SAUGEEN, GREY SAUBLE, NORTHERN BRUCE PENINSULA SOURCE PROTECTION COMMITTEE MEETING #88

A G E N D A

Friday, March 25, 2022
1:00 p.m. – 4:00 p.m.

Virtual via Web/Ex app

CALL TO ORDER

1. **Adoption of Agenda**

2. **Declaration of Pecuniary or Conflict of Interest**

3. **Adoption of Minutes of December 3, 2021 meeting**

4. **Matters Arising from the Minutes**
   - None at this time

5. **Correspondence**
   - Backgrounder – Improving Road Salt Use in Ontario Through Best Practices (Minister's Letter)

6. **Reports**
   - Administration Report – **Report 6a attached**
   - Communications Report – **Report 6b attached**

7. **New Business**
   - Director's Technical Rule Amendments **– Report 7a Attached**
   - Source Protection Committee Appointments – **Report 7b Attached**
   - Annual Progress Report – **Report 7b Attached**

Delegation from Catherine Eby (Source Protection Liaison Officer)
- 2020 Annual Progress Reporting presentation

8. **Other Business**

9. **Next Meeting and Adjournment**

SOURCE PROTECTION COMMITTEE

MINUTES – MEETING #87

MEETING: **SOURCE PROTECTION COMMITTEE**

DATE: **FRIDAY, DECEMBER 3, 2021**

TIME: **1:30 P.M.**

LOCATION: **VIA WEB/EX VIRTUAL MEETING**

CALL TO ORDER

Chair pro tem, Dick Hibma, called the meeting to order at 1:25 p.m.

In Attendance: Chair, Bill Twaddle (at 1:40 p.m.)
Stan Eby, John Fruin, Dick Hibma, Dennis Kefalas, Angela Newman, Les Nichols, Dan Orr, Tara Saab, Gord Timmerman, Mitch Twolan

Others Present: Mary Gooding, 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: Emily Vandermeulen, Wellington County Risk Management
Karen Gillan, Communications Specialist, DWSP

Regrets: Robert Emerson, Jim Uram

1. <u>Adoption of Agenda</u>

It was noted that the minutes of the previous meeting cited in the Agenda should be changed from March 26, 2021 to July 23, 2021 and the Agenda was so amended.

Motion No. **Moved by Dennis Kefalas**
SPC-21-320 **Seconded by John Fruin**

THAT the Agenda be adopted as amended.

Carried

2. <u>Disclosure of Pecuniary or Conflict of Interest</u>

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. **Moved by John Fruin**
SPC-21-321 **Seconded by Dennis Kefalas**

THAT the Minutes of the July 23, 2021 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 dated August 4, 2021 respecting the Technical Review was **noted and filed.**

Copy of Report from Kyle Davis, Risk Management Official, to Wellington North Council respecting updates to the Saugeen Valley Source Protection Plan and Assessment Report was **noted and filed.**

Copy of Report from Kyle Davis, Risk Management Official, to Town of Minto Council respecting updates to the Saugeen Valley Source Protection Plan and Assessment Report was **noted and filed.**

Congratulations were conveyed to SPC member, Stan Eby, respecting his induction into the Canadian Agricultural Hall of Fame. What an honour for our esteemed member.

6. Reports

Administration Report 6a

The Project Manager reviewed Report 6a and advised that, respecting public consultation related to the Source Protection Plan (SPP) amendments, letters were sent to affected landowners and consultation moved forward to public consultation. Several articles were printed in local newspapers respecting source water, which raised public awareness. A webinar was presented on November 21, 2021 to municipal staff, neighbouring Risk Management Offices and MECP staff with a few dozen participants.

The budget is on trend for the fiscal year and new funding request templates received from the Ministry for the next two years, rather than one year, as in the past.

The proposed well in Chesley is currently going through an environmental assessment and the resulting technical work should provide some good information for Source Water. A threats assessment will be required and the results will be included in a Source Protection Plan in 2022, as will Scott's Point in the Municipality of Kincardine.

Source Water staff met with the Lake Rosalind Residents' Association respecting the condition of the lake. The Association is undertaking its own research by engaging a master's student and including water sampling to address issues and concerns. Saugeen Conservation provided helpful technical information regarding possible options to reduce potential impacts to Lake Rosalind and Marl Lake.

