



Essex Region Conservation Authority

Essex Region Source Protection Committee Meeting Agenda

Meeting Date: Wednesday, February 14, 2024

Time: 4:00 pm

Location and Details: Essex Civic Centre, Room D

List of Business	Page Number
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1. Land Acknowledgement	
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2. Call to Order	
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3. Chair's Welcome	
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4. Declarations of Conflict of Interest	
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5. Approval of Agenda	1-2
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THAT the agenda for the Wednesday, February 14, 2024 meeting of the Essex Region Source Protection Committee (SPC) be approved.

6. Adoption of Minutes	
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A. Essex Region Source Protection Committee (SPC)	3-8
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2023-12-13 Meeting Minutes

THAT the minutes of the Source Protection Committee meeting held on Wednesday, December 13, 2023 be approved as presented.

7. Correspondence

None.

X-X

8. MECP Liaison's Update

9. Presentations

None.

10. Reports

A. SPC 01/24

9-18

S.36 Update – Draft Road Salt Policies

THAT the SPC approve the attached amended policies to be submitted to the MECP for early engagement

B. SPC 02/24

19-27

S.36 Update – Draft Snow Storage Policies

THAT the SPC approve the attached amended policies to be submitted to the MECP for early engagement

11. New Business

None.

12. Other Business

None.

13. Adjournment

THAT the February 14, 2024 meeting of the Essex Region Source Protection Committee be adjourned.

Next Meeting

The next meeting of the Essex Region Source Protection Committee is to be held on March 13, 2024.



Essex Region Source Protection Committee

Meeting Minutes

Meeting Date: Wednesday, December 13, 2023

Time: 4:00 pm

Location and Details: Essex Civic Centre, Room C

Attendance

Members Present:

Tom Fuerth (Chair)	Matthew Merrett
John Barnett	Tim Mousseau
Ron Barrette	Cynthia Ouellet (via Zoom)
Jim Drummond	Chris Snip
Bill Dukes	Kevin Webb
Antonieta Giofu	

Victoria Peczulis (WECHU – via Zoom)
Larry Verbeke (SPA – via Zoom)

Regrets: Dennis Rogers, Frank Garardo, Chad Quinlan, Aaron Coristine

Absent:

Staff Present: Katie Stammler, Water Quality Scientist/Project Manager Source Water Protection
Amy Weinz, Water Quality Technician
Lisa Limarzi, Administrative Associate, Corporate Services

Others: Warren Higgins

1. Call to Order

Good evening and welcome to the December 13th, 2023 meeting of the Essex Region Source Protection Committee.

We have quorum with 9 members present, and 1 member present by Zoom. I will call the meeting to order at this time, 4:05 pm.

2. **Land Acknowledgement**

We would like to begin by acknowledging that this land is the traditional territory of the Three Fires Confederacy of First Nations, comprised of the Ojibway, the Odawa, and the Potawatomi Peoples. We recognize the people's long-standing relationship with the land in this area.

As always, we like to start with a statement of gratitude and hope so today I'm very grateful to Jackie and DRCC for this new owl camera system. I'm happy that you're all here and hope that we can figure out how to write policies for salt and snow storage.

3. **Chair's Welcome**

At a meeting of the program managers, the province advised that instead of us having to apply annually for funding, we will now have a 3-year funding window. That is good news. The province has also amended our agreement for this fiscal year and given us more money to study blue/green algae.

The other good news in terms of funding is that Source Water is one of the 4 core mandate programs left after Bill 23 created changes in the Conservation Authorities Act. The Conservation Authority is now able to levy its members for our program.

Katie attended a program managers' meeting virtually in Peterborough. One of the original chairs (Max Christie of the Quinte Region) retired. The issue that he very actively promoted was protection for source water systems that weren't in source water areas, but which did serve a community. Most of northern Ontario isn't covered by source water protection plans. He was able to get the province to develop a best practices document. We wish him well.

There is an SPA meeting tomorrow night. They are going to review about half of our update package as we have it at this point.

We have 1 ½ vacancies on our committee. 1 from Lakeshore. Albert Dionne retired. And there is one member who has not participated so he may need to be replaced.

We welcome Tom Dufour, Amy Weinz and Warren Higgins.

4. **Declarations of Conflict of Interest**

There were no declarations of conflict of interest.

5. Approval of Agenda

Resolution SPC 20/23 Moved by John Barnett
Seconded by Bill Dukes

That the agenda for the December 13, 2023 meeting of the Essex Region Source Protection Committee be approved.

Carried

6. Adoption of Minutes

A. Essex Region Source Protection Committee

Resolution SPC 21/23 Moved by Tim Mousseau
Seconded by Matthew Merrett

That the minutes for the September 13, 2023 meeting of the Essex Region Source Protection Committee (ERSPC) be approved and the recommendations therein be adopted as distributed.

