



SAUGEEN, GREY SAUBLE, NORTHERN BRUCE PENINSULA SOURCE PROTECTION COMMITTEE MEETING #84

A G E N D A

Friday, November 27, 2020

1:15 p.m. – 4:00 p.m.

Video Conference via internet app WebEx
(See instructions in November 16/20 email)

CALL TO ORDER

1. **Adoption of Agenda**
2. **Declaration of Pecuniary or Conflict of Interest**
3. **Adoption of Minutes of July 24, 2020 meeting**
4. **Matters Arising from the Minutes**
 - None
5. **Correspondence**
 - Letter from Wilson Associates Consulting Hydrogeologists dated October 17, 2020 respecting the Blair's Grove municipal water supply
6. **Reports**
 - Administration Report – **Report 6a attached**
 - Communications Report – **Report 6b attached**
7. **Presentation**
 - 2019 Annual Progress Reporting Summary Presentation – Olga Yudina, MECP
8. **New Business**
 - Liquid Hydrocarbon Pipeline Threat – **Report 8a attached**
 - East Linton Events-Based Area SPP Amendments – **Report 8b attached**
 - Ruhl Lake Intake E.Coli Threats – **Report 8c attached**
 - Salt Applications & Storage Threats – **Report 8d attached**
9. **Other Business**
10. **Next Meeting and Adjournment**

SOURCE PROTECTION COMMITTEE

MINUTES – MEETING #83

MEETING: SOURCE PROTECTION COMMITTEE

DATE: FRIDAY, JULY 24, 2020

TIME: 1:30 P.M.

LOCATION: TELECONFERENCE

CALL TO ORDER

Chair called the meeting to order at 1:30 p.m.

In Attendance: Chair, Bill Twaddle
Bruce Davidson, Stan Eby, Robert Emerson, John Fruin, Dick Hibma,
Dennis Kefalas, Tara Saab, Gord Timmerman, Jim Uram

Others Present: Olga Yudina, Ex-officio, Ministry of the Environment, Conservation and
Parks (MECP)
Carl Seider, Project Manager, Drinking Water Source Protection (DWSP)
Nancy Guest, Recording Secretary, DWSP

Also in Attendance: Tim Lanthier, CAO, Grey Sauble Conservation
Jennifer Stephens, General Manager/Secretary-Treasurer, Saugeen Conservation
Peggy Van Mierlo-West, CAO, Northern Bruce Peninsula
Karen Gillan, Communications Specialist, DWSP

Regrets: Mitch Twolan, Angela Newman, Les Nichols

The Chair introduced and welcomed Tim Lanthier, Jennifer Stephens and Peggy Van Mierlo-West, general managers for the three Source Protection Authorities, as well as welcoming back Olga Yudina as the MECP liaison.

1. Adoption of Agenda

Motion No.
SPC-20-302

Moved by Dick Hibma
Seconded by Jim Uram

THAT the Agenda be adopted as distributed.

Carried

2. Disclosure of Pecuniary or Conflict of Interest

Source Protection Committee (SPC) members were reminded to disclose any pecuniary interest that may arise during the course of the meeting. No disclosures of pecuniary interest were expressed at this time.

3. Adoption of Minutes

**Motion No.
SPC-20-303**

**Moved by Bruce Davidson
Seconded by John Fruin**

THAT the Minutes of the March 27, 2020 Source Protection Committee meeting be adopted as distributed.

Carried

4. Matters Arising from the Minutes

No matters arose from the previous minutes.

5. Correspondence

Letter from Erin Harkins, MECP dated July 8, 2020 respecting early engagement comments was **noted and filed.**

6. Reports

Administration Report 6a

The Project Manager reviewed Report 6a and advised that approval was received from the Ministry of the Environment, Conservation and Parks (MECP) with respect to the transfer payment required to administer the program for another year. Olga Yudina has returned as the MECP liaison and is familiar with this region and its concerns.

A commemoration ceremony for the 20th anniversary of the Walkerton water tragedy was postponed due to COVID-19 concerns. There was a discussion amongst the SPC members to keep the memory of this disaster in the minds of everyone, especially those who may be too young to remember. It was suggested that an educational and informational package be available to municipal councils and any other interested parties to educate them on the details of the Walkerton tragedy.

There will be two SPC member representatives due for renewal or replacement before the end of the year, one public/environmental sector representative and one agricultural sector representative, and the Project Manager advised that he will be in touch with the members whose term is ending.

The Project Manager and Chair met virtually with the Source Protection Authorities for Saugeen Conservation, Grey Sauble Conservation and the Municipality of Northern Bruce Peninsula respecting their respective support of the Annual Progress Report, which was successfully submitted to the MECP on May 1, 2020.

As well, the Project Manager and Chair participated in meetings with Drinking Water Source Protection (DWSP) project managers and SPC chairs. The MECP provided an overview of provincial implementation of source protection plan policies and advised that overall implementation is 98% complete.

Communications Report 6b

The Communications Specialist reviewed Report 6b and noted the internet links to a number of interviews and articles respecting Walkerton, as well as the source water program. A scholarship has been initiated by the Municipality of Brockton to support local students who wish to pursue careers in environmental science or clean water management. Details of the Walkerton Clean Water Legacy Scholarship can be found at home.waterprotection.ca.

A discussion followed respecting the availability of an information package respecting the details of the Walkerton water tragedy. DWSP staff, with help from SPC members, will assemble information that can be shared on the Source Water website, and with municipal councils, and other interested parties.

Several activities were cancelled due to the COVID-19 risk. The Annual Arbor Day Tree Sales at the Grey Sauble and Saugeen Conservation Authorities, and the Hibou Free Family Fun Day at the Hibou Conservation Area scheduled for Saturday, June 20, 2020, were cancelled as well as the Grey Bruce Children's Water Festival scheduled for May 12-14, 2020. The Grade 4 students who missed the Festival this year will be invited back next year as Grade 5 senior stewards. A treasurer is needed by the Festival organizing committee, as well as volunteer committee members.

7. New Business

Proposed Source Protection Plan Road Salt Amendments Report 7a

The Project Manager reviewed Report 7a and advised that MECP is currently reviewing road salt application and storage threats as part of its review of the Director's Technical Rules. DWSP staff reviewed salt threat policies currently in place in other regions that have been approved by the Ministry. DWSP staff drafted additions to the current policy for salt management threats with a risk management plan; a salt management plan for municipal implementation; Ministry of Transportation (MTO) roads; and the handling and storage of road salt.

The SPC discussed all aspects of salt management and agreed with the wording of the additions to the existing policies, with the understanding that revised wording would be presented at the next SPC meeting.

**Motion No.
SPC-20-304**

**Moved by Jim Uram
Seconded by Dennis Kefalas**

THAT the Source Protection Committee for the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region approve the draft policies relating to the proposed amendments noted in Report 7a of the July 24, 2020 Source Protection Committee meeting to the Source Protection Plan pending the implementation of any changes agreed to by the Source Protection Committee during its meeting on July 24, 2020; and further,

THAT Drinking Water Source Protection staff be directed to continue with Source Protection Plan consultation activities as required by O.Reg. 287/07.

Carried

Proposed Source Protection Plan East Linton EBA Amendments Report 7b

The Project Manager reviewed Report 7b and advised that he has had some discussions with the Ministry respecting the methodology for spill modeling. The preliminary results of the modeled spills show a range in minimum volumes that would cause an exceedance at the East Linton intake from approximately 500 to 10,000 litres, depending on the location of the spill, which would constitute a significant drinking water threat. The existing policy is meant to address fuel storage threats and could be amended to address existing *and* future activities.

The SPC discussed the proposed changes to Policy 15-05 respecting a risk management plan for fuel near Great Lakes intakes and agreed with the wording to the proposed amendments.

**Motion No.
SPC-20-305**

**Moved by Dick Hibma
Seconded by John Fruin**

THAT the Source Protection Committee for the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region approves the draft policies relating to the proposed amendments to the Source Protection Plan noted in Report 7b of the July 24, 2020 Source Protection Committee meeting pending the implementation of any changes agreed to by the Source Protection Committee during its meeting on July 24, 2020; and further,

THAT Drinking Water Source Protection staff be directed to continue with Source Protection Plan consultation activities as required by O.Reg. 287/07.

Carried

8. Other Business

There was no other business.

9. Confirmation of Next Meeting and Adjournment

The next Committee meeting will be tentatively held on **Friday, November 27, 2020** from 1:30 pm to 4:00 pm. Details will be confirmed closer to the date.

There being no further business, Stan Eby made a motion to adjourn at 3:10 pm.

Bill Twaddle
Chair

Nancy Guest
Recording Secretary

DRAFT

Wilson Associates

Consulting Hydrogeologists

October 17, 2020

Ministry of the Environment, Conservation and Parks
Attention: Permit to Take Water Director
Director, Environmental Approvals Access and Service Integration Branch
135 St. Clair Avenue West
1st Floor
Toronto, Ontario
M4V 1P5

Dear Sir or Madam:

Re: Category 3 Permit to Take Water Amendment Application
Permit No. 6154-988KDE
Blairs Grove Municipal Water Supply
Township of Huron-Kinloss, County of Bruce

Enclosed please find a completed Category 3 Application for the amendment of Permit to Take Water 6154-988KDE to substitute Blairs Grove Well 3 for Blairs Grove Well 2 at the Blairs Grove Municipal Well supply, Township of Huron-Kinloss, County of Bruce.

Blairs Grove Well 3 was drilled in 1992, and was subjected to formal testing in 1994 by Dames & Moore, Canada, however it was never connected to the water supply system. Due to the deterioration of currently-permitted Blairs Grove Well 2 (drilled in 1982), Blairs Grove Well No. 3 is required as an immediate replacement for Well No. 2. Confirmatory well testing of Blairs Grove Well 3 in September 2020 indicated that the well remains a viable source. This application is urgent due to the deterioration of Blairs Grove Well 2. Blairs Grove Well 2 will be repaired or abandoned, as determined to be appropriate.

Included with the application are:

- A copy of the October 16, 2020 Confirmatory Well Re-Evaluation Report, prepared by Wilson Associates.
- Water well records for the Municipal wells, included with Wilson Associates report.
- A copy of the Ontario Base Map showing the location of the Municipal wells and reported water wells within 500m, map included with the Wilson Associates report.
- Copy of Permit No. 6154-988KDE, included with the Wilson Associates report.
- Completed Schedule 1.

Water will be withdrawn from Blairs Grove Well 3 and distributed to the existing Blairs Grove municipal water supply. The pumping rates are based on historical testing data and the existing Permitted rates of withdrawal. All water is returned to the environment via sewage systems and local landowner usage.

Should there be any technical questions, please contact this office.

Yours sincerely,

IAN D. WILSON ASSOCIATES LIMITED

A handwritten signature in blue ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Geoffrey Rether, P. Geo.

REPORT #6a

TO: SOURCE PROTECTION COMMITTEE

DATE: NOVEMBER 27, 2020

SUBJECT: ADMINISTRATION REPORT

Source Protection Committee Member Renewal/Replacement

On October 23, 2020, the Source Protection Management Committee held a meeting to discuss the renewal/replacement of the two remaining positions on the Source Protection Committee (one Agricultural, and one Public/Environmental). These appointments are for a minimum period of six months and a maximum period of five years, as specified under O.Reg. 288/07.

The current Agricultural Sector representative, Robert Emerson, has expressed interest in remaining on the Committee for one more term. Robert has been a member of the Committee since its inception and has been a strong advocate for the agricultural sector while maintaining good ties with partners such as the Ontario Federation of Agriculture and local Grey and Bruce Federations of Agriculture.

The representative for the Public/Environmental Sector, Bruce Davidson, has expressed his intent to resign from the Committee at the end of 2020. Bruce has been an extremely strong advocate for the people of Walkerton as well as clean water and the environment, and his passion and experience will be greatly missed on the Committee.

As part of a previous round of Source Protection Committee member renewals, Dan Orr was recommended by the Management Committee at its meeting on October 23rd, 2020 and formally appointed by the Grey Sauble Source Protection Authority on November 25, 2020, pending the resignation of the current Sector representative.

Dan Orr has worked with the Ministry of the Environment, Conservation and Parks for over 35 years with a range of experience and responsibilities under the Environmental Monitoring & Reporting Branch and Central Region Office. At the Ministry, he was involved in numerous Environmental Assessment (EA) reviews, Class EAs and Permits to Take Water. Dan more recently worked for York Region on managing and developing solutions for water management issues, such as for major sewer and highway development projects. We are looking forward to having Dan formally join the team at our next SPC meeting.