Communications Report 6b

The Communications Specialist reviewed Report 6b and advised Conservation Ontario launched a summer/fall social media campaign supporting public awareness of the program. The Grey Bruce Children's Water Festival was virtual in 2021 due to the covid pandemic and materials were distributed to the various participating schools. The Festival Committee is seeking committee members, including a volunteer treasurer. Data was processed respecting consultation and there were 235 hits on the Source Water website.

7. New Business

Source Protection Plan Pre-Consultation Report 7a

The Project Manager reviewed the Source Protection Plan Pre-Consultation Report 7a and advised that written comments received from the MECP and the County of Wellington supported the proposed amendments. On December 3, 2021, the MECP approved the technical rules that, up until that date, were unconfirmed relating to the amendments. The amended Source Protection Plan will be amended to reflect the approved technical rules. From the comments received from Wellington County, it will be a matter of finding the right balance under the Risk Management Plan. General policies were broadened to include all land uses in order to capture more scenarios, rather than less. Salt management should be a matter of standard practise amongst salt management contractors and no training will be required. Conservation authorities will be added to include responsibility for education and outreach provided it is a core or mandated responsibility of the Ministry.

Motion No. **Moved by Angela Newman**
SPC-21-322 **Seconded by Dennis Kefalas**

THAT: the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee receives this Report for information and supports noted changes to the Source Protection Plan to address comments received;

AND FURTHER: THAT the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee directs staff to submit proposed changes to the respective Source Protection Authorities for consideration prior to submission to the Ministry of the Environment, Conservation and Parks, pending approval of the amended Director's Technical Rules.

Carried

Lake Rosalind Surface Water Quality Report 7b

The Project Manager advised that Lake Rosalind, to the north-east of the Hanover Airport, and within the Municipality of Brockton, is an old quarry fed by natural springs and vulnerable to nutrient loading. Several wells supply landowners in close proximity, as well as water drawn directly from the Lake by other landowners. A wellhead protection area (WHPA) exists around the wells, and there has been coliform bacteria from surrounding fields and existing septic systems found in the lake water.

The Lake Rosalind Water Quality Committee is a subcommittee of the Lake Rosalind Residents' Association and has been monitoring water samples taken from the lake. The Committee has been encouraging best management practices and septic inspections, and the community is interested in how Drinking Water Source Protection could impact the drinking water sources. Under the *Clean Water Act*, this cluster could be added to the Terms of Reference and there are a number of steps required to have a private, not municipally-owned, drinking water source declared a system under the Program. This process could take several years and might not proceed with the support of the municipality and/or the Ministry. Alternatives to this process could be education and outreach, septic inspections, and working with the landowners and farmers. Reviewing vulnerability scores could result in the elevation to significant threats which would then be subject to applicable Source Protection Plan policies. There are implications if the Source Protection is amended with respect to the Lakes Rosalind and Marl. Discussions will continue with the municipality, landowners, Saugeen Conservation, and the Ministry respecting the options of dealing with septic threats and the Source Protection Committee will be apprised.

Motion No. **Moved by Dick Hibma**
SPC-21-323 **Seconded by John Fruin**

THAT: the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee receives this Report for information and directs Staff to provide a Report to the Saugeen Valley Source Protection Authority;

AND FURTHER: THAT Staff is directed to continue discussions with the Municipality of Brockton, the Lake Rosalind Residents Association and the residents surrounding Lake Rosalind/Marl Lake regarding the possibility of future Source Protection Plan amendments.

Carried

8. Other Business

There was no other business.

9. Confirmation of Next Meeting and Adjournment

The next Committee meeting will be held on **Friday, March 25, 2022** at 1:00 p.m. at a venue to be determined.

There being no further business, Gord Timmerman made a motion to adjourn at 2:45 p.m.

_____	_____
Bill Twaddle	Nancy Guest
Chair	Recording Secretary

Improving Road Salt Use in Ontario Through Best Management Practices

INTRODUCTION

This document is intended to seek feedback to inform the development of road salt best management practices (BMPs) to help reduce the impacts of excessive salting on our natural environment and water resources.

More specifically, the goal is to facilitate a discussion on factors driving overapplication of road salt, obstacles or challenges to adopting leading practices, and recommendations for optimizing road salt use through best practices.

Our aim is to support the winter maintenance sector in adopting sustainable practices as they relate to road salt application to help ensure our natural environment, waterways and drinking water are protected without jeopardizing public safety on paved surfaces during winter hazards.