Carried

B. Essex Region Source Protection Authority

None.

7. Correspondence

None.

8. MECP Liaison's Update

None.

9. Presentations

None.

10. Reports for Approval

A. Report SPC 09/23 – S.36 Update – Re-delineation of Event Based Area

THAT the SPC approve the amended Event Based Area as described in Report 09/23 to be submitted to the MECP for early engagement

Resolution SPC 22/23 Moved by Jim Drummond
Seconded by Ron Barrette

Carried

B. Report SPC 10/23 – S.36 Update – Road Salt Policies

THAT Report 10/23 be received and further;

THAT ERSPA prepare draft policies at the SPC’s direction

Resolution SPC 23/23 Moved by Bill Dukes
Seconded by Antonietta Giofu

Carried

C. Report SPC 11/23 – S.36 Update – Snow Storage Policies

THAT Report 11/23 be received and further;

THAT ERSPA prepare draft policies at the SPC’s direction

Resolution SPC 24/23 Moved by Chris Snip
Seconded by Bill Dukes

Carried

11. New Business

None.

12. Other Business

In regard to the changes to the Conservation Authorities Act, Conservation Authorities can now only levy for four things. Authorities can implement Source Water Protection, we can manage the lands that we own, we can administer regulations under Section 28 and we can do very specific water quality monitoring through the provincial water quality monitoring network and the provincial ground water monitoring network. Those are things that we can charge levy for starting on January 1, 2024, and those are the only things that we can use levy for. We have never used levy for Source Water Protection. The province has been very clear, especially since they have advised that they are giving us this 3-year agreement, that it is not a download to the municipalities.

What is in the new legislation is that the implementation of Source Protection Policies can be levied by the Conservation Authority. Those policies would be the policies that name the Conservation Authority as the implementing body. Those could be our education and outreach policies. We didn't go that way this year with our budget, but it's something that we might need to explore. Our education and outreach policies are written in a way that say they are dependent on having the funding to do them. We've been fortunate in the past to have had grant funds that have supported this.

What the Conservation Authority had to do was to catalogue all of the activities that we do and put them into categories. So we have Category 1, which are those mandatory, leviable, services. Category 2 is anything we do on behalf of a municipality at their request by an MOU (Memorandum of Understanding), that includes risk management. Category 2 activities are the municipality's responsibility, but they pay us to do them. Category 3 is everything else that we do; our education programs, the events that we hold, tree planting, restoration, agricultural stewardship, any of the additional water quality research type projects that we do, all fall under Category 3. We have to obtain external funding to undertake Category 3 items or we have to get the municipalities to sign an additional MOU saying that they will support those activities.

One thing I want to address is agricultural stewardship, which is one way that we implement our education and outreach policy for reducing nutrients that have an impact on harmful algal blooms. In the past, we've been able to implement that education and outreach policy through external grants. We don't currently have those external grants. The budget for Category 3 activities, including agricultural stewardship, went to all regional municipalities, and the rural, lower tier municipalities all approved it as is, but the City of Windsor picked two things out of the budget, one of which was agricultural stewardship. And the reason was that we hold to the proportional system, so the City was being asked to support agricultural stewardship at 48 percent, and the City maintains that they don't have 48 percent of the agricultural lands in the County and they were only willing to support agricultural stewardship at 5 percent. The result of that vote was the immediate cessation of our agricultural stewardship program and the immediate layoff of our agricultural technician. I think that agricultural stewardship is extremely important, and we are committed to continuing to work with the agricultural community in some way. I wanted to make this committee aware of this situation and of the fact that, through the perfectly imperfect storm where we lost our grant funding, the changes to the Conservation Authorities Act and the decision by the City, all resulted in the loss of this important work that we do, which does have an impact on our ability to deliver that particular policy in the Source Protection Plan. Tomorrow night, the Source Protection Authority will be receiving about half of our package of updated policies, including the microcystin policy and a reminder that they are the implementers of that policy.

13. Adjournment

Resolution SPC 25/23 Moved by Tim Mousseau
Seconded by Matthew Merrett

That the December 13, 2023 meeting of the Essex Region Source Protection Committee
be adjourned at 6:05 pm. **Carried**

Next Meeting

The next meeting of the Essex Region Source Protection Committee will tentatively be held on February 14, 2024 starting at 4:00 pm at the Essex Civic Centre, Room TBD.