Director's Technical Rule Changes Update

Topic	Proposed amendment presented at the engagement session Nov.2019	Proposed amendments as per the official EBR posting Aug. 2020
Road Salt Storage	Proposed volumes are: (1) Any quantity for uncovered storages; (2) 100 kg or greater for covered storage excluding engineered facilities, (3) 500 tonnes or greater for engineered facility or structure.	Proposed volumes for significant risks are: (1) ≥ 10 kg for IPZs scored 10 and ≥ 20 kg for IPZs scored 9 and WHPAs scored 10 for uncovered storages (2) ≥ 100 kg for covered storage. (3) designed facility / structure cannot be a significant risk.
Handling and Storage of Fuel	Combine both threat sub-categories to capture the most conservative risk for both the handling and storage of fuel.	Combine both threat sub-categories to capture the most conservative risk for both the handling and storage of fuel, and Above grade H&S of fuel of 250L or greater in WHPA 10 will be significant risk.
Handling and Storage of DNAPL	Adopt the list of activities from O. Reg. 153 (brownfields) where DNAPL is likely to be stored or handled. Enable SPAs/SPCs to add activities beyond the list of DNAPL activities if there is evidence to support it.	Clarification: The list is not mandatory but help guide SPAs/RMOs to identify properties that handle and or store DNAPLs.
Handling and Storage of Commercial Fertiliser	Risk based on: <ul style="list-style-type: none"> Storage of fertilizer in a liquid form, and; Individual storage on the same property regardless of the type of land use. 	Risk based on the total storage* on the same property regardless of the type of land use. <i>* Use professional judgement to determine whether the risk is associated with Individual or total storage of fertilizer, e.g. local characteristics of the property.</i>

Source Protection Plan Amendments Update

Proposed amendments to the Source Protection Plan are based on items identified in the workplan, with a target date of March 2021 to complete the work. It is important to note that the requirements to conduct consultations with affected parties (e.g. landowners, municipalities, etc.), as specified under the *Clean Water Act*, will be a key part of this amendment process. Given the current situation with the pandemic outbreak, these timelines are subject to change.

Staff have also recently been notified that a new well in Blair's Grove (Huron-Kinloss) will be required on an emergency basis as the well casing on the current production well (Well 2) has caved in. Another monitoring well (Well 3) is within 23 metres is currently being inspected as a possible alternative.

Staff have reviewed the results of the pumping tests for Well 2 & 3 that were conducted on September 24-25, 2020 and noted the following key information. Analysis of the pump test demonstrated that Well 2 and Well 3 are in the same aquifer, with similar depths (69.5m and 74.1m), and long-term interference risk from Well 3 is anticipated to be effectively identical to Well 2.

DWSP Work Plan 2021/2022

Staff have not received a formal request to submit a draft 2021/2022 Drinking Water Source Protection (DWSP) Program workplan regarding program funding approvals. Staff anticipate that the workplan template will be similar to last year and are proposing to submit a similar request for resources based on on-going Source Protection Program requirements. The proposed staffing breakdown for the 2021/2022 workplan is as follows:

Administrative Assistant	0.2 Full-time Equivalent
Program Supervisor/Communications Specialist	0.6 Full-time Equivalent
GIS Specialist	0.2 Full-time Equivalent
Project Manager	0.8 Full-time Equivalent
TOTAL:	1.8 Full-time Equivalent

The workplan includes: DWSP program and Source Protection Committee maintenance; completion of annual reporting requirements and support meetings with municipalities; implementation of Source Protection Plan policies identifying the need for 100% awareness of implementation obligations by implementing bodies; and consultation with municipalities and other stakeholders regarding proposed amendments to Source Protection Plan policies as specified under the Section 36 workplan submission.

Respectfully submitted,



Carl Seider
Project Manager
Drinking Water Source Protection



REPORT #6b

TO: SOURCE PROTECTION COMMITTEE

DATE: NOVEMBER 27, 2020

SUBJECT: COMMUNICATIONS

Consultation on s.36 Workplan 2020-2021

Challenges – Covid-19 restrictions on public gatherings. Conservation Authority offices closed to the public.

Consultation Summary:

Update No.	Description of Proposed Review and Update	Applicable Document(s)	Implementer of Relevant SPP Policy	Consultation Target Audience
1	New wellhead protection area mapping and vulnerability scores	Assessment Report (AR) for vulnerability mapping and risk assessments Source Protection Plan (SPP) for policy changes	Municipality of West Grey, Township of Huron Kinloss and Risk Management Official	Durham Well 2A landowners Blair’s Grove landowners
2	Assess the new prescribed threat per <i>Clean Water Act</i> O.Reg. 287/07 - liquid hydrocarbon pipeline	AR for assessment of pipeline risk Explanatory Document for rationale	N/A	N/A - There is no anticipated impact as there are no current or planned liquid fuel pipelines in Region.
3	Assess and make appropriate updates to align with the March 2017 Technical Rule changes including the Tables of Drinking Water Threats that are mandatory to apply	AR for assessment SPP for any policies	Municipalities	Clerical changes

4	Further assess and make appropriate updates to align with the March 2017 Technical Rule changes including the Tables of Drinking Water Threats that are enabling provisions. <ul style="list-style-type: none"> Possible changes to agricultural activity policies for Ruhl Lake IPZ-2 	AR for assessment SPP for any policies	Municipality of Brockton for Ruhl Lake IPZ	If required Ruhl Lake landowners Municipalities
5	Policy to include a cycle of reviews and updates to the municipal salt management plan. Phase 2 Technical Rules changes to impervious surface area calculations for salt application threats could increase the number of areas where salt application threats may apply. Also need to review salt storage threat policy.	AR for assessment SPP for any policies	Municipalities	Municipalities Private Contractors who manage salt application
6	Include a written direction policy for Risk Management Officials (RMOs) under Part IV S.59 screenings to allow for Risk Management Official discretion on screenings.	SPP – General Land Use Restriction Policies	Risk Management Official	Source Protection Committee and neighbouring Risk Management Offices (RMOs)
7	Review of Monitoring Policies based on feedback from implementing bodies (municipalities) to streamline annual reporting requirements.	SPP – Monitoring Policies	Municipalities	Municipalities
8	Review Events-Based Area modeling results used for Owen Sound/East Linton intakes given recent changes to the Ontario Drinking Water Standard for benzene concentration has changed from 0.005 mg/L to 0.001 mg/L, resulting in potential significant drinking water threats and need for a possible IPZ-3/EBA delineation.	AR for assessment SPP for any policies	Township of Georgian Bluffs council Risk Management Official	East Linton area landowners Township of Georgian Bluffs

Tactics:

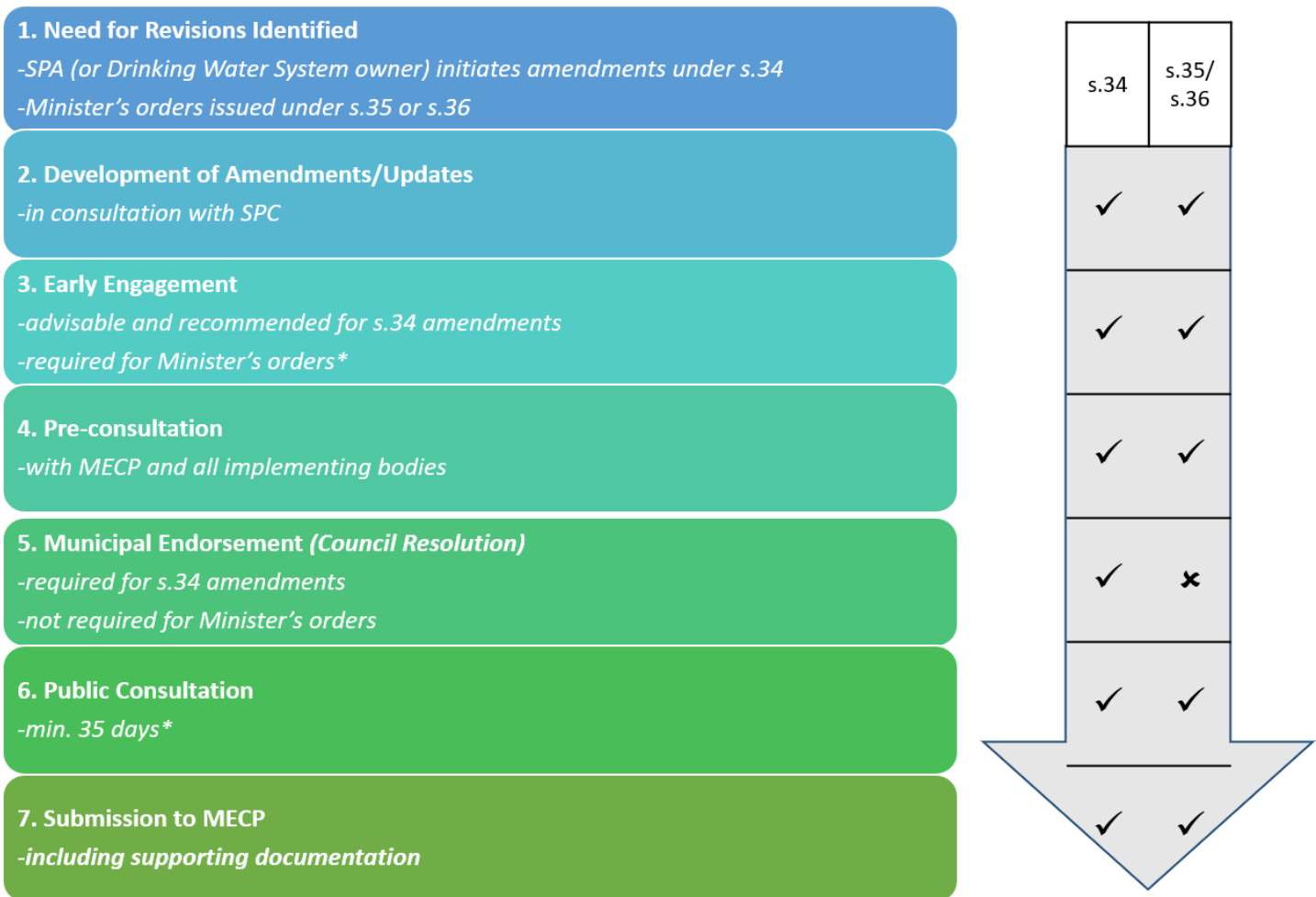
The following tactics would support the consultation on the s.34 updates to the assessment reports, source protection plan and explanatory document.

- Website: A page similar to the 2017 Consultation page <http://home.waterprotection.ca/source-protection-plan/consultation-2017/> containing pertinent

items for consultation and a feedback form mechanism to collect comments for review by Committee prior to inclusion in explanatory document summary – Appendixes section (per Regulation).


- Municipalities: Meeting with roads or public works staff by in-person or video calls to discuss proposed changes to salt application and storage threat policies.
- Media release: The consultation is in accordance with s.36 Order, highlight items, as well as review and comment opportunities. Distributed to media across Source Protection Region.
- Newspaper or other media paid advertising/notice
- Social Media Notice postings: Facebook, Twitter

Process for Updates – Assessment Report and Plan Revision Process under the *Clean Water Act*:



* Note: unless otherwise specified in Minister’s order

**DRINKING WATER
SOURCE PROTECTION**
Our Actions Matter



**NOTICE OF PUBLIC
CONSULTATION**

The public is invited to comment on proposed Section 36 updates to the local source protection plan, assessment report and explanatory document.

This public consultation period is 35 days in length, beginning on "this day to that day"

**[http://home.waterprotection.ca/
source-protection-plan/](http://home.waterprotection.ca/source-protection-plan/)**

Office: 519-470-3000
Email: mail@waterprotection.ca

Respectfully submitted,



Karen Gillan
Program Supervisor/Communications Planner
Drinking Water Source Protection

Ministry of the Environment, Conservation & Parks

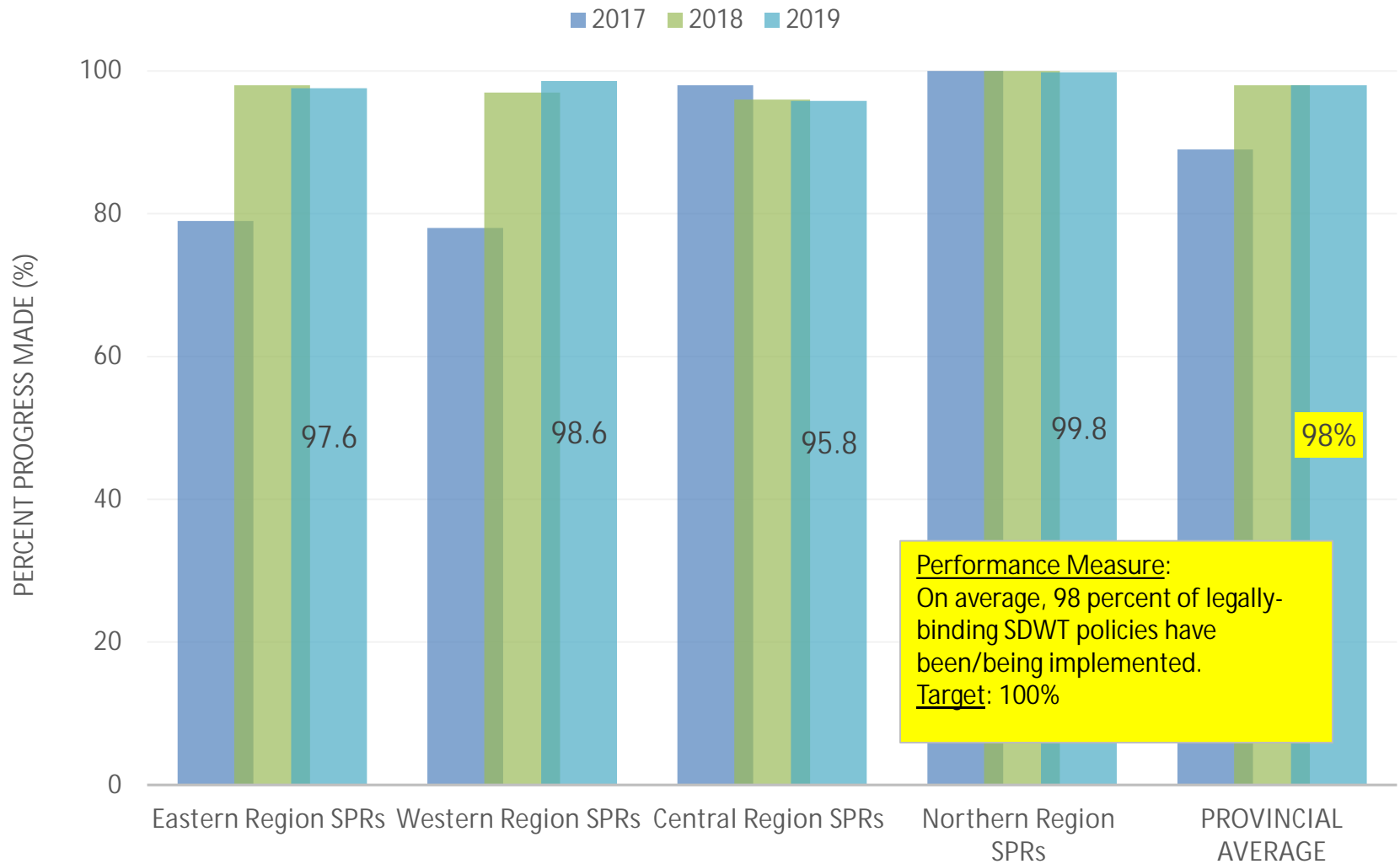
2019 Annual Progress Reporting Summary

Saugeen, Grey Sauble, Northern Bruce
Peninsula Source Protection Committee
Meeting