CONTEXT

Trends and Impacts of Road Salt on Environment and Human Health

In Ontario, road salt is used extensively to control snow and ice hazards and make winter mobility safer and more efficient. In fact, Ontario uses over 2.2 million tonnes of road salt annually, spread on roads, parking lots, driveways and walkways (2018 Environmental Commissioner's Report).

Road salt can run off into waterways during heavy rainfalls and when snow and ice melt. Environmental research and monitoring show that road salt use for winter maintenance is increasing, leading to a rise in chloride and/or sodium (most common components of road salt) levels in Ontario streams, inland lakes, and the Great Lakes. Increasing concentrations are observed in urban areas in southern Ontario at times above Canadian Water Quality Objectives (Figure 1), and contamination levels at provincial water quality monitoring stations show increasing trends (Figure 2). For example, contamination in Lake Simcoe may reach toxic levels in less than 60 years if increasing trends continue (Figure 3). In addition, shifting weather patterns associated with climate change, such as changing freshet patterns and increased frequency of freeze-thaw cycles, combined with population growth pressures, often result in the need for more road salt use (Todd & Kaltenecker, 2012).

High concentrations of road salt in the environment can contaminate drinking water sources (Figures 4 & 5), harm plants, animals, and aquatic ecosystems, and damage public infrastructure, private property and crops. Chloride from road salt can be retained in watersheds from months to years (Bastviken et al., 2006; Bester et al., 2006).

Road salt can also pose a risk to human health through its negative impacts on drinking water. Salt is very challenging to remove from raw drinking water through treatment, and high salt levels can degrade drinking water sources. While sodium in drinking water is not a health concern for most people, it may become a significant source of sodium and pose an issue for someone with severe hypertension, congestive heart failure or on a sodium-restricted diet. It is essential to protect our sources of drinking water and areas most vulnerable to contamination from excessive road salt.

Policy Context

While road authorities have guidelines and provincial regulations that are followed to try to optimize the application of road salt and implement BMPs on municipal and provincial roads, there is not an authoritative set of practice standards, guidelines or protocols for winter maintenance operations on properties such as parking lots and private roads and sidewalks. Research suggests road salt use and application rates are much higher on commercial properties than on public roads, sidewalks tend to have a higher than recommended application rate (Figure 6), and there is room to optimize these practices.

For example, in the Lake Simcoe watershed, road salt application on commercial properties such as parking lots accounts for approximately 20% of 100,000 tonnes applied annually (Figure 7). While roads are also a large contributor of road salt, progressive winter maintenance practices are becoming more commonplace for winter road maintenance. Parking lots are often subject to very high application rates and can account for anywhere from 20% to 50% of the chloride in streams in urban areas (Lake Simcoe Region Conservation Authority, Winter Salt: Polluting our Freshwater Resources, 2016).

Obstacles to Addressing Over-Application of Road Salt

While multiple agencies and government guidelines encourage the sensible use of salt, a set of government BMPs is not available. There are a number of existing lists of practices that are believed to be reasonably understood by the winter maintenance contractors. However, research suggests the uptake of improved approaches and methods has been slow, despite their demonstrated effectiveness relative to existing or traditional practices. This could be impacted by several factors discussed below.

Studies suggest that many contractors do not have the equipment to measure the road salt they apply at different locations, and there is uncertainty about selecting products and application rates. Another reason for the low adoption rate appears to be the lack of formal studies and guidelines that explain the correct use and potential savings for parking lots and sidewalks. More work needs to be done to show that excessive and ineffective use of salt and sand-salt mixtures under several conditions may create other costs and liabilities. Furthermore, high initial cost of using liquids and treated salts is a significant hurdle in adopting new methods and technologies.

Contractors are also under significant public pressure, including from their clients, for more salting. There is an overwhelming misconception that, when it comes to road salt, more is better. Many people believe that bare pavement must be seen in all weather conditions and that this signals public safety on paved surfaces during winter months. This societal expectation of clear surfaces, along with potential liability exposure and rising insurance costs, have encouraged contractors to apply excessive amounts of road salt each year.

APPROACHES IN OTHER JURISDICTIONS

Canada: All provincial road organizations (except Quebec) have adopted the 2004 Federal Code of Practice; most use innovative technology and application practices to reduce salt use on the surfaces they maintain and manage salt storage. Despite this move toward improved winter maintenance practice, there has been no significant change in salt use due to growth and associated infrastructure. Many Canadian jurisdictions have voluntary training and certification programs and encourage anti-icing methods, including road salt and new technologies.