Tom Fuerth
Chair



Katie Stammler
Water Quality Scientist/
Project Manager Source Water Protection



Essex Region Source Protection Committee

Report 01/24

From: Katie Stammer, Source Water Project Manager

Date: Tuesday, February 6, 2024

Subject: S.36 Update – Draft Road Salt Policies

Recommendation

THAT the SPC approve the attached amended policies to be submitted to the MECP for early engagement

Summary

- The Table of Drinking Water Threats was updated in 2021
- The threat circumstances for the storage and application of road salt were changed
- Amended and/or new policies are required in the Essex Region Source Protection Plan
- The SPC discussed possible policy options after review SPC Report 10/23

Discussion

Further to SPC Report 10/23 and following direction of the SPC, ERSPA staff have drafted two new policies for the Application of Road Salt, one new policy for the Handling and Storage of Road Salt and two new policies that address both Application and Handling and Storage of Road Salt.

Significant Risk Circumstances

Application:

The road salt is applied in an area where the default percentage of impervious surface area is $\geq 8\%$

Handling and Storage:

The storage of road salt in a manner that the road salt is exposed to precipitation or runoff from precipitation or snow melt where the quantity stored is more than 20 kg.

Draft policies – Application of Road Salt

1. **S.58 Risk Management Plan**

This policy uses s.58 of the Clean Water Act to require Risk Management Plans for all types of properties, with the exception of residential properties with four units or fewer. In Windsor IPZ-1, there are at least 10 apartment buildings or other high density housing units with parking lots. Based on a cursory review of the aerial photography, most of these parking lots are in the IPZ-2 with driveways in the IPZ-1. Amherstburg IPZ-1 has a few large parcels of vacant land, which could have high density residential units in the future.

Windsor IPZ-1 falls within a residential area with 30-40 private dwellings along a 1.3km stretch of Riverside Drive. Amherstburg IPZ-1 follows 1km of Front Road with 40-50 private lots or dwellings with driveways. These private dwellings would be exempt from needing a Risk Management Plan.

Policy Text:

The Risk Management Official shall enact applicable sections under Part IV of the Clean Water Act to establish a Risk Management Plan (RMP) with the person engaged in the significant drinking water threat activity. The RMP will contain risk management measures that ensure the application of road salt ceases to be or never becomes a threat to sources of drinking water. The Risk Management Plan is expected to be based on existing programs such as “Smart about Salt” for commercial properties and the “Synthesis of Best Management Practices” for municipal properties. The Risk Management Plan may include, but is not limited to, details concerning the amount, rate and area to which road salt is applied. The Risk Management Official will have discretion as to what constitutes a satisfactory Risk Management Plan. This policy applies to properties with any land use, except residential properties consisting of four units or fewer. This policy is accompanied by an Education and Outreach policy to address smaller quantities of stored road salt.

2. **Specify Action**

This policy uses the Specify Action tool to require municipalities (Lakeshore, Windsor, Amherstburg, County of Essex) to review, revise and/or issue a new Salt Management Plan for the application of salt on roadways. In addition to the main roadways, this policy would be expected to affect the municipally owned marina in Lakeshore and municipal parks with parking lots (~2400m² and 3000m²) in Windsor IPZ-1.

Policy Text:

Where the application of road salt is or would be a significant drinking water threat, the municipality shall review and, if necessary, revise or issue new Salt Management Plans for the application of salt on roadways where the application of road salt is a significant drinking water threat. The Salt Management Plan shall include, as a minimum, measures to ensure application rate, timing and location to reduce the potential for salt-related surface water run-off and groundwater infiltration and meet the objectives of Environment Canada's Code of Practice for Environmental Management of Road Salts including the salt vulnerable area mapping to include areas where significant threats can occur.

Draft policies – Handling and Storage of Road Salt

1. **S.58 Risk Management Plan**

This policy uses s.58 of the Clean Water Act to require Risk Management Plans for storage of road salt greater than 100kg for all types of properties, with the exception of residential properties with four units or fewer. This would affect the same properties as the s.58 policy for the application of road salt. An important consideration could be whether private dwellings might store larger volumes if the homeowner is contracted to apply salt. This caveat could be removed at a future date if the RMO/I finds that some threats are not being captured, or the caveat can be added at a future date if the policy is burdensome. The RMPs will require that salt is stored in such a way that it is not exposed, and the RMO/I has discretion over what constitutes a satisfactory RMP. Note that there is no s.57 prohibition policy per the direction of the SPC.

Policy Text:

The Risk Management Official shall enact applicable sections under Part IV of the Clean Water Act to establish a Risk Management Plan (RMP) with the person engaged in the significant drinking water threat activity when the quantity of road salt stored is 100kg or more. The RMP will contain risk management measures that ensure the handling and storage of road salt ceases to be or never becomes a threat to sources of drinking water. The Risk Management Plan will require that road salt be stored in such a way that it is not exposed to precipitation or runoff from precipitation or snow melt and may include, but is not limited to, details concerning the amount, containment type, etc. The Risk Management Official will have discretion as to what constitutes a satisfactory Risk Management Plan. This policy applies to properties with any land use, except residential properties consisting of four units or fewer. This policy is accompanied by an Education and Outreach policy to address smaller quantities of stored road salt.