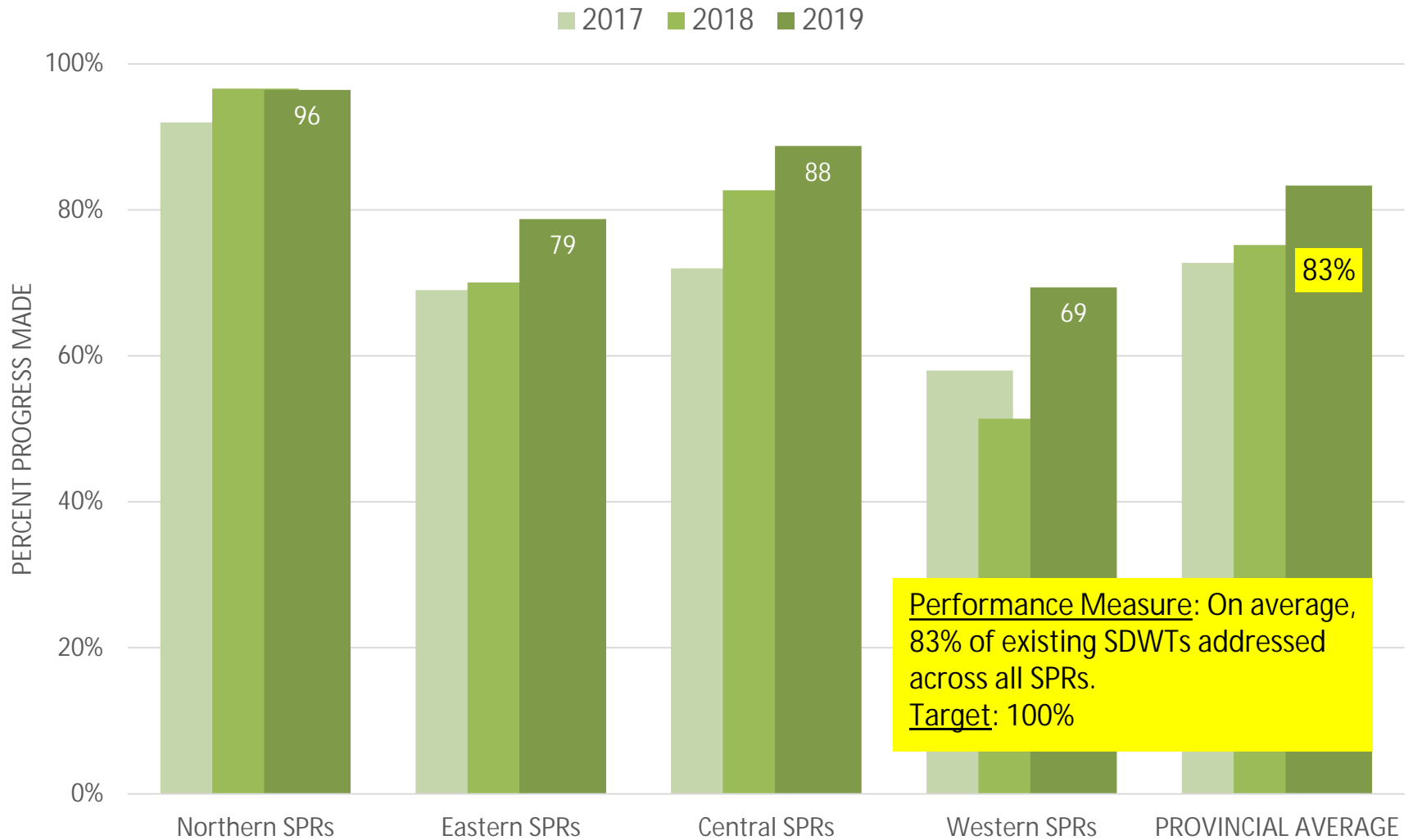
November 27, 2020

Section 1: Policy and Threat Implementation Highlights

2019 Annual Progress Reporting Highlights:
 Average Percentage of Legally-binding Significant Drinking Water Threat Policies
 Implemented/being Implemented by Provincial Source Protection Regions
 (SPRs)



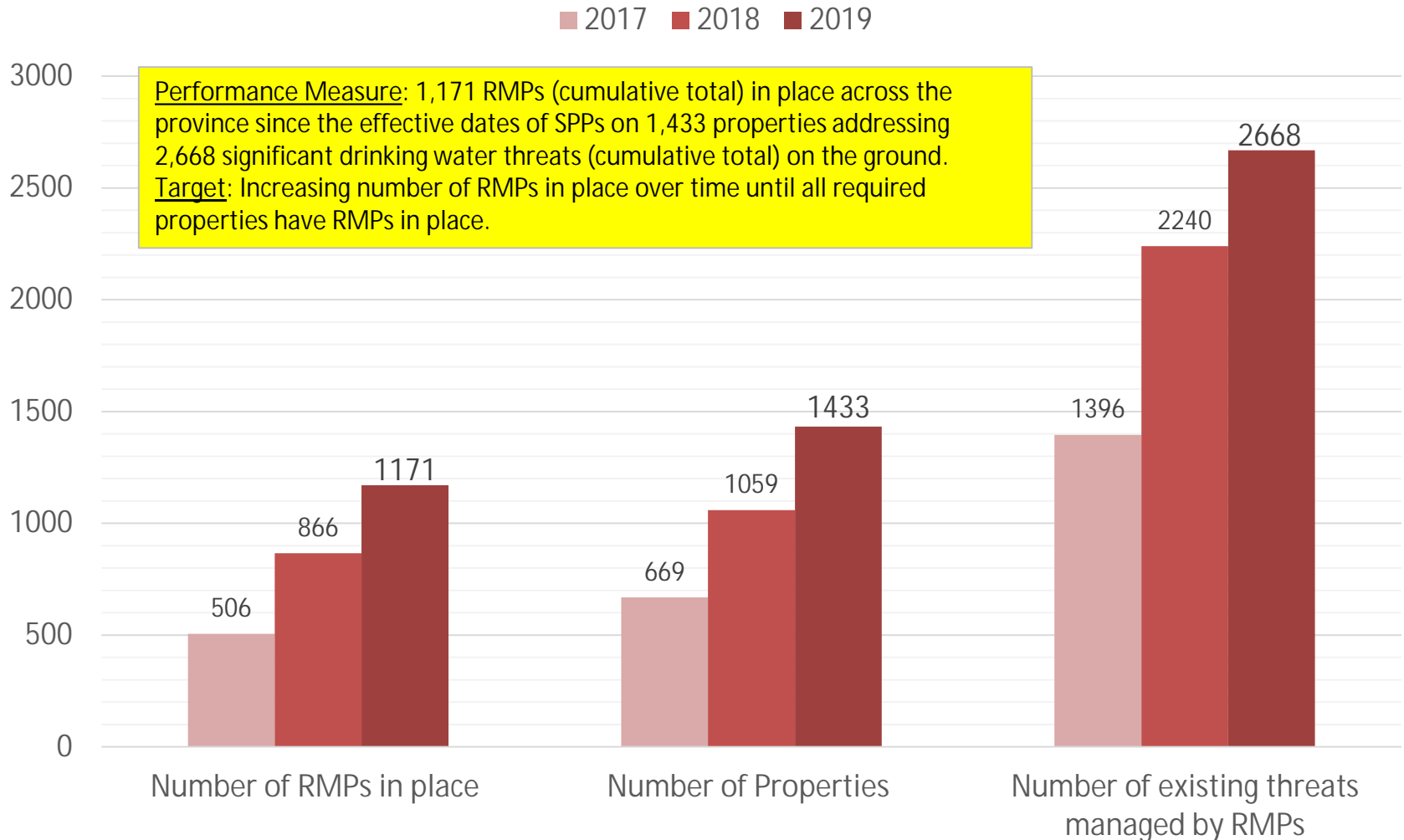
2019 Annual Reporting Highlights:
Addressing Existing Significant Drinking Water Threats (SDWT) by provincial Source
Protection Regions (SPR)



Section 2: Part IV Implementation Highlights

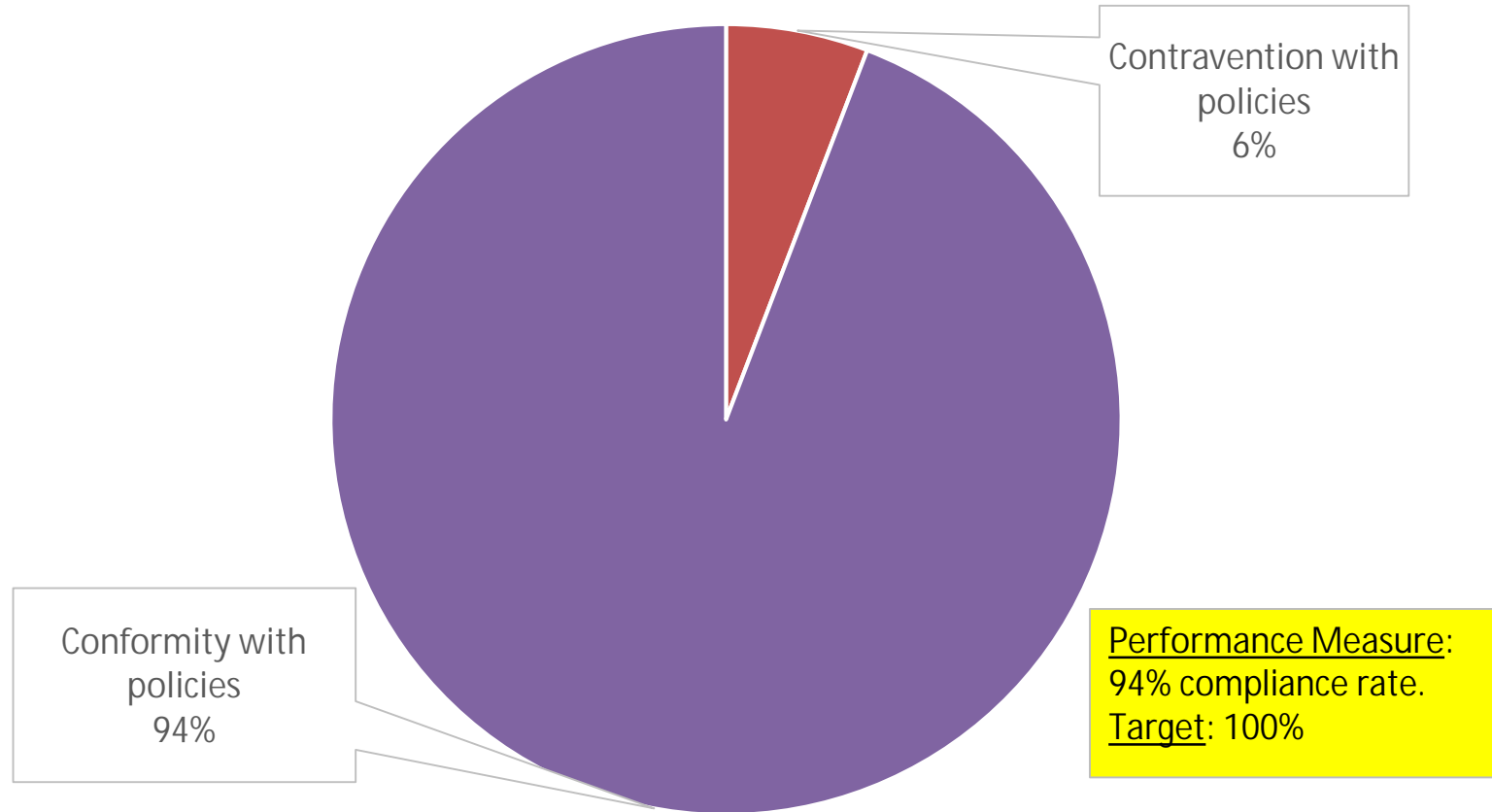
Part IV (Section 58 Risk Management Plans)