U.S. Great Lakes states: Minnesota and New York (similar climatic conditions to Ontario) have policies to reduce road salt application rates through guidelines. In 2013, New Hampshire passed liability exemption legislation for salt applicators who participate in voluntary smart salting training and certification programs. In 2016, Illinois passed legislation to ensure liability for snow removal is shared by service providers and service receivers (similar legislation has been proposed in Michigan, New York, Pennsylvania, and Minnesota).

Other international: Studies show chloride concentrations in groundwater and surface water have been increasing over time. Many European jurisdictions now regulate the use of road salt. The use of dry salt for de-icing is prohibited in Finland and Germany. Pre-wetted salt is the primary application method used in Finland, Germany, Iceland, the Netherlands, the UK, and Switzerland. Pre-wetting salt has been shown to reduce salt waste and runoff by up to 30% percent. In New Zealand, salt as a de-icer was discontinued, and calcium magnesium acetate (CMA, often used to de-ice planes and runways) is now widely used on roads. A 5-year trial showed CMA had no negative impacts on water quality, vegetation, or soil chemistry. No examples of liability protection were identified.

PROPOSED APPROACH FOR ONTARIO – BEST MANAGEMENT PRACTICES

The province, working with stakeholder partners, is proposing to develop BMPs to guide winter maintenance activities on properties such as parking lots and private roads, and sidewalks, which will help protect the environment and human health. Establishing a robust set of BMPs could provide occupiers and the winter maintenance contractors they hire with information to support an integrated winter maintenance practice that is informed and considers site-specific conditions. The suite of BMPs would help winter

maintenance professionals make decisions that optimize road salt practices and protect the environment.

The BMPs could consider personnel training, application methods and rates, equipment calibration, enhanced plowing techniques, road weather information (including the use of forecasting) and the use of different types of products depending on conditions, among other aspects of a road salt management practice, as well as others that may emerge in discussions. The development of the BMPs would be a collaborative and consultative process, reflective of the best available salt science and information and existing guidelines, based on leading practices. Over time, the best practices would need to adapt to remain up-to-date and rooted in the best available science, such as regular, consultative reviews.

Discussion Questions:

1. What are some important considerations in developing a robust set of road salt BMPs (e.g., scope, level of detail, applicability to site-specific conditions, room for professional discretion, review cycle to maintain BMPs, etc.)?

2. What additional research or data/information are needed to inform the development of BMPs?

3. Do you think there should be BMPs for different types of land uses? If yes, what land-use types require unique BMPs, and what BMPs do you suggest?

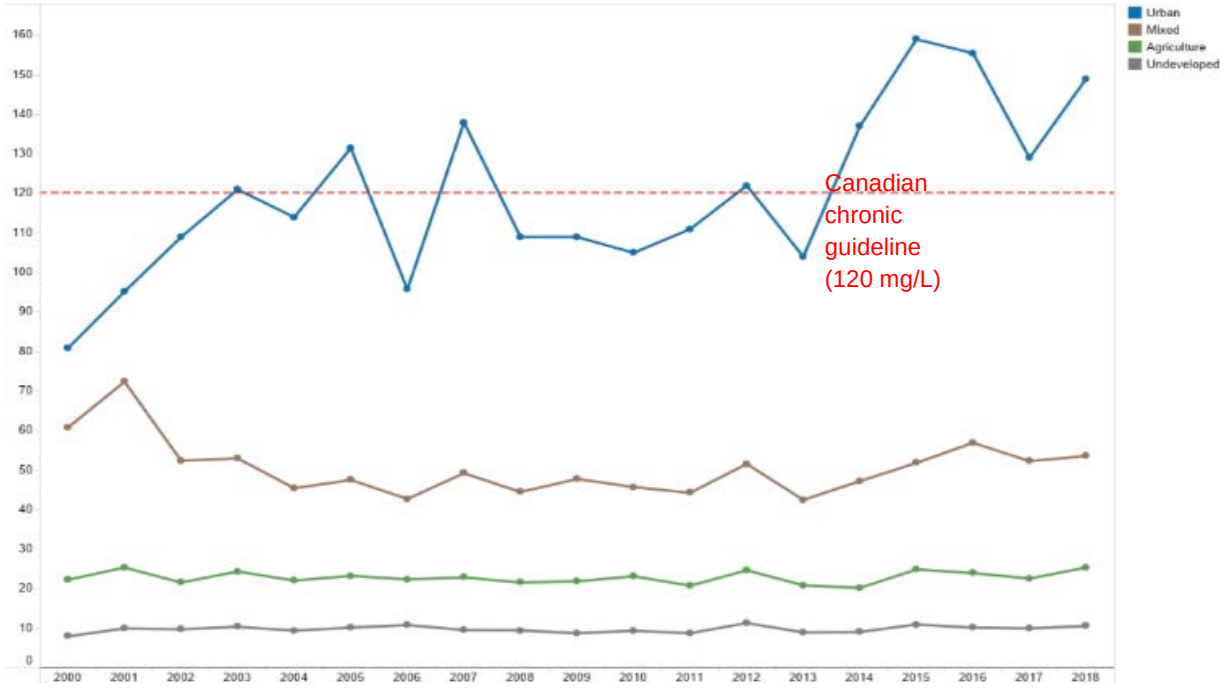
4. Based on your experience, do you think a single, authoritative set of BMPs implemented by trained personnel would help to reduce liability exposure?