Draft policies – Application, and Handling and Storage of Road Salt; Storage of Snow

1. **Education and Outreach**

This policy uses education and outreach to address both categories of salt threats and the storage of snow. This policy would address smaller volumes of salt storage and provide information to private homeowners on smart application of salt. Although the properties in the IPZ-1s would be targeted, this information would be available to all residents of the Essex Region through use of social media.

Policy Text:

The Municipalities, in collaboration with the Conservation Authority and/or other bodies shall implement an Education and Outreach program in areas where the handling and storage and/or application of road salt is a significant drinking water threat and/or storage of snow. The program is intended to inform affected landowners of risks to sources of municipal drinking water and help identify means by which risks can be minimized. The education program should be based on existing programs such as "Smart about Salt". The program will also outline the circumstances under which s.58 Risk Management Plans would be required. Further, the program shall be made available on an ongoing basis and updated as is deemed appropriate.

2. Monitoring

This policy uses the monitoring tool to recommend that sampling frequency for sodium chloride in the raw water at drinking water intakes be increased from once every five years to quarterly to get a better sense of how impacted our intakes are and whether the measure we're taking are working.

Policy Text:

In accordance with Section 22(2)-[7] of the Clean Water Act, further monitoring of sodium chloride is warranted for drinking water intakes with vulnerable areas where the application, handling and/or storage of road salt is significant drinking water threat. Currently testing for sodium chloride is required once every five years. We recommend at least quarterly sampling of the raw water.

Participation in these monitoring programs is dependent on adequate resources (including funding and staff capacity) being available.

About the IPZs

The above SDWT circumstances apply to Lakeshore IPZ-1, Windsor IPZ-1 and Amherstburg IPZ-1. The percentage of impervious land was evaluated when the Source Protection Plan and Assessment Report were developed. At that time, each of the affected vulnerable areas fell into the 8-80% Impervious Surface Area. Although imperviousness has not been re-evaluated, it is extremely unlikely that these areas are less impervious now. Previously, application of road salt was only required if imperviousness was >80% so the Essex Regio SPP did not have a policy for this activity. With the reduction of this threshold, policies are now required to address this SDWT.

Lakeshore IPZ-1 is almost entirely occupied by a marina and associated parking lots and parkland. Windsor IPZ-1 falls within a residential area with 30-40 private dwellings along a 1.3km stretch of Riverside Drive. There are at least 10 apartment buildings or other high density housing units with parking lots. Based on a cursory review of the aerial photography, most of these parking lots are in the IPZ-2 with driveways in the IPZ-1. There are also two municipal parks with parking lots (~2400m² and 3000m²). Amherstbug IPZ-1 follows 1km of Front Road with 40-50 private lots or dwellings with driveways. There are also a few large parcels of vacant land, which could have high density residential units in the future.

RECOMMENDATION

THAT the SPC approve the attached amended policies to be submitted to the MECP for early engagement



Katie Stammler, PhD
Project Manager, Source Water Protection

Attachment:

Draft policies for the Application, and Handling and Storage of Road Salt

Current Policy N/A
New Policy No. TBD

Current Policy ID N/A
New Policy ID 12_s.58.V9.ER

12 The application of Road Salt

Chemical

Existing and/or Future Activities

Lakeshore IPZ-1, Windsor IPZ-1, Amherstburg IPZ-1

IPZs with vulnerability scores of 9 or more

Risk Level: Significant

Approach: Manage

Policy Tool: Clean Water Act, Section 58 Risk Management Plan

Implementing Body: Risk Management Official

Legal Effect: Must conform/comply with

Compliance Date:

Existing Threats: Within 5 years of the Source Protection Plan or its amendments coming into effect

Future Threats: When the Source Protection Plan or its amendments come into effect

Significant Risk Circumstance:

The road salt is applied in an area where the default percentage of impervious surface area is 8% or more

Policy Text:

The Risk Management Official shall enact applicable sections under Part IV of the Clean Water Act to establish a Risk Management Plan (RMP) with the person engaged in the significant drinking water threat activity. The RMP will contain risk management measures that ensure the application of road salt ceases to be or never becomes a threat to sources of drinking water. The Risk Management Plan is expected to be based on existing programs such as "Smart about Salt" for commercial properties and the "Synthesis of Best Management Practices" for municipal properties. The Risk Management Plan may include, but is not limited to, details concerning the amount, rate and area to which road salt is applied. The Risk Management Official will have discretion as to what constitutes a satisfactory Risk Management Plan. This policy applies to properties with any land use, except residential properties consisting of four units or fewer. This policy is accompanied by an Education and Outreach policy to address smaller quantities of stored road salt.