2019 Annual Progress Reporting Highlights:
Risk Management Plans (RMP) across Source Protection Regions



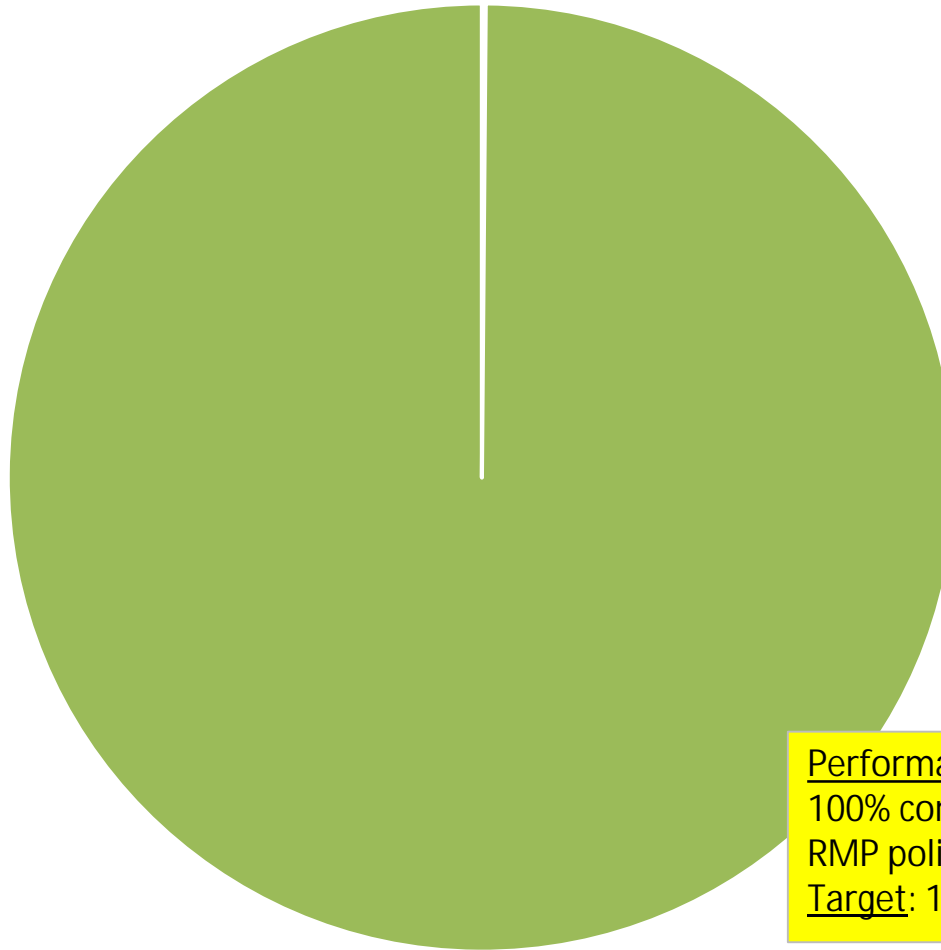
Part IV (Inspections)

2019 Annual Progress Reporting Highlights:
Sections 57 & 58 Inspection Results



Part IV (Inspections)

2019 Annual Progress Reporting Highlights:
Section 58 Inspection Results



Performance Measure:
100% compliance rate with
RMP policies.
Target: 100%

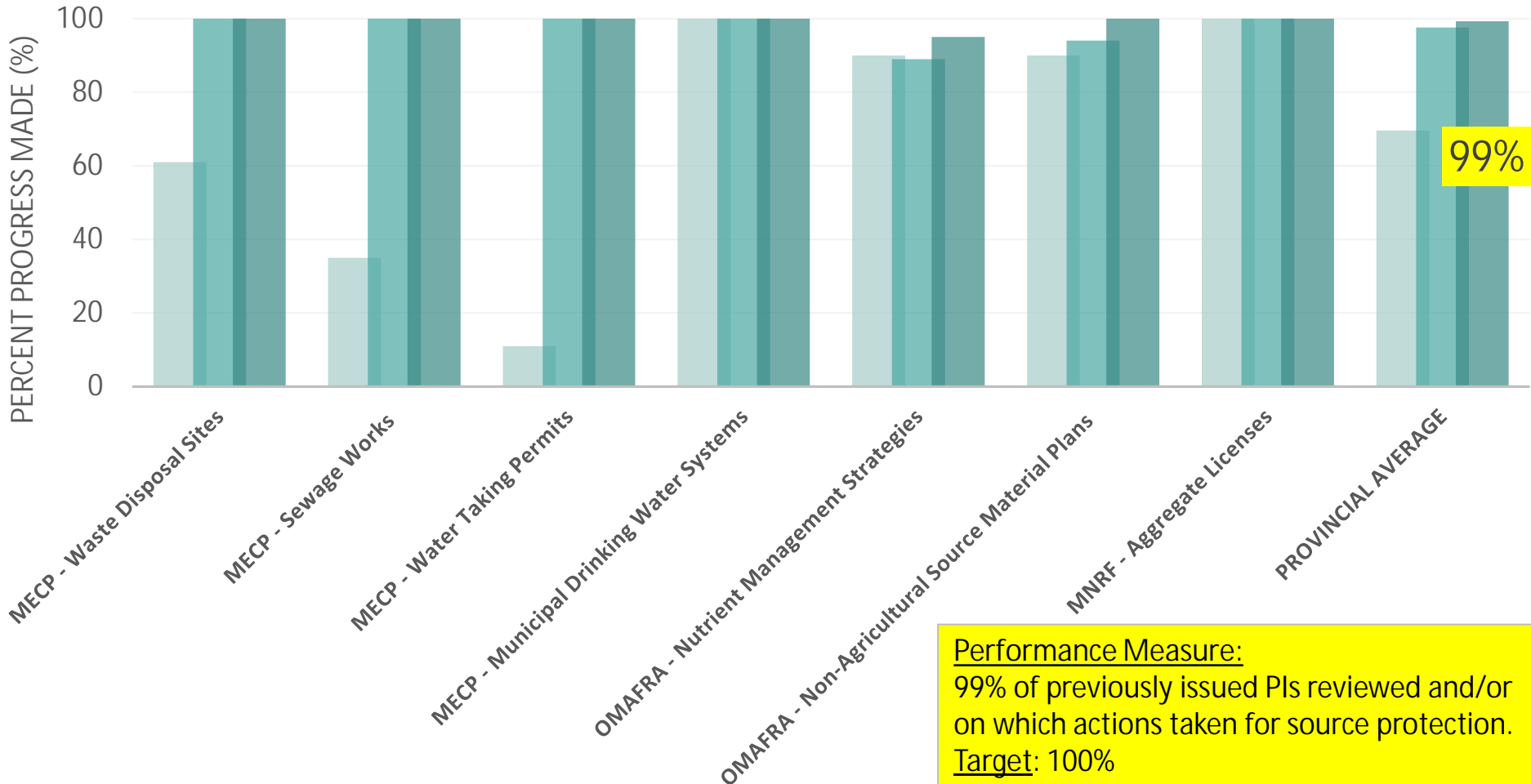
Section 3: Provincial Ministry Highlights

Prescribed Instrument Integration/Conformity

- All nine (9) Ministry program areas that issue prescribed instruments reported having the following processes in place:
 - Staff training on source protection;
 - Guidance documents to align with new program changes for source protection;
 - Mapping of prescribed instruments that are subject to policies;
 - Screening to review incoming applications for prescribed instruments where they are a significant drinking water threat;
 - Tracking prescribed instruments that are subject to source protection plan policies;
- Most program areas have additional processes in place related to:
 - Tools to support stakeholders during applications.
 - Protocol in place to review previously issued prescribed instruments

2019 Annual Reporting Highlights: Cumulative Percent Progress Made on previously issued Prescribed Instruments (PI) by Provincial Program Area

2017 2018 2019

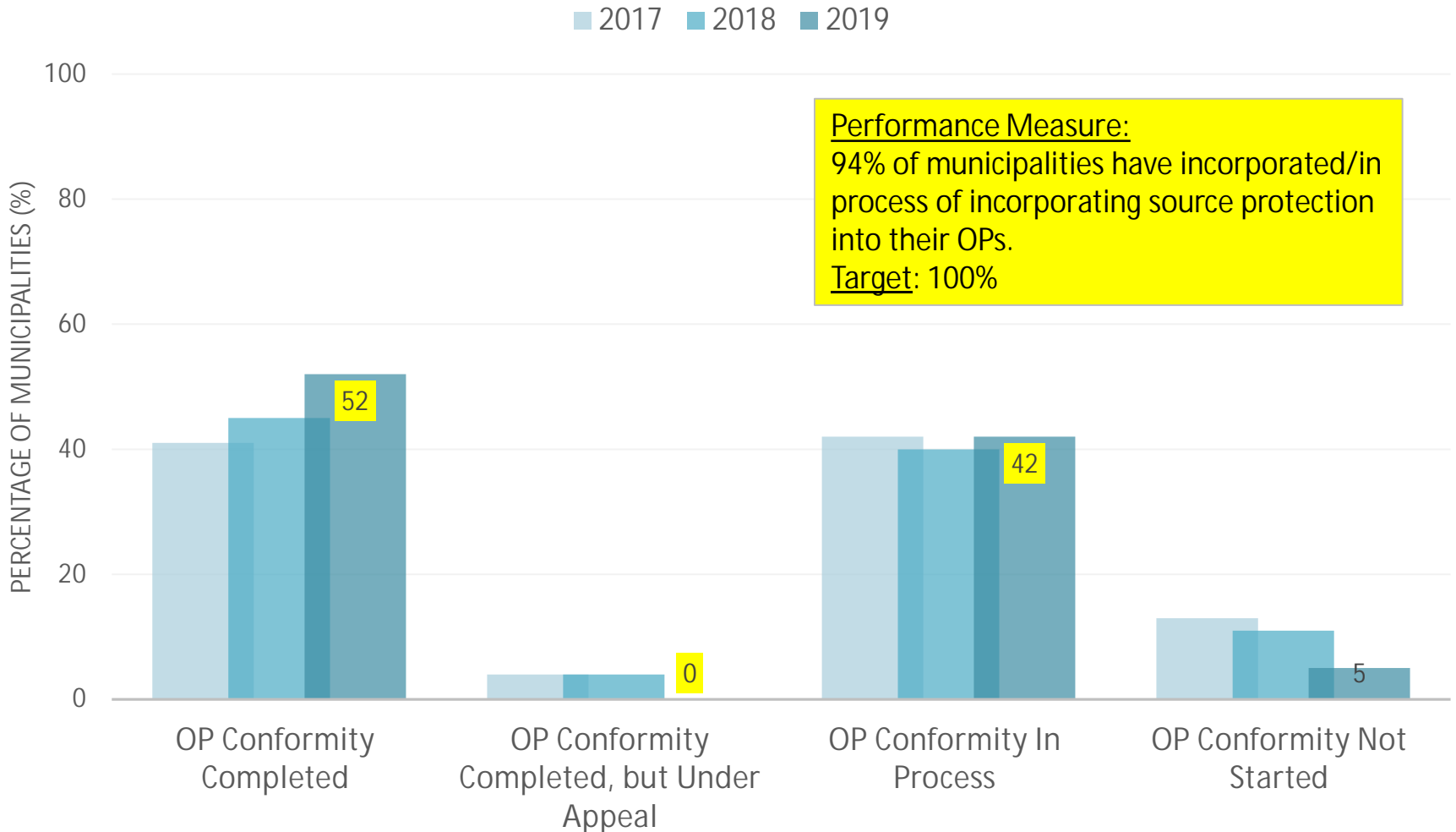


Performance Measure:
99% of previously issued PIs reviewed and/or on which actions taken for source protection.
Target: 100%