5. What is the best way to encourage the adoption of BMPs by the winter maintenance industry?

APPENDIX

Environmental research and monitoring show that road salt use for winter maintenance is increasing, leading to a rise in chloride and/or sodium (most common components of road salt) levels in Ontario streams, inland lakes, and the Great Lakes. Over time, chloride concentrations have been measured above the Canadian chronic effects guideline of 120 mg/L (the chronic guideline refers to long-term exposure) to protect aquatic health.

Figure 1 (below): Chloride science and monitoring – stream concentrations of chloride 2000-2018 in southern Ontario (Source: MECP-EMRB)



REPORT #6a

TO: **SOURCE PROTECTION COMMITTEE**

DATE: **MARCH 25, 2022**

SUBJECT: **ADMINISTRATION REPORT**

Sec.36 Source Protection Plan Amendments – Submission

On February 23, 2022, on behalf of the Source Protection Committee and Source Protection Authorities, Staff submitted Source Protection Plan amendments that were completed in accordance with the s.36 Order as part of the Minister's approval of the Source Protection Plan on October 16, 2015.

The Order required the comprehensive review and update of the Assessment Report and Source Protection Plan, and that it be developed in consultation with the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee (SPC), participating municipalities of the source protection authorities, and the Ministry of the Environment, Conservation and Parks (MECP).

The focus of the Source Protection Plan amendments addressed the following areas:

- New/amended Wellhead Protection Areas (Blairs Grove, Durham, and Dundalk)
- New East Linton Intake Protection Zone 3/Events-based Area for large fuel storage threats
- Policy changes for salt application and storage threats
- Policy changes for fuel storage and handling threats, and
- Policy direction for Risk Management Officials regarding Sec.59 land use screenings.

Included with this submission were the amendments to the Source Protection Assessment Reports, amended maps, as well as all the supporting consultation materials that were used during the Sec.36 review process. The noted changes to the Plan also took into account the majority of recent changes to the Source Protection Director's Technical Rules 2021, with the exception of changes for snow storage threats.

Source Protection Program Funding/Workplan Update

In December 2021, Staff received a formal request to submit a draft 2022/2024 Drinking Water Source Protection (DWSP) Program workplan regarding program funding approvals. The workplan template and eligible expenses were similar to the last fiscal year with the exception of it being a 2-year agreement.

The staffing portion of the budget included a request for the same level of staffing in 2022/2023 with a slight reduction of 0.2 FTE in 2023/2024.

The 2022/2024 workplan includes:

- Drinking Water Source Protection (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 to address anticipated Sec.34 amendments.

The following Plan updates are anticipated as part of the Sec. 34 amendments:

- New wellhead protection area mapping and vulnerability scores for a new groundwater well in Chesley (Arran-Elderslie), a new municipal drinking water system in Scott's Point (Kincardine), and possible new well in Clifford (Town of Minto).
- Review Lake Rosalind WHPA delineations and vulnerability scores for possible changes to septic system threat policies given increased results of E. coli in lake water samples.
- Phase 2 Technical Rule changes for snow storage threats currently under review and assessment of possible revisions to snow storage policies to address these changes.

<u>MECP Best Practices for Source Water Protection - Guidance Document</u>

The Ministry of the Environment, Conservation and Parks has recently released best practices for source water protection to help ensure communities and landowners in areas not covered by provincially-approved source protection plans have the tools needed to protect drinking water sources. Types of drinking water systems not generally included in source protection plans include privately-owned wells or cottage lake intakes and communal well systems for places like campgrounds.