12 The application of Road Salt

Chemical

Existing and/or Future Activities

Lakeshore IPZ-1, Windsor IPZ-1, Amherstburg IPZ-1

IPZs with vulnerability scores of 9 or more

Risk Level: Significant

Approach: Specify Action

Policy Tool: Clean Water Act O.Reg. 287/07 Section 26 (1.v.) - Specify Action to be taken to implement Plan or achieve its objectives

Implementing Body: Affected Municipalities (Municipality of Lakeshore, City of Windsor, Town of Amherstburg, County of Essex)

Legal Effect: Must conform/comply with

Compliance Date:

Existing Threats: Within 5 years of the Source Protection Plan or its amendments coming into effect

Future Threats: When the Source Protection Plan or its amendments come into effect

Significant Risk Circumstance:

The road salt is applied in an area where the default percentage of impervious surface area is 8% or more

Policy Text:

Where the application of road salt is or would be a significant drinking water threat, the municipality shall review and, if necessary, revise or issue new Salt Management Plans for the application of salt on roadways where the application of road salt is a significant drinking water threat. The Salt Management Plan shall include, as a minimum, measures to ensure application rate, timing and location to reduce the potential for salt-related surface water run-off and groundwater infiltration and meet the objectives of Environment Canada's Code of Practice for Environmental Management of Road Salts including the salt vulnerable area mapping to include areas where significant threats can occur.

12 The application of Road Salt

13 The handling and storage of Road Salt

14 The storage of Snow

Chemical

Existing and/or Future Activities

Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2, Amherstburg IPZ-1
IPZs with vulnerability scores of 8 or more

Risk Level: Significant

Approach: Education and Outreach

Policy Tool: Clean Water Act, Section 22(7) - Education & Outreach

Implementing Body: ERCA and Affected Municipalities

Legal Effect: Must conform/comply with

Compliance Date:

Within 2 years of the Source Protection Plan or its amendments coming into effect

Significant Risk Circumstances:

- The road salt is applied in an area where the default percentage of impervious surface area is 8% or more (Vulnerability Score 9)
- The storage of road salt in a manner that the road salt is exposed to precipitation or runoff from precipitation or snow melt where the quantity stored is more than 20 kg. (Vulnerability Score 9)
- The storage of snow >200m² (Vulnerability Score 9)
- The storage of snow >2000m² (Vulnerability Score 8)

Policy Text:

The Municipalities, in collaboration with the Conservation Authority and/or other bodies shall implement an Education and Outreach program in areas where the handling and storage and/or application of road salt and/or storage of snow is a significant drinking water threat. The program is intended to inform affected landowners of risks to sources of municipal drinking water and help identify means by which risks can be minimized. The education program should be based on existing programs such as "Smart about Salt". The program will also outline the circumstances under which s.58 Risk Management Plans would be required. Further, the program shall be made available on an ongoing basis and updated as is deemed appropriate.

Current Policy N/A
New Policy No. TBD

Current Policy ID N/A
New Policy ID 12&13_Monitoring.V9.ER

12 The application of Road Salt

13 The handling and storage of Road Salt

Chemical

Existing and/or Future Activities

Lakeshore IPZ-1, Windsor IPZ-1, Amherstburg IPZ-1
IPZs with vulnerability scores of 9 or more

Risk Level: Significant

Approach: Monitoring

Policy Tool: Clean Water Act, Section 22(7) - Monitoring

Implementing Body: Affected Municipalities

Legal Effect: Must conform/comply with

Compliance Date:

Within 2 years of the Source Protection Plan or its amendments coming into effect

Significant Risk Circumstance:

The road salt is applied in an area where the default percentage of impervious surface area is 8% or more

The storage of road salt in a manner that the road salt is exposed to precipitation or runoff from precipitation or snow melt where the quantity stored is more than 20 kg.

Policy Text:

In accordance with Section 22(2)-[7] of the Clean Water Act, further monitoring of sodium chloride is warranted for drinking water intakes with vulnerable areas where the application, handling and/or storage of road salt is significant drinking water threat. Currently testing for sodium chloride is required once every five years. We recommend at least quarterly sampling of the raw water.

Participation in these monitoring programs is dependent on adequate resources (including funding and staff capacity) being available.

13 The handling and storage of Road Salt

13.1 Handling and Storage of Road Salt – Exposed to Precipitation or Runoff

Chemical

Existing and/or Future Activities

Lakeshore IPZ-1, Windsor IPZ-1, Amherstburg IPZ-1

IPZs with vulnerability scores of 9 or more

Risk Level: Significant

Approach: Manage

Policy Tool: Clean Water Act, Section 58 Risk Management Plan

Implementing Body: Risk Management Official

Legal Effect: Must conform/comply with

Compliance Date:

Existing Threats: Within 5 years of the Source Protection Plan or its amendments coming into effect

Future Threats: When the Source Protection Plan or its amendments come into effect

Significant Risk Circumstance:

The storage of road salt in a manner that the road salt is exposed to precipitation or runoff from precipitation or snow melt where the quantity stored is more than 20 kg.