Section 4: Municipal & Source Protection Authority Highlights

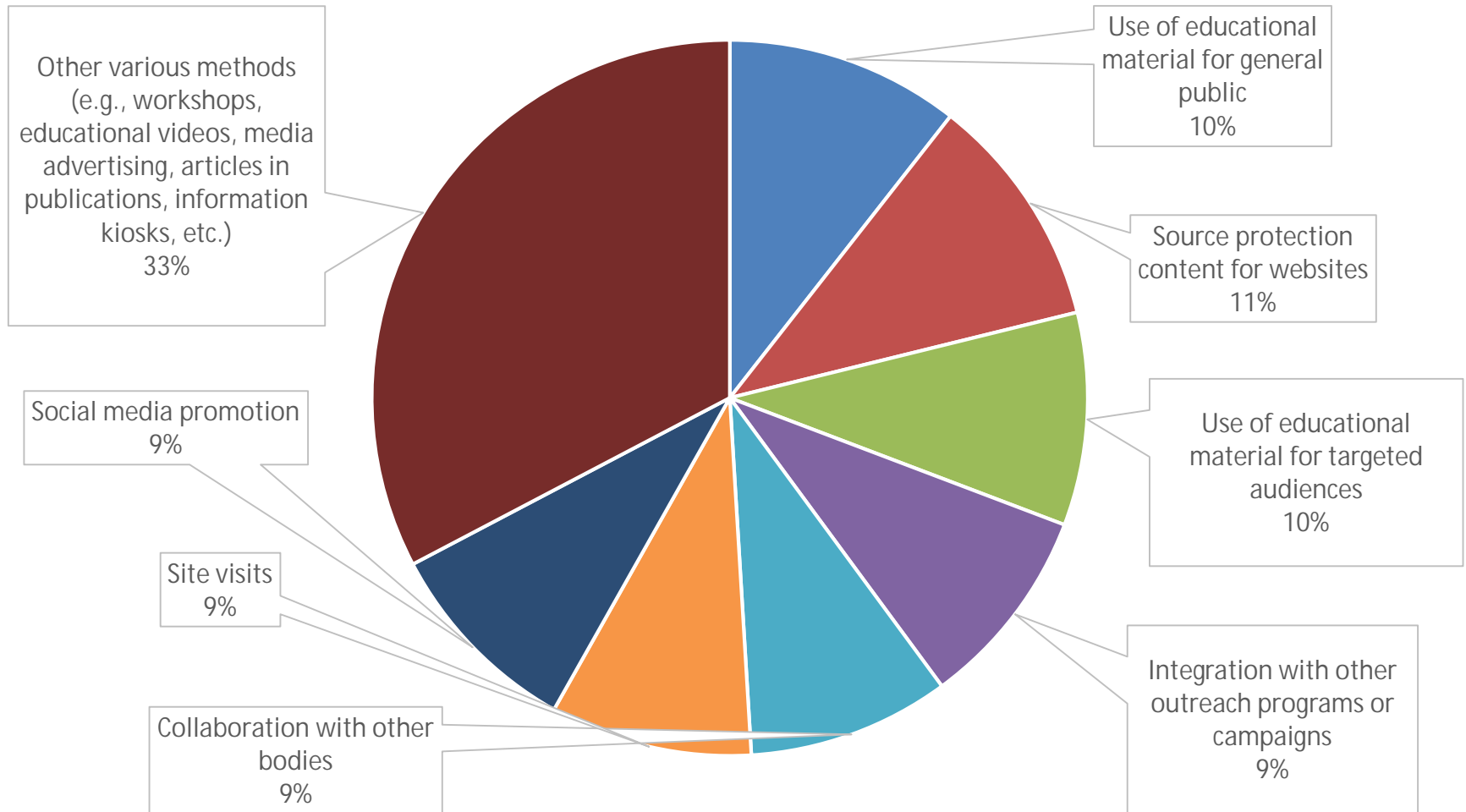
Land Use Planning

2019 Annual Progress Reporting Highlights:
Province-wide Official Plan (OP) Conformity for Source Protection



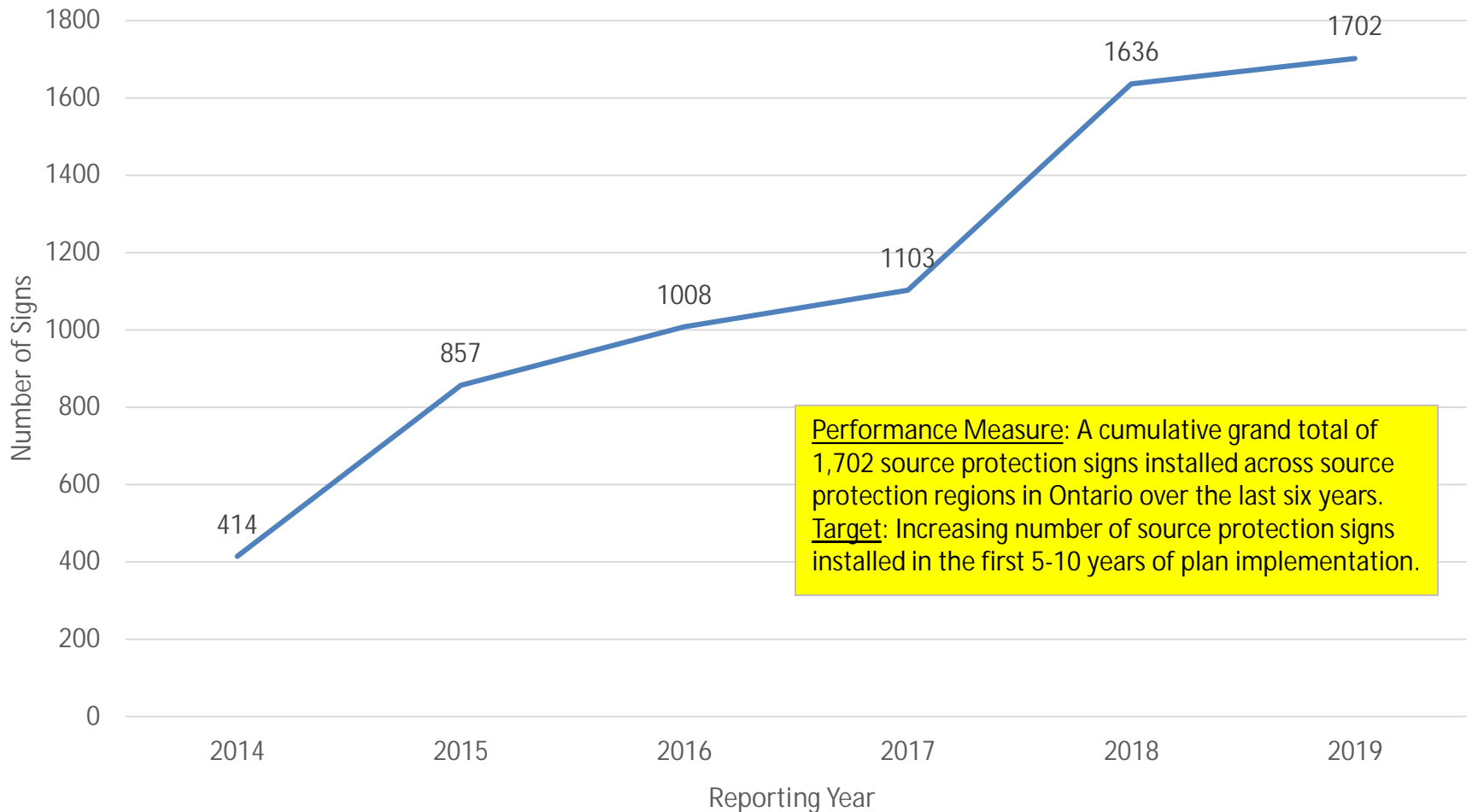
Education & Outreach

2019 Annual Progress Reporting Highlights:
Methods used to implement Education & Outreach Policies



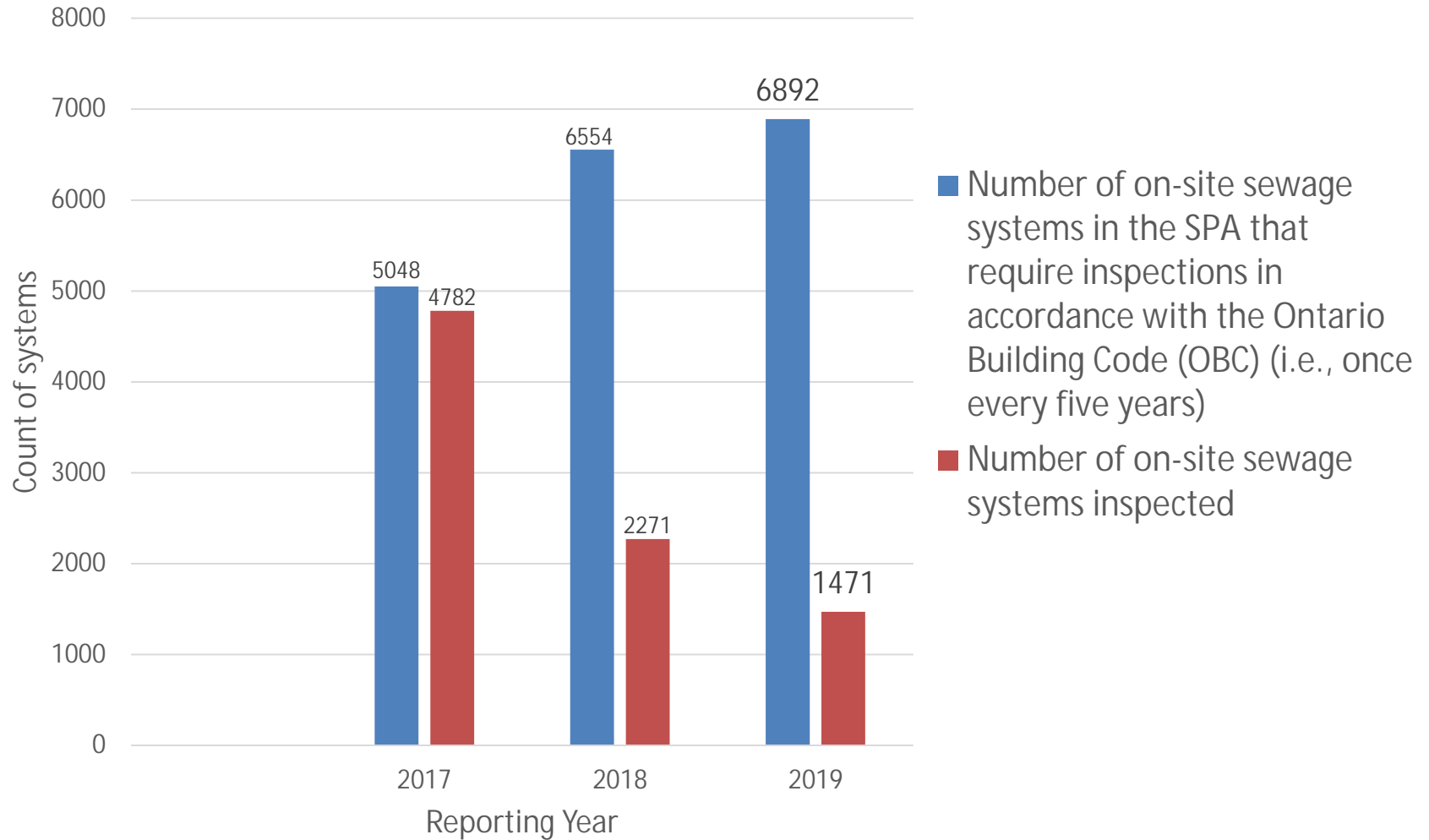
Signage

2019 Annual Progress Reporting Highlights:
Total Number of Source Water Signs Installed across Source Protection Regions per Reporting Year