The new user-friendly best practices provide easy to understand information and tips to help protect these drinking water sources from contamination, such as how to ensure a septic system is functioning properly and how to store on-site fuel tanks and pesticides safely. The best practices also provide municipalities with information on how to use existing regulatory and non-regulatory tools under the *Planning Act*, *Municipal Act* and septic inspection programs under the Ontario Building Code to protect sources of drinking water.

Staff are currently reviewing the best practices, and plan to engage with municipalities over the next couple of years to determine the level of interest and implementation across the Region.

RECOMMENDATION: THAT the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee receives this Administration Report 6a for information.

Respectfully submitted,

Carl Seider
Project Manager
Drinking Water Source Protection

REPORT #6b

TO: **SOURCE PROTECTION COMMITTEE**

DATE: **MARCH 25, 2022**

SUBJECT: **COMMUNICATIONS REPORT**

Annual Progress Report

Work is underway for the annual newsletter and documents that accompany the release of annual reporting results.

Ministry of the Environment, Conservation and Parks

The Ministry of the Environment, Conservation and Parks has released a new "Best Practices for Source Water Protection" resource to protect water sources and drinking water systems that are not included in a source protection plan or aren't regulated by the *Clean Water Act*. The information is available at this link: https://www.ontario.ca/document/best-practices-source-water-protection Over the next two years, staff will be setting up meetings with municipalities across this Region to better understand the guidance material and help with its implementation for interested municipalities.

Social Media

Conservation Ontario (CO) continues to support the public's awareness of one of Ontario's flagship programs, Drinking Water Source Protection (DWSP), and has implemented a social media campaign - Winter Wednesdays (December 2021- March 2022).

This social media campaign was based on the themes: home fuel storage and handling, snow storage and road salt storage and application. The campaign consisted of 14 social media posts that were shared on Twitter and Facebook.

Grey Bruce Children's Water Festival

Preparations are well underway for a virtual format festival in May 2022. The committee is working on an engaging program for schools and education settings and is hopeful to return to an in-person festival in 2023. Continued support of local sponsors makes this event feasible.

Communications Resource

Our neighbours at Ausable Bayfield Maitland Valley have received funding and produced a series of videos featuring Source Protection Committee members that they have shared along with some Conservation Ontario videos on their website:

http://www.sourcewaterinfo.on.ca/news/videos/ These videos are excellent at explaining drinking water source protection related topics.

Respectfully submitted,

Karen Gillan
Communications Specialist
Drinking Water Source Protection

REPORT #7a

TO: **SOURCE PROTECTION COMMITTEE**

DATE: **MARCH 25, 2022**

SUBJECT: **DIRECTOR'S TECHNICAL RULES AMENDMENTS**

MECP Director's Technical Rules Amendments

The Director's Technical Rules for source water protection were recently amended on December 3, 2021 with an aim to:

- Clarify terminology, e.g. impervious surface methodology for salt threats; naming convention for certain types of vulnerable areas (i.e. land setbacks from shore associated with intake protection zones; off-site contamination).
- Clarify the information needed to conduct a water quality climate change risk assessment.
- Clarify situations where a surface-water-based WHPA-E is to be delineated/amended, i.e. groundwater and surface water interaction can impact water quality at a well.
- Update the Tables of Drinking Water Quality Threats (Tables) and integrate them into the Rules as one document.

Staff will be working through the 2021 Director's Technical Rule amendments in greater detail to determine what additional changes to the local Source Protection Plan may be necessary or warranted due to local concerns/conditions.

A summary of the Technical Rule changes are noted in the table below, with final changes noted in yellow highlight:

Director's Technical Rule Changes Update

Topic	Amendments as of Dec. 3, 2021
Road Salt Storage	Proposed volumes for significant risks are: (1) ≥10 kg for IPZs scored 10 and ≥ 20 kg for WHPAs scored 10 for uncovered storages (2) ≥ 100 kg for potentially covered storage. IPZ and WHPA scoring 10; (3) Facilities not exposed to precipitation or runoff are either moderate or low threats
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	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 the total storage* on the same property regardless of the type of land use. ** Use professional judgement to determine whether the risk is associated with Individual or total storage of fertilizer, e.g. local characteristics of the property.*
Storage of Snow	(1) Snow stored <200m^2, IPZ or WHPA score of 10 (2) Snow stored >200m^2 <2000m^2, IPZ/WHPA-E score greater than 9, and WHPA score of 10 (3) Snow stored >2000m^2, IPZ/WHPA-E score greater than 8 and WHPA score of 10
Application of Waste to land	Changed wording of threat category from Application of Waste Biomass to 'Processed Organic Waste' to land.