Policy Text:

The Risk Management Official shall enact applicable sections under Part IV of the Clean Water Act to establish a Risk Management Plan (RMP) with the person engaged in the significant drinking water threat activity when the quantity of road salt stored is 100kg or more. The RMP will contain risk management measures that ensure the handling and storage of road salt ceases to be or never becomes a threat to sources of drinking water. The Risk Management Plan will require that road salt be stored in such a way that it is not exposed to precipitation or runoff from precipitation or snow melt and may include, but is not limited to, details concerning the amount, containment type, etc. The Risk Management Official will have discretion as to what constitutes a satisfactory Risk Management Plan. This policy applies to properties with any land use, except residential properties consisting of four units or fewer. This policy is accompanied by an Education and Outreach policy to address smaller quantities of stored road salt.



Essex Region Source Protection Committee

Report 02/24

From: Katie Stammer, Source Water Project Manager

Date: Thursday, February 8, 2024

Subject: S.36 Update – Draft Snow Storage Policies

Recommendation

THAT the SPC approve the attached amended policies to be submitted to the MECP for early engagement

Summary

- The Table of Drinking Water Threats was updated in 2021
- The threat circumstances for the storage snow were changed
- Amended and/or new policies are required in the Essex Region Source Protection Plan
- The SPC discussed possible policy options after review SPC Report 11/23

Discussion

Further to SPC Report 11/23 and following direction of the SPC, ERSPA staff have three new policies for the Storage of Snow. There is one new shared Education and Outreach policy that also addresses handling, storage and application of salt.

Significant Risk Circumstances

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.

1. The area upon which snow is stored is >200m² (Vulnerability Score 9)
2. The area upon which snow is stored is >2000m² (Vulnerability Score 8)

A storm water drainage system outfall that serves a Snow Disposal Facility

1. The area upon which snow is stored is >200m² (Vulnerability Score 9)
2. The area upon which snow is stored is >2000m² (Vulnerability Score 8)

Draft policies – Storage of Snow

See SPC Report 01/24 for the **Education and Outreach** policy that includes the storage of snow in the significant drinking water threat circumstances.

1. **S.58 Risk Management Plan**

This policy uses s.58 of the Clean Water Act to require Risk Management Plans for commercial and industrial properties that store snow sufficient to be considered a SDWT. Parking lots for high density residential properties would be exempt in accordance to the Director Technical Rules. All vulnerable areas have commercial properties that will require Risk Management Plans, there may be industrial properties in Windsor IPZ-2.

Policy Text:

The Risk Management Official shall enact applicable sections under Part IV of the Clean Water Act to establish a Risk Management Plan (RMP) with the person engaged in the significant drinking water threat activity. The RMP will contain risk management measures that ensure the storage of snow ceases to be or never becomes a threat to sources of drinking water. The Risk Management Plan may include, but is not limited to, details concerning the volume, management of runoff, monitoring and record keeping, etc. The Risk Management Official will have discretion as to what constitutes a satisfactory Risk Management Plan. This policy applies to properties with commercial, or industrial land use. Notwithstanding the above, emergency snow storage may be permitted. This policy is accompanied by an Education and Outreach policy.

2. **Prescribed Instrument**

This policy uses Prescribed Instrument – Environmental Compliance Approval (Certificate of Approval), Section 39, Part V, the Environmental Protection Act to manage the storage of snow at snow disposal facilities, which require an ECA to operate. It is anticipated that this will only apply to the City of Windsor snow disposal facility at the Ford Test Track in Windsor IPZ-2

Policy Text:

In reviewing existing Environmental Compliance Approvals (Certificates of Approval) for the storage of snow at a Snow Disposal Facility in IPZ's with vulnerability scores of 8 or higher, the Ministry of Environment shall ensure that the terms and conditions in the Environmental Compliance Approvals (Certificates of Approval) adequately protect the sources of drinking water.

3. Specify Action

This policy uses the Specify Action tool to direct municipalities to require best management practices for snow storage at site plan approval. This policy may be redundant to the s.58 Risk Management Plan policy.

Policy Text:

Where the future storage of snow would be a significant drinking water threat, the municipal planning authority shall require at site plan approval that best management practices for site design to protect drinking water sources be included to manage snow storage and the associated melt water at snow storage facilities that meet the criteria to be a SDWT. The municipal planning authority shall document the number of new site plan applications reviewed for the storage of snow to be included in annual reporting to the Source Protection Authority by February 1 of each year.

About the IPZs

The above SDWT circumstances apply to Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2, and Amherstburg IPZ-1.

