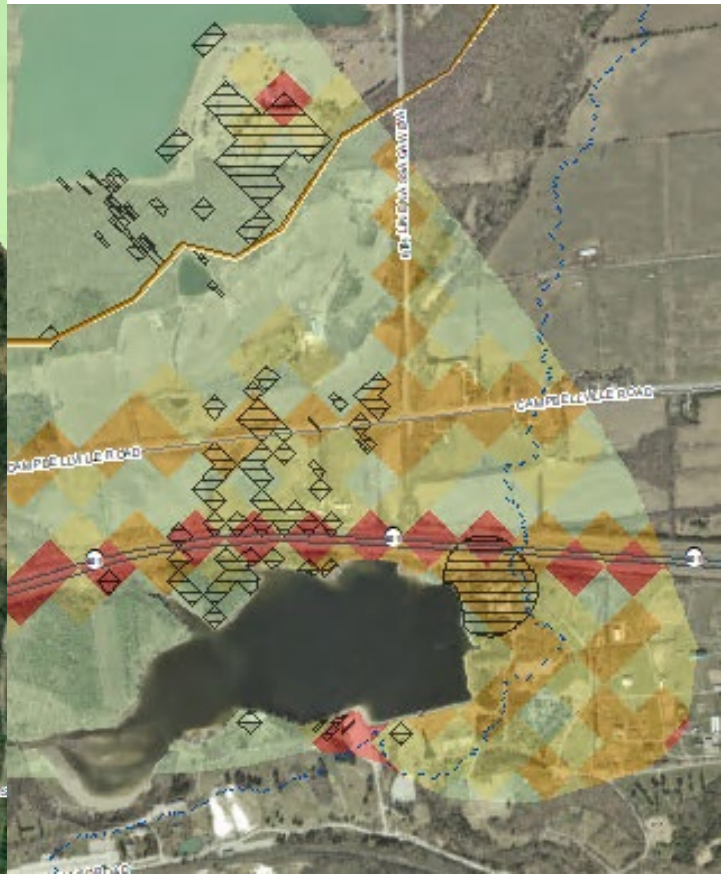

Figure 2: Kelso WHPA

WHPA Vulnerability 10
Impervious Surfaces
% of imperviousness in 100m² grid
>= 30%
>= 8% - < 30%
>=1% - < 8%
< 1%

Figure 3: Freelton WHPA (a)

Figure 4: Freelton WHPA (b)

Figure 5: Campbellville WHPA

Appendix B

Threat: Application, Storage and Handling of Road Salt

Activity	Existing / Future	Vulnerable Area	Significant Threat VSA	Threshold	Intent	Tool Options	Applicable to HHSPR	Notes
Application of Road Salt	Existing / Future	WHPA-E	VSA 9-10	8%+	Limit the amount of salt used	RMP LUP E&O	Carlisle WHPA-E	E&O proposed for residential WHPA-E covers a residential subdivision
Application of Road Salt	Existing / Future	WHPA-A WHPA-B	VSA 10	30%+	Limit the amount of salt used Road design (Future)	RMP LUP E&O	Kelso Freelton Campbellville	Kelso, Freelton: mostly MTO Highways. Campbellville mostly v10 /with limited area of impervious area >30%; potential ICA
Storage and Handling	Existing / Future - Exposed	WHPA-E WHPA-A WHPA-B	VSA 9-10 VSA 10	20+ kg	Eliminate exposed salt storage	Prohibition	All WHPAs/WHPA-E	Easy to move into potentially exposed category by storing salt in a bin or bag.
Storage and Handling	Existing Potentially Exposed	WHPA-A WHPA-B	VSA 10	100+ kg	Manage salt storage Establish standards for road salt storage	RMP Specify Action E&O	Kelso Carlisle Freelton Greensville Walkers Line Campbellville	Initial review of ortho photo shows few areas were 100kg+ of salt is likely stored. MUNICIPALITY TO CONFIRM
Storage and Handling	Future - Potentially Exposed	WHPA-A WHPA-B	VSA 10	100+ kg	Manage salt storage Establish standards for road salt storage	RMP Specify Action E&O	Kelso Carlisle Freelton Greensville Walkers Line Campbellville Walkers Line	Initial review of ortho photo shows few areas were 100kg+ of salt is likely stored. MUNICIPALITY TO CONFIRM

Threat: Storage of Snow

Activity	Circumstance	Vulnerable Area	Significant Threat VSA	Threshold	Intent	Tool Options	Applicable to HHSPR	Notes
On Site – Storage of Snow	Commercial / Industrial (no storm water outfall)	WHPA-A WHPA-B	10	<200mSq/ 200mSq - <2000mSq	RMP (Existing) Prohibition (Future)	Land Use Planning	All WHPAs	Potential Locations: Freelton commercial properties. MUNICIPALITIES TO CONFIRM.
On Site – Storage of Snow	Commercial / Industrial (no storm water outfall) / Storm water Drainage	IPZ/WHPA-E	8-10	>2000mSq	Prohibition (Future)	Land Use Planning	Carlisle	Initial review of ortho photo does not show any areas where snow storage of this size would occur. MUNICIPALITIES TO CONFIRM.
On Site – Storage of Snow	Commercial / Industrial (no storm water outfall) / Storm water Drainage	WHPA-A WHPA-B	10	>2000mSq	Prohibition (Future)	Land Use Planning	All WHPAs	Initial review of ortho photo does not show any areas where snow storage of this size would occur. MUNICIPALITIES TO CONFIRM.
On Site – Storage of Snow	Storm water drainage	IPZ/WHPA-E	9-10	200mSq - <2000mSq	Prohibition (Future)	Land Use Planning	Carlisle	Initial review of ortho photo does not show any areas where snow storage of this size would occur. MUNICIPALITIES TO CONFIRM.
On Site – Storage of Snow	Storm water drainage	WHPA-A WHPA-B	10	200mSq - <2000mSq	Prohibition (Future)	Land Use Planning	All WHPAs	Potential Locations: Greensville Elementary Parking Lot Kelso Well House Parking Lot Campbelleville Parking lots and cul de sacs