RECOMMENDATION: THAT the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee receives Director's Technical Rules Amendments Report 7a for information and directs staff to continue to review the Director's Technical Rules changes and to bring back possible Source Protection Plan amendments at an upcoming Committee meeting.

Respectfully submitted,

Carl Seider
Project Manager
Drinking Water Source Protection

REPORT # 7b

TO: **SOURCE PROTECTION COMMITTEE**

DATE: **MARCH 25, 2022**

SUBJECT: **SOURCE PROTECTION COMMITTEE MEMBER RENEWALS**

Ontario Regulation 288/07 "Source Protection Committees" sets out the requirements for the size, appointment and operation of source protection committees (O.Reg. 288/07). In the past year, there have been several members who have expressed an interest in not renewing their membership on the Committee. Furthermore, municipal representatives are due for the 5-year renewal/replacement in 2023. Below is a list of current SPC representatives:

Chair	Bill Twaddle: Appointed March 22, 2017 by The Hon. Glen R. Murray, Minister of the Environment and Climate Change
Municipal	Dennis Kefalas: Group 1 – Northern Bruce Peninsula, South Bruce Peninsula, Owen Sound, Georgian Bluffs
	Mitch Twolan: Group 2 – Huron-Kinloss, Kincardine, Saugeen Shores, Howick, Morris-Turnberry, South Bruce
	John Fruin: Group 3 – Arran-Elderslie, Brockton, Hanover, Minto, Southgate, Wellington North
	Jim Uram: Group 4 – Chatsworth, West Grey, Grey Highlands, Meaford, Blue Mountains
Agricultural	Stan Eby: Farmer, Kincardine
	Robert Emerson: Farmer, Huron-Kinloss
	Les Nichols: Farmer, South Bruce
Commercial/ Industrial	Gord Timmerman, South Bruce Peninsula resident
Environment	Dan Orr, West Grey resident
	Tara Saab, Owen Sound resident
Health	Angela Newman, Grey Bruce District Health Unit
Public	Richard (Dick) Hibma

O. Reg. 288/07 provides flexibility for the Source Protection Authority to change the Committee size while maintaining one-third proportionality among the three sectors (i.e. Municipal, Agricultural/Commercial, and Other which includes environment, public health and general public). In 2017, the Committee size was reduced to twelve members.

Considering the anticipated reduction in future amendments to the Source Protection Plan and issues with keeping current SPC members engaged, staff are looking for feedback on the possibility of reducing the size of the Committee to nine members (reducing the number from each grouping by one member).

Pending direction from the Source Protection Committee, approval to reduce the size of the Committee would be required by the Saugeen, Grey Sauble, Northern Bruce Peninsula Management Committee as well as input from affected municipalities regarding the need to reallocate municipal representation.

Current municipal representation:

Groups	Municipal Representation
1	Northern Bruce Peninsula, South Bruce Peninsula, Georgian Bluffs, Owen Sound
2	Saugeen Shores, Kincardine, Huron-Kinloss, Howick, Morris-Turnberry, South Bruce
3	Arran-Elderslie, Brockton, Hanover, Southgate, Wellington North, Minto
4	West Grey, Grey Highlands, Chatsworth, Meaford, Town of Blue Mountains

Proposed municipal representation if Committee size reduced:

Groups	Municipal Representation
1	NBP, SBP, Georgian Bluffs, Owen Sound, Arran-Elderslie, Saugeen Shores
2	Kincardine, Huron-Kinloss, Howick, MT, South Bruce, Southgate, WN, Minto
3	Brockton, Hanover, West Grey, Grey Highlands, Chatsworth, Meaford, TBM

THAT the Source Protection Committee support in principle the reduction of the Source Protection Committee to nine members; and further,

THAT the Source Protection Committee directs Staff to engage the Source Protection Region Management Committee on renewal of Committee members and possible size reduction.

Respectfully submitted,

Carl Seider
Project Manager
Drinking Water Source Protection

REPORT # 7c

TO: **SOURCE PROTECTION COMMITTEE**