Lakeshore IPZ-1 is almost entirely occupied by a marina and associated parking lots and parkland. Windsor IPZ-1 falls within a residential area with 30-40 private dwellings along a 1.3km stretch of Riverside Drive. There are at least 10 apartment buildings or other high density housing units with parking lots. Based on a cursory review of the aerial photography, most of these parking lots are in the IPZ-2 with driveways in the IPZ-1. There are also two municipal parks with parking lots (~2400m² and 3000m²). Windsor IPZ-2 covers an area of approximately 16km² (16,000,000m²). The western boundary is St. Luke Road (just east of Walker Road), the southern boundary is Tecumseh Road and the eastern boundary is Florence Avenue. The norther boundary includes the entire Detroit River shoreline from Walker Road to Sandpoint Beach. There is varied land use throughout this area. Amherstbug IPZ-1 follows 1km of Front Road with 40-50 private lots or dwellings with driveways as well as some business and the Amherstburg water treatment plant. There are also a few large parcels of vacant land, which could have high density residential units in the future. The table below summarizes the zoning for each of these areas. Because of the nature of the land use, policies for snow storage are required.

Vulnerable Area	Zoning
Lakeshore (Belle River) IPZ-1	Commercial
Windsor IPZ-1	Residential, commercial, industrial and manufacturing
Windsor IPZ-2	Residential, commercial, industrial and manufacturing
Amherstburg IPZ-1	Residential, Commercial Neighbourhood, Light Industrial, Industrial, and Environmental Protection

RECOMMENDATION

THAT the SPC approve the attached amended policies to be submitted to the MECP for early engagement



Katie Stammler, PhD
Project Manager, Source Water Protection

Attachment:

1. Draft policies for the storage of snow

14 Storage of Snow

Chemical

Existing and/or Future Activities

Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2, Amherstburg IPZ-1
IPZs with vulnerability scores of 8 or more

Risk Level: Significant

Approach: Manage

Policy Tool: Clean Water Act, Section 58 Risk Management Plan

Implementing Body: Risk Management Official

Legal Effect: Must conform/comply with

Compliance Date:

Existing Threats: Within 5 years of the Source Protection Plan or its amendments coming into effect

Future Threats: When the Source Protection Plan or its amendments come into effect

Significant Risk Circumstance:

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.

1. The area upon which snow is stored is >200m² (Vulnerability Score 9)
2. The area upon which snow is stored is >2000m² (Vulnerability Score 8)

Policy Text:

The Risk Management Official shall enact applicable sections under Part IV of the Clean Water Act to establish a Risk Management Plan (RMP) with the person engaged in the significant drinking water threat activity. The RMP will contain risk management measures that ensure the storage of snow ceases to be or never becomes a threat to sources of drinking water. The Risk Management Plan may include, but is not limited to, details concerning the volume, management of runoff, monitoring and record keeping, etc. The Risk Management Official will have discretion as to what constitutes a satisfactory Risk Management Plan. This policy applies to properties with commercial, or industrial land use. Notwithstanding the above, emergency snow storage may be permitted. This policy is accompanied by an Education and Outreach policy.

14 Storage of Snow

Chemical

Existing and/or Future Activities

Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2, Amherstburg IPZ-1
IPZs with vulnerability scores of 8 or more

Risk Level: Significant

Approach: Manage

Policy Tool: Prescribed Instrument – Environmental Compliance Approval (Certificate of Approval),
Section 39, Part V, the Environmental Protection Act

Implementing Body: MECP

Legal Effect: Must conform/comply with

Compliance Date:

Existing Threats: Within 5 years of the Source Protection Plan or its amendments coming into effect

Future Threats: When the Source Protection Plan or its amendments come into effect

Significant Risk Circumstance:

A storm water drainage system outfall that serves a Snow Disposal Facility

1. The area upon which snow is stored is $>200\text{m}^2$ (Vulnerability Score 9)
2. The area upon which snow is stored is $>2000\text{m}^2$ (Vulnerability Score 8)

Policy Text:

In reviewing existing Environmental Compliance Approvals (Certificates of Approval) for the storage of snow at a Snow Disposal Facility in IPZ's with vulnerability scores of 8 or higher, the Ministry of Environment shall ensure that the terms and conditions in the Environmental Compliance Approvals (Certificates of Approval) adequately protect the sources of drinking water.

14 Storage of Snow

Chemical

Existing and/or Future Activities

Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2, Amherstburg IPZ-1
IPZs with vulnerability scores of 8 or more

Risk Level: Significant

Approach: Manage

Policy Tool: Clean Water Act O.Reg. 287/07 Section 26 (1.v.) - Specify Action to be taken to implement Plan or achieve its objectives

Implementing Body: Affected Municipalities (Municipality of Lakeshore, City of Windsor, Town of Amherstburg)

Legal Effect: Must conform/comply with

Compliance Date:

Existing Threats: Within 5 years of the Source Protection Plan or its amendments coming into effect

Future Threats: When the Source Protection Plan or its amendments come into effect

Significant Risk Circumstance:

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.