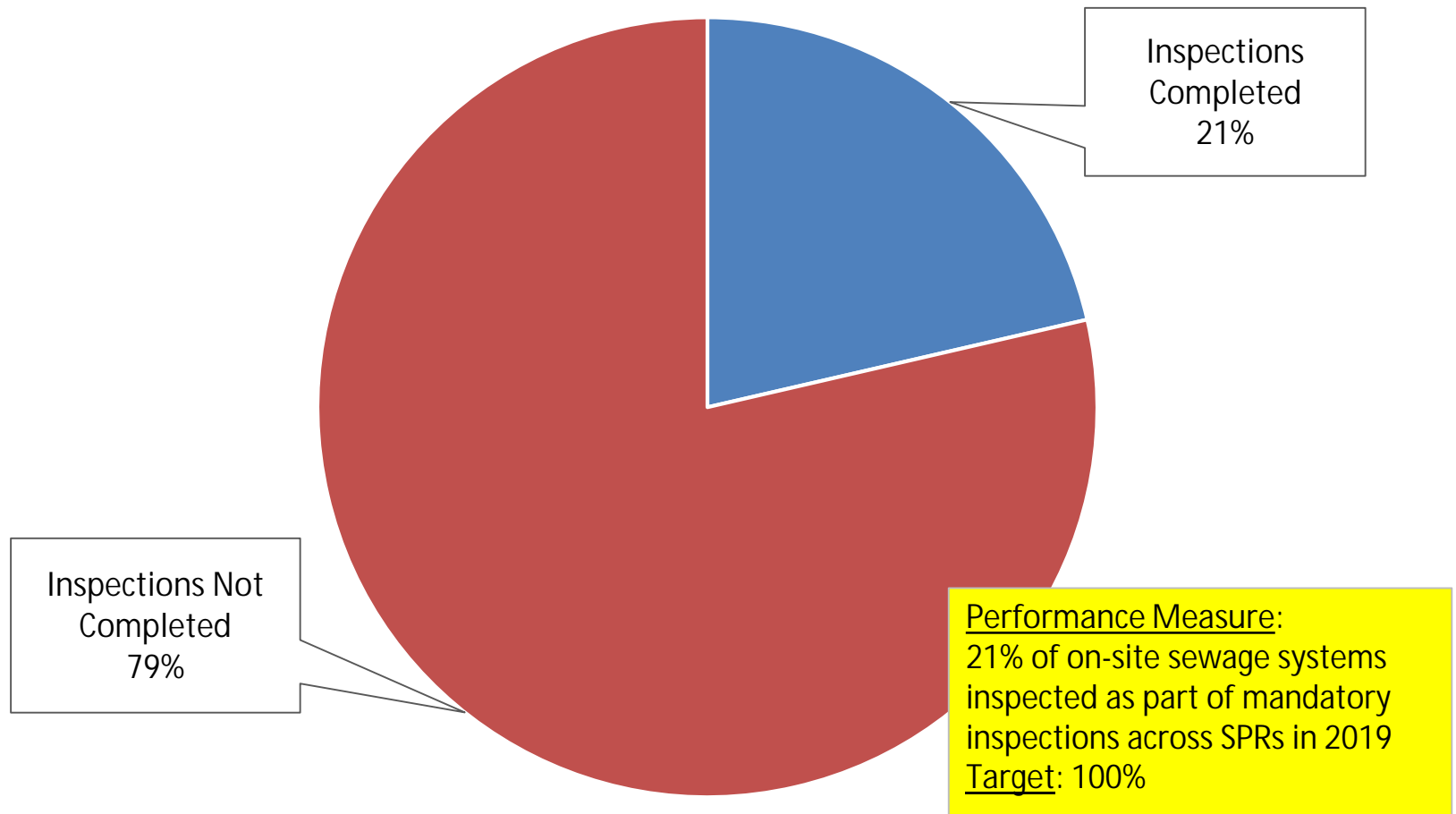
Septic Systems

2019 Annual Progress Reporting Highlights:
Septic System Inspections across Source Protection Region/Areas (SPR/A)



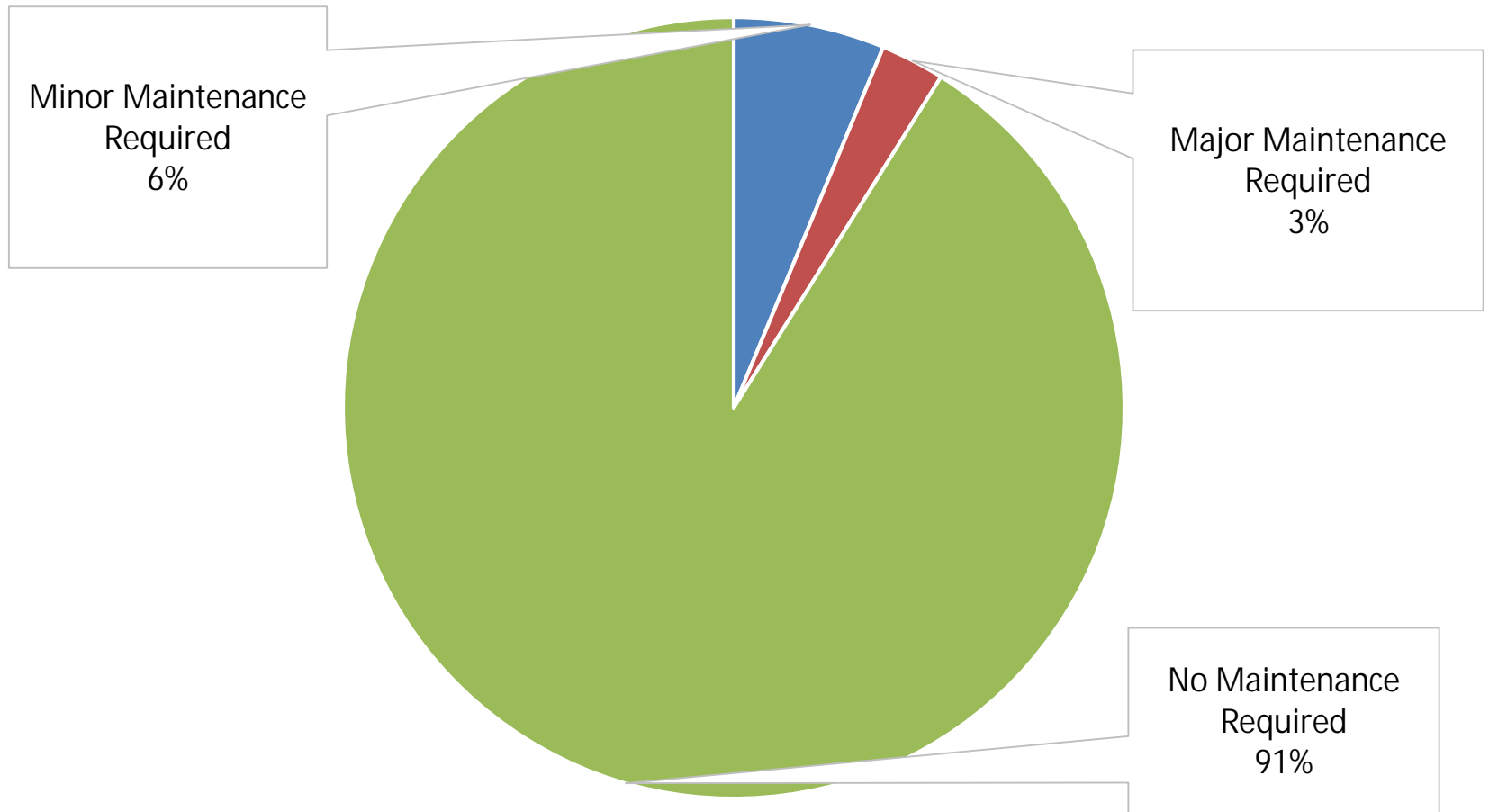
Septic Systems

2019 Annual Progress Reporting Highlights:
Province-wide Septic System Inspections Completed



Septic Systems

2019 Annual Progress Reporting Highlights:
Province-wide Septic System Inspection Results



Source Protection Positive Outcomes

- 82% of source protection authorities indicated that plan implementation is a contributing factor to achieving positive drinking water outcomes.
- Examples of positive drinking water outcomes that were shared by some SPAs include:
 - CTC: Long-Term Protection of Aquifer Recharge through the implementation of Low Impact Development.
 - Halton-Hamilton: Increased awareness about potential issues that can impact water quantity and quality in the context of capital projects and development applications.
 - Lake Erie – Catfish Creek: The Risk Management Official/Risk Management Inspector have noted a change in property owner behaviour during site inspections. People appear interested in protecting source water and are willing to change out chemicals for more environmentally-sensitive options.
 - North Bay-Mattawa: Awareness of factors that could contribute to blue green algae blooms.
 - Quinte: Raw water samples of Organic Nitrogen show results are improving.
 - SGSNBP: Results of the monitoring of nitrate have shown that levels have decreased and continue to fall below the threshold for an issues contributing area.

Achievement of Source Protection Plan Objectives

Performance Measure: 91% of Source Protection Committees (SPC) are progressing well / on target towards achieving objectives of the plan
Target: Increasing percentage over time

Progressing Well / On Target

ABMV, CTC, Essex, Halton-Hamilton, Lake Erie – Catfish Creek, Lake Erie – Kettle Creek, Lake Erie – Grand River, Lakehead, Mattagami, Mississippi-Rideau, Niagara Peninsula, North Bay-Mattawa, Quinte, Raisin-South Nation, Sudbury, SSM, Saugeen-Grey Sauble-Northern Bruce Peninsula, Thames-Sydenham and Trent Conservation Coalition.

Satisfactory

Cataraqui, South Georgian Bay Lake Simcoe

REPORT #8a

TO: SOURCE PROTECTION COMMITTEE

DATE: NOVEMBER 27, 2020

SUBJECT: LIQUID HYDROCARBON PIPELINE THREAT

Purpose:

To provide the Source Protection Committee (SPC) with information regarding the Threats approach risk assessment, policy options and policy approaches to ensure the source protection plan addresses threats to drinking water as it relates to the addition of *'the establishment and operation of a liquid hydrocarbon pipeline'* to the list of prescribed drinking water threat activities in 2018.

Background:

During the first round of source protection planning, pipelines were not included as a prescribed drinking water threat; however, five other source protection committees included pipelines in their plans as local threats. The *'establishment and operation of a liquid hydrocarbon pipeline'* was added as a Prescribed Drinking Water Threat through an amendment made to the General Regulation (O.Reg. 287/07) under the *Clean Water Act* on July 1, 2018 to consistently require the assessment of the risk that pipelines pose to sources of drinking water across all source protection areas.

This new prescribed threat captures pipelines designated for transmitting or distributing liquid hydrocarbons to terminals and distribution centres. It does not capture pipelines that move liquefied natural gas or liquid petroleum gas. It also does not capture pipelines operated by the Ministry of Natural Resources and Forestry (MNRF) as defined in the *Oil, Gas and Salt Resources Act*, or those that operate within a property such as a refinery. Pipelines that convey liquid fuel within a single property would fall under the prescribed threat *'handling and storage of fuel.'*

This amended regulation also provides an exemption from including policies if the prescribed threat activity does not exist and there is no likelihood it could be located there in the future. As it relates to the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region (SPR), this threat activity does not currently exist, and based on the location of the Region, there is no likelihood that a pipeline could be located here in the future. As the Region is surrounded by Lake Huron/Georgian Bay, there is no likelihood of future hydrocarbon pipelines being installed in this Region. A further review of future hydrocarbon pipeline projects demonstrates no projects planned in the Region. Furthermore, current environmental and socio-economic concerns associated with the development of new hydrocarbon pipelines would significantly limit the potential for any new pipeline projects to be considered within the Region.

The following risk assessment satisfies *Proposed Update 2* from the Workplan for Comprehensive Review and Update of the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Plan per *Clean Water Act* (2006) - Section 36 (approved by Ministry of the Environment, Conservation and Parks - January 2020).

Threat Circumstance Risk Assessment:

Staff conducted a risk assessment using the Threats Approach (i.e. vulnerability scores) and the online Source Protection Portal (<https://swpip.ca/>) to determine the areas and circumstances under which the '*establishment and operation of a liquid hydrocarbon pipeline*' may be a potential significant, moderate or low threat. The Threats Approach is based on the quantitative risk score estimation for an activity that is or would be a drinking water threat in a specific vulnerable area. The following circumstances were assessed using this approach:

- The conveyance of a liquid hydrocarbon by way of a pipeline within the meaning of Ontario Regulation 210/01 under the *Technical Standards and Safety Act*, or that is subject to the *National Energy Board Act*, where the pipeline is **above ground or above a water body**.
- The conveyance of a liquid hydrocarbon by way of a pipeline within the meaning of the Ontario Regulation 210/01 under the *Technical Standards and Safety Act*, or that is subject to the *National Energy Board Act*, where the pipeline is **below ground and is not crossing underneath a water body**.
- The conveyance of a liquid hydrocarbon by way of a pipeline within the meaning of the Ontario Regulation 210/01 under the *Technical Standards and Safety Act*, or that is subject to the *National Energy Board Act*, where the pipeline is **below ground and is crossing within or underneath a water body**.

The table below indicates the number of potential significant, moderate and low threat circumstances posed by hydrocarbon pipelines if the activity were to be present (existing or future). This information will be used to update Chapter 4 of the Assessment Report and its appendices. Furthermore, areas of risks of low, moderate and significant are required to be listed in the assessment report and identified (mapped) if significant.

Table 1 - The circumstances for the *establishment and operation of a liquid hydrocarbon pipeline* considered to be significant, moderate and low drinking water threat for intakes and wellhead protection areas in this Region

Ruhl Lake – IPZ-1

Threat Sub-Category	Risk	Vulnerable Area / Score	Associated Chemicals
Pipelines above ground	Significant	1 (10)	Petroleum Hydrocarbons F1 (nC6-nC10), Petroleum Hydrocarbons F2 (>nC10-nC16), Petroleum Hydrocarbons F3 (>nC16-nC34), Petroleum Hydrocarbons F4 (>nC34), BTEX compounds
Pipeline is within or under a water body	Significant	1 (10)	Petroleum Hydrocarbons F1 (nC6-nC10), Petroleum Hydrocarbons F2 (>nC10-nC16), Petroleum Hydrocarbons F3 (>nC16-nC34), Petroleum Hydrocarbons F4 (>nC34), BTEX compounds

All WHPA – A (all score 10) Also WHPA B with a score of 10

Winburk, Amabel-Sauble - PW 1&2, Chatsworth, Chepstow, Durham 1B, Hanover 2, Kimberley 1&2, Lake Rosalind 1&3, Markdale Isla, Markdale 3&4, Mildmay 1&2, Neustadt 1, Neustadt 2&3, Oliphant – Fiddlehead 1&2, Pottawatomi 2, Tara 2&3, Tara 4, Teeswater 3, Walkerton 7&9

Threat Sub-Category	Risk	Vulnerable Area / Score	Associated Chemicals
Pipeline is above ground	Significant	A (10), B (10)	Petroleum Hydrocarbons F1 (nC6-nC10), BTEX compounds
Pipeline is within or under a water body.	Significant	A (10), B (10)	Petroleum Hydrocarbons F1 (nC6-nC10), Petroleum Hydrocarbons F2 (>nC10-nC16), Petroleum Hydrocarbons F3 (>nC16-nC34), Petroleum Hydrocarbons F4 (>nC34), BTEX compounds
Pipeline is below ground	Significant	A (10), B (10)	Petroleum Hydrocarbons F1 (nC6-nC10), Petroleum Hydrocarbons F2 (>nC10-nC16), Petroleum Hydrocarbons F3 (>nC16-nC34), Petroleum Hydrocarbons F4 (>nC34), BTEX compounds

Durham 1B – WHPA-E with a score of 9

Threat Sub-Category	Risk	Vulnerable Area / Score	Associated Chemicals
Pipeline is above ground	Significant	E (9)	BTEX compounds
Pipeline is within or under a water body	Significant	E (9)	BTEX compounds

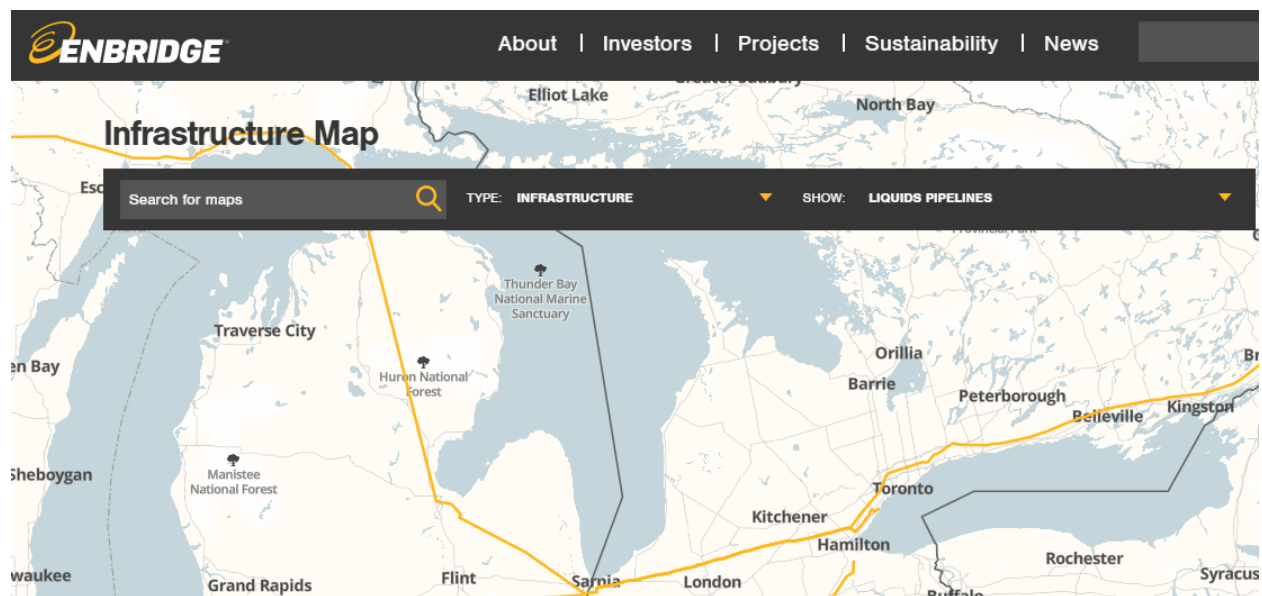
The following source protection areas were also assessed as moderate and low threats:

- IPZ-2 with vulnerability score of 8 are moderate – Ruhl Lake
- IPZ-1 score of 7,8,9 – Moderate
- IPZ-1 score of 5, 6 – Low
- WHPA-A, B, C with vulnerability score of 8 – Moderate

Location of Existing Liquid Hydrocarbon Pipelines:

The National Energy Board, now known as the Canada Energy Regulator (CER), maintains a website with the location of pipelines as well as reports of known spills or other incidents (<http://www.cer-rec.gc.ca/sftnvrnmnt/ndstrprfrmnc/dshbrd/mp/index-eng.html>). The interactive mapping tool below can be found at <https://memberprojects.aboutpipelines.com/> and shows the location of pipelines.

Figure 1 – location of liquid hydrocarbon pipelines operated by Enbridge, accessed July 16, 2020 from <https://www.enbridge.com/map#map:infrastructure,crudeInfrastructure>



Enbridge also maintains a website with an interactive map showing the location of its liquid hydrocarbon pipelines.

Recommended Option- No Policy:

Regulation amendments in 2018 (Ontario Regulation 206/18) provides an exemption from including policies when there are no existing pipelines nor any reasonable prospect that pipelines would be established in the future. As there are currently no hydrocarbon pipelines in the Region nor any likely prospect in the future, plan policies are not required, even if they have been

assessed as a significant drinking water threat. In this case, the Explanatory Document must include:

- An explanation of the source protection committee's reasons for concluding that there is no reasonable prospect the activity will ever be engaged in in that area; and,
- A description of the process and summary of information used to reach the conclusion (i.e., summary of information; land use planning documents, that were relied on to reach the conclusion)

RECOMMENDATION:

THAT Liquid Hydrocarbon Pipeline Threat Report 8a be accepted for information and discussion purposes, and further;

THAT the appropriate changes will be made to the assessment reports, with a reasonable rationale provided in the explanatory document as to why significant threat policies associated with hydrocarbon pipelines will not be included.

Respectfully submitted,



Carl Seider
Project Manager
Drinking Water Source Protection

REPORT #8b

TO: SOURCE PROTECTION COMMITTEE

DATE: NOVEMBER 27, 2020

SUBJECT: PROPOSED SOURCE PROTECTION PLAN AMENDMENTS - EAST LINTON EVENTS-BASED AREA

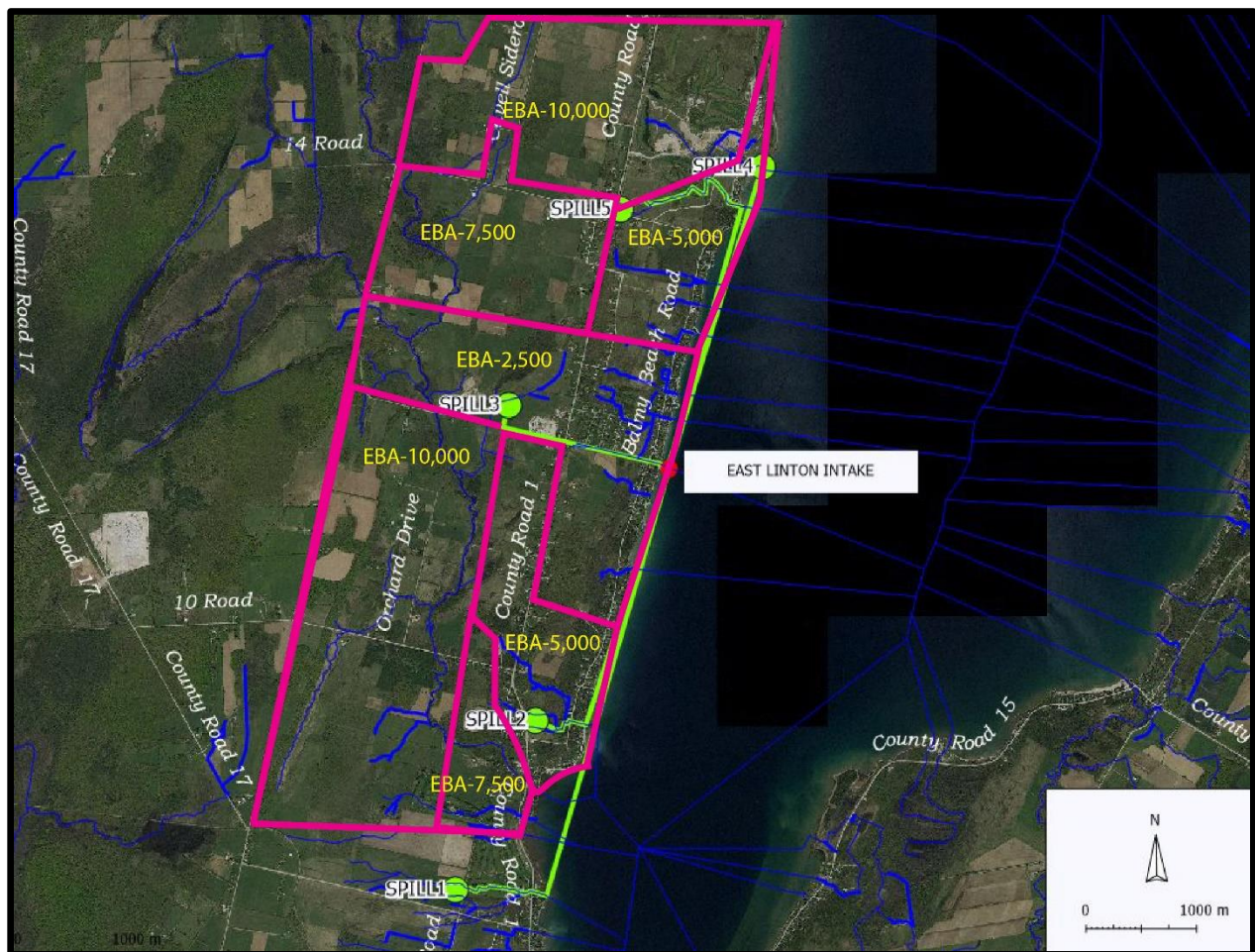
The Source Protection Committee (SPC) requested a review of the Events-Based Area (EBA) desktop model analysis for the Owen Sound and East Linton intakes. As the Ontario Drinking Water Standard was recently changed from 0.005 mg/L to 0.001 mg/L, the modeled impacts to the East Linton intake would now be designated a Significant Drinking Water Threat.

A total of 25 spill locations were modeled, resulting in a range in minimum volumes that would cause an exceedance at the East Linton intake from approximately 500 to 13,000 litres, depending on the location of the spill. The calculations previously delineated the East Linton EBA following the same methodology as other EBAs, with the exception of using the updated Ontario Drinking Water Quality Standard for benzene of 0.001 mg/L as the exceedance threshold to determine if a given spill volume would be considered a significant drinking water threat. Below is a summary table of the modeled spills completed by staff.

Spill Number	Spill Size (L)	Travel Time to Lake rounded (minutes)	Spill In-Lake Distance (m)	Minimum Volume to cause Exceedance at Intake (L)
SPILL- 1	5000	14	4021	10400
SPILL- 2	5000	8	2418	5490
SPILL- 3	5000	26	130	410
SPILL- 4	5000	0	2853	4350
SPILL- 5	5000	24	2454	7500
SPILL- 6	5000	50	2145	8930
SPILL- 7	5000	56	130	580
SPILL- 8	5000	44	130	510
SPILL- 9	5000	38	2105	7710
SPILL- 10	5000	26	4362	13720
SPILL- 11	5000	14	451	1170
SPILL- 12	5000	10	682	1620
SPILL- 13	5000	8	1239	2810
SPILL- 14	5000	6	971	2090
SPILL- 15	5000	12	2105	5210

SPILL- 16	5000	6	3635	7820
SPILL- 17	5000	70	2145	10640
SPILL- 18	5000	44	2145	8400
SPILL- 19	5000	36	3635	13000
SPILL- 20	5000	65	2105	10010
SPILL- 21	5000	32	3274	11140
SPILL- 22	5000	22	3490	10300
SPILL- 23	5000	22	2418	7140
SPILL- 24	5000	16	4290	11510
SPILL- 25	5000	22	2853	8420

With these modeled results, a detailed outline for a possible EBA delineation was completed for Source Protection Committee (SPC) review. (see map below)



Spill locations that were modeled in areas overlapping with the Owen Sound EBA (noted as Spill 10 & 19 in the table above) with minimum volumes of 13,000 L, closely matched the current exceedance threshold of 15,000 L for the Owen Sound drinking water intake. Based on Ministry direction, the SPC can determine whether to maintain separate EBA delineations for East Linton and Owen Sound with different exceedance thresholds or revise values for Owen Sound based on the updated model results in these overlapping areas. At this time, it is our recommendation to keep the two areas separate, so as not to create confusion between them.

Proposed Change to Policy:

15-05 - Risk Management Plan for Fuel near Great Lakes Intakes

Activity Status	Existing activity; Future activity
Policy Tool/ Approach	s.58 Risk Management Plan
Policy Text	<p>The policy applies where the storage of fuel is a significant drinking water threat (existing and future activity) within the following areas:</p> <p style="padding-left: 40px;">8. for Events-based Area for the East Linton Drinking Water System (as shown on Map) where fuel is stored in a quantity of 2,500L or more (EBA-2500) 5,000L or more (EBA-5000), 7,500L or more (EBA-7,500) and 10,000L or more (EBA-10000)</p> <p>Establishment of a Risk Management Plan is required. The storage of fuel may only occur in accordance with an approved Risk Management Plan. Therefore, the storage of fuel is designated for the purposes of s.58 of the <i>Clean Water Act</i>.</p> <p>As a minimum, the Risk Management Plan shall address: 1) product handling; 2) product storage; 3) record keeping and documentation, including any inspection reports; 4) disposal methods; 5) spills response plan; and 6) containment measures. The Risk Management Plan shall be renewed every five years or at the discretion of the Risk Management Official.</p>

RECOMMENDATION: THAT the Source Protection Committee for the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region approves the draft policies relating to the proposed amendments to the Source Protection Plan noted in this Report pending the implementation of any changes agreed to by the Source Protection Committee during its meeting on November 27, 2020; and further,

THAT Staff be directed to continue with consultation activities as required by O.Reg. 287/07.

Respectfully submitted,



Carl Seider, Project Manager, Drinking Water Source Protection

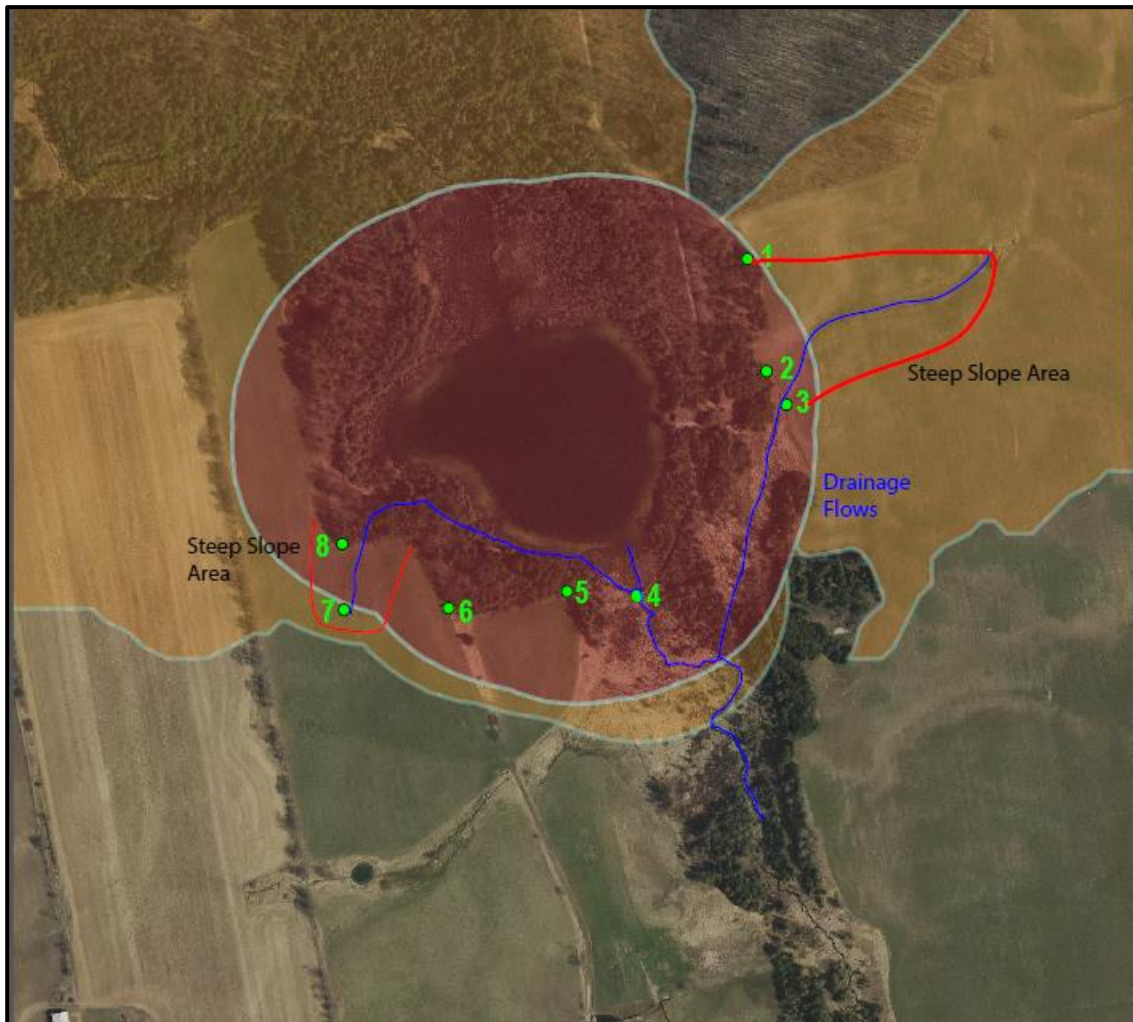
REPORT #8c

TO: SOURCE PROTECTION COMMITTEE

DATE: NOVEMBER 27, 2020

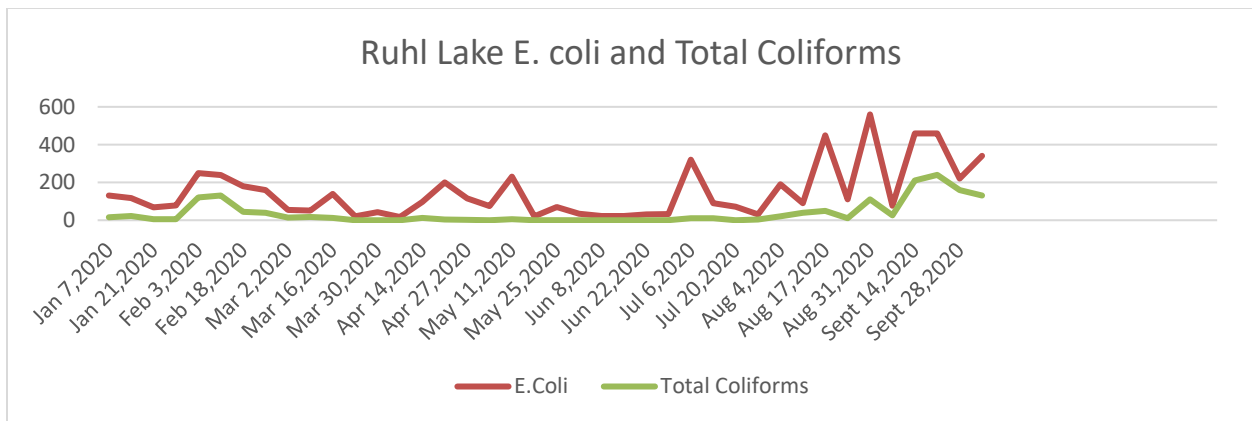
SUBJECT: RUHL LAKE INTAKE E.COLI THREATS

On October 11, 2019, Staff conducted an initial site visit to Ruhl Lake to determine if there were any observable transport pathways to Ruhl Lake that may not have been noted as part of the initial assessment report work. Below is a map of Ruhl Lake with noted points where steeper slopes were observed with the potential for increased surface drainage flows towards Ruhl Lake. In these areas, there were no observed transport pathways (e.g. tile drain outlets, ditches) or drainage flow with possible connections to the lake. Also, during the site visit, many waterfowl were observed on the lake, which could be one of the potential sources for the increased levels of fecal coliform and E. coli in the lake.



As a follow-up to the Source Protection Committee (SPC) meeting on July 24, 2020, Staff investigated the Trent Source Protection Plan (Plan) policy wording, since its Plan had identified waterfowl as a Local Threat. The policies targeted landscaped areas adjacent to watercourses, the maintenance of open areas of mown grass for recreational activities, and the use of signs to prohibit the feeding of waterfowl. In review of these policies, however, it appears that this approach would not be applicable to Ruhl Lake, as the surrounding areas are either forested or agricultural lands.

Staff also contacted the Chief Operator for the Hanover drinking water system and were able to get a copy of the latest raw water sample results for E.coli and Total Coliforms at Ruhl Lake. Below is a summary graph of these results. Overall, these results demonstrate some notable seasonal fluctuations in water quality, with increasing E. coli and Total Coliform counts in the late summer and fall months. There have also been increased observations of geese and other waterfowl on the Lake over the past couple of months, which are likely a significant contributing factor to these increased levels.



Furthermore, Staff pursued the possibility of conducting lab analysis of E.coli strains through private laboratory services in Ontario. In discussions with a few labs, it was determined that they would not be able to distinguish between the source of E.coli coming from waterfowl (e.g. geese) versus E.coli from cattle or other mammals, and that we would need to have samples sent to U.S. labs who can do specialized DNA fingerprinting analysis.

RECOMMENDATION: THAT: The Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee receives Report 8c for information and that Staff continue to monitor the effectiveness of policies associated with Ruhl Lake for consideration of future amendments.

Respectfully submitted,

Carl Seider
 Project Manager
 Drinking Water Source Protection

REPORT #8d

TO: SOURCE PROTECTION COMMITTEE

DATE: NOVEMBER 27, 2020

SUBJECT: SALT APPLICATION & STORAGE THREAT POLICIES

In support of the Report provided at the July 24, 2020 Source Protection Committee (SPC) meeting regarding proposed Source Protection Plan (SPP) amendments, Staff is seeking SPC direction on the following policies. It should be noted, however, that these proposed policy changes are for the purpose of SPC discussions that the thresholds presented in the policies are based on the draft Director’s Technical Rule amendments that are subject to change pending Ministry approval.

Policy 12-01: Salt Application Threat -Risk Management Plan

Activity Status	Existing activity; Future activity
Policy Tool/ Approach	s.58 Risk Management Plan / Implementing Body- RMO
Policy Text	<p>Establishment of a Risk Management Plan is required. The application of road salt may only occur in accordance with an approved Risk Management Plan and is therefore designated for the purposes of s.58 of the <i>Clean Water Act</i>, where the following applies:</p> <ul style="list-style-type: none"> a) Where the activity is or would be a significant drinking water threat; b) Salt is or could be applied to the property; c) The salt application area is equal to or greater than 200 square metres or 8 parking spots; and d) The property is used for any land uses except residential consisting of four units or fewer. <p>As a minimum, the Risk Management Plan shall:</p> <ul style="list-style-type: none"> a. follow best management practices consistent with those used across Canada b. employ the latest winter maintenance technologies c. identify actions to improve practices in the general use of road salts. <p>The Risk Management Plan shall be renewed every five years or at the discretion of the Risk Management Official.</p> <p>Notwithstanding the above, a Risk Management Plan will also be required for any municipal properties where the activity is or would be a significant drinking water threat.</p>

Policy 12-02: Salt Management Plan

Activity Status	Existing activity; Future activity
Policy Tool/ Approach	Specify Action / Implementing Body- Municipality
Policy Text	Where a Chloride or Sodium threats would be significant, the municipality shall review and, if necessary, revise or issue new Salt Management Plans for the application of salt on roadways in all Wellhead Protection Areas. 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.

Policy 12-03: Salt Management Plan – Ministry of Transportation Roads

Activity Status	Existing activity; Future activity
Policy Tool/ Approach	Specify Action / Implementing Body – MTO
Policy Text	To ensure any existing or new application of road salt, where road salt application is or would be a significant drinking water threat, ceases to be or never becomes a significant drinking water threat, the Ministry of Transportation should review and, if necessary, revise or issue new Salt Management Plans for the application of salt on roadways in all Wellhead Protection Areas. The Salt Management Plan should include, as a minimum, measures to ensure application rate, timing and location 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.

Policy 12-04: Salt Application - Education & Outreach

Activity Status	Existing activity; Future activity
Policy Tool/ Approach	Education & Outreach / Implementing Body - Municipality / Public Health Unit
Policy Text	To ensure any existing or new application of road salt, ceases to be or never becomes a significant drinking water threat, where this activity is or would be a significant drinking water threat, the municipality and / or the Public Health Unit shall develop and implement an education initiative addressing the application of road salt. The education program shall encourage the implementation of best management practices that form the core of the Smart About Salt or similar accreditation program to reduce the impact of winter de-icing activities.

REMOVE- Policy 13-01: The Handling and Storage of Road Salt (Prohibition)

Activity Status	Existing activity; Future activity
Policy Tool/ Approach	s.57 Prohibition / Implementing Body - RMO
Policy Text	<p>The policy applies in all vulnerable areas where the handling and storage of road salt is or would be a significant drinking water threat (existing activity or future activity).</p> <p>The handling and storage of road salt is prohibited. Therefore, the handling and storage of road salt is designated for the purposes of s.57 of the <i>Clean Water Act</i>.</p> <p>For clarity, the prohibition applies where: a) the quantity of road salt is at least 500 tonnes, but not more than 5,000 tonnes, and the road salt is stored in a manner that may result in its exposure to precipitation or runoff from precipitation or snow melt; or b) the quantity of road salt is more than 5,000 tonnes, and the road salt is stored in a manner that may result in its exposure to precipitation or runoff from precipitation or snow melt.</p> <p>Any road salt stored in a manner as described in clause (a) or (b) above as of the effective date of the Source Protection Plan shall be removed within 180 days of the effective date of the Source Protection Plan.</p>

Policy 13-01: The Handling and Storage of Road Salt (Risk Management Plan)

Activity Status	Existing activity; Future activity
Policy Tool/ Approach	s.58 Risk Management Plan / Implementing Body - RMO
Policy Text	<p>Establishment of a Risk Management Plan is required. The handling and storage of road salt may only occur in accordance with an approved Risk Management Plan and is therefore designated for the purposes of s.58 of the <i>Clean Water Act</i>.</p> <p>For clarity, a Risk Management Plan is required where storage is or would be considered a significant drinking water threat as follows: (1) ≥ 10 kg for IPZs scored 10 and ≥ 20 kg for IPZs scored 9 and WHPAs scored 10 for uncovered storages; (2) ≥ 100 kg for covered storage; (3) designed facility / structure cannot be a significant risk.</p> <p>The risk management plan, at a minimum, will include terms and conditions that mirror a salt management plan, and comply with contemporary standards to ensure the handling and storage of road salt ceases to be a significant drinking water threat.</p>

RECOMMENDATION:

THAT: the Source Protection Committee for the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region approve the draft policies relating to the proposed amendments noted in Report 8d of the November 27, 2020 meeting pending the implementation of any changes agreed to by the Source Protection Committee; and further,

THAT Drinking Water Source Protection Staff be directed to continue with Source Protection Plan consultation activities as required by O.Reg. 287/07.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Carl Seider', written in a cursive style.

Carl Seider
Project Manager, Drinking Water Source Protection