1. The area upon which snow is stored is >200m² (Vulnerability Score 9)
2. The area upon which snow is stored is >2000m² (Vulnerability Score 8)

A storm water drainage system outfall that serves a Snow Disposal Facility

1. The area upon which snow is stored is >200m² (Vulnerability Score 9)
2. The area upon which snow is stored is >2000m² (Vulnerability Score 8)

Policy Text:

Where the future storage of snow would be a significant drinking water threat, the municipal planning authority shall require at site plan approval that best management practices for site design to protect drinking water sources be included to manage snow storage and the associated melt water at snow storage facilities that meet the criteria to be a SDWT. The municipal planning authority shall document the number of new site plan applications reviewed for the storage of snow to be included in annual reporting to the Source Protection Authority by February 1 of each year.

Rationale:

Snow removed from roads and parking lots can be contaminated with salt, oil, grease and heavy metals from vehicles, litter, and airborne pollutants. The activities around snow storage and handling include:

- Snow that is pushed into large piles on a property (e.g., stored in parking lots)
- Snow transported to a central site from other locations (e.g., snow disposal sites); and
- Large snowbanks along roads that are close to surface water intakes (if accumulation meets area circumstances identified below).

Snowbanks on roads and parking areas either melt on site or are transported elsewhere to be melted or stockpiled. A number of chemicals from the storage of snow could make their way into drinking water sources including chloride, nitrogen, copper, petroleum hydrocarbons, cyanide, sodium, lead and zinc.

This threat is closely linked to the application, handling, and storage of road salt, because snow is able to pick up the salt that has been applied to roads. A reduction in the amount of salt applied to roads and parking areas could reduce the amount of road salt that contaminates snow. The main source of sodium, chloride and cyanide in snow is road salt; the other contaminants are generally from vehicle fluids, exhaust, brake linings, and tire and engine wear.

These policies adhere to the circumstances in the 2021 Director Technical Rule that include a threshold of 2000m² in IPZs with scores greater than 8 (Windsor IPZ-2) and 200m² in IPZs with scores greater than 9 (Lakeshore IPZ-1, Windsor IPZ-1, and Amherstburg IPZ-1). As a general rule, a parking space is approximately 30m². This allotment accounts for traffic aisles, end caps, entrance and exit, and space between cars. Therefore, a 200m² parking lot could hold 6-7 cars and a 2000m² parking lot could hold up to 65 cars. The above SDWT circumstances apply to Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2, and Amherstburg IPZ-1.

Lakeshore IPZ-1 is almost entirely occupied by a marina and associated parking lots and parkland. Amherstburg IPZ-1 follows 1km of Front Road with 40-50 private lots or dwellings with driveways as well as some business and the Amherstburg water treatment plant. There are also a few large parcels of vacant land, which could have high density residential units in the future.

Windsor IPZ-1 falls within a residential area with 30-40 private dwellings along a 1.3km stretch of Riverside Drive. There are at least 10 apartment buildings or other high density housing units with parking lots. Based on a cursory review of the aerial photography, most of these parking lots are in the IPZ-2 with driveways in the IPZ-1. There are also two municipal parks with parking lots (~2400m² and 3000m²). Windsor IPZ-2 covers an area of approximately 16km² (16,000,000m²). The western boundary is St. Luke Road (just east of Walker Road), the southern boundary is Tecumseh Road and the eastern boundary is Florence Avenue. The northern boundary includes the entire Detroit River shoreline from Walker Road to Sandpoint Beach. There is varied land use throughout this area. There is a known snow disposal facility for the City of Windsor located at 3001 Seminole Street (Ford Test Track)

Further Rationale about policy decisions needed:

All snow disposal sites should be evaluated by the MECP. According to the [Guidelines on Snow Disposal and De-icing Operations in Ontario](#), land disposal sites must be accessible, large enough to contain the projected maximum snow load and close to where snow is collected to be economically practical. Sites need to meet criteria based on accessibility, noise, alternate uses of the site, and visual considerations. The following criteria regarding drainage must also be considered:

1. Surface Drainage Factors

- The site should preferably be remote from surface watercourses. The construction of berms and dykes may be required to prevent direct drainage to a watercourse. The distance from surface water will be dependent on land slope, soil permeability, and the extent of dyking which is practicable and economical.
- The quantity of snow which can be stock-piled at a particular site should be assessed in relation to estimated runoff rates and quality, the dilution capacity of the watercourse to which the melt will discharge, and downstream water uses.
- Care should be taken in site selection that deposited snow will not seriously obstruct natural drainage patterns, and that drainage from the site will not adversely affect adjoining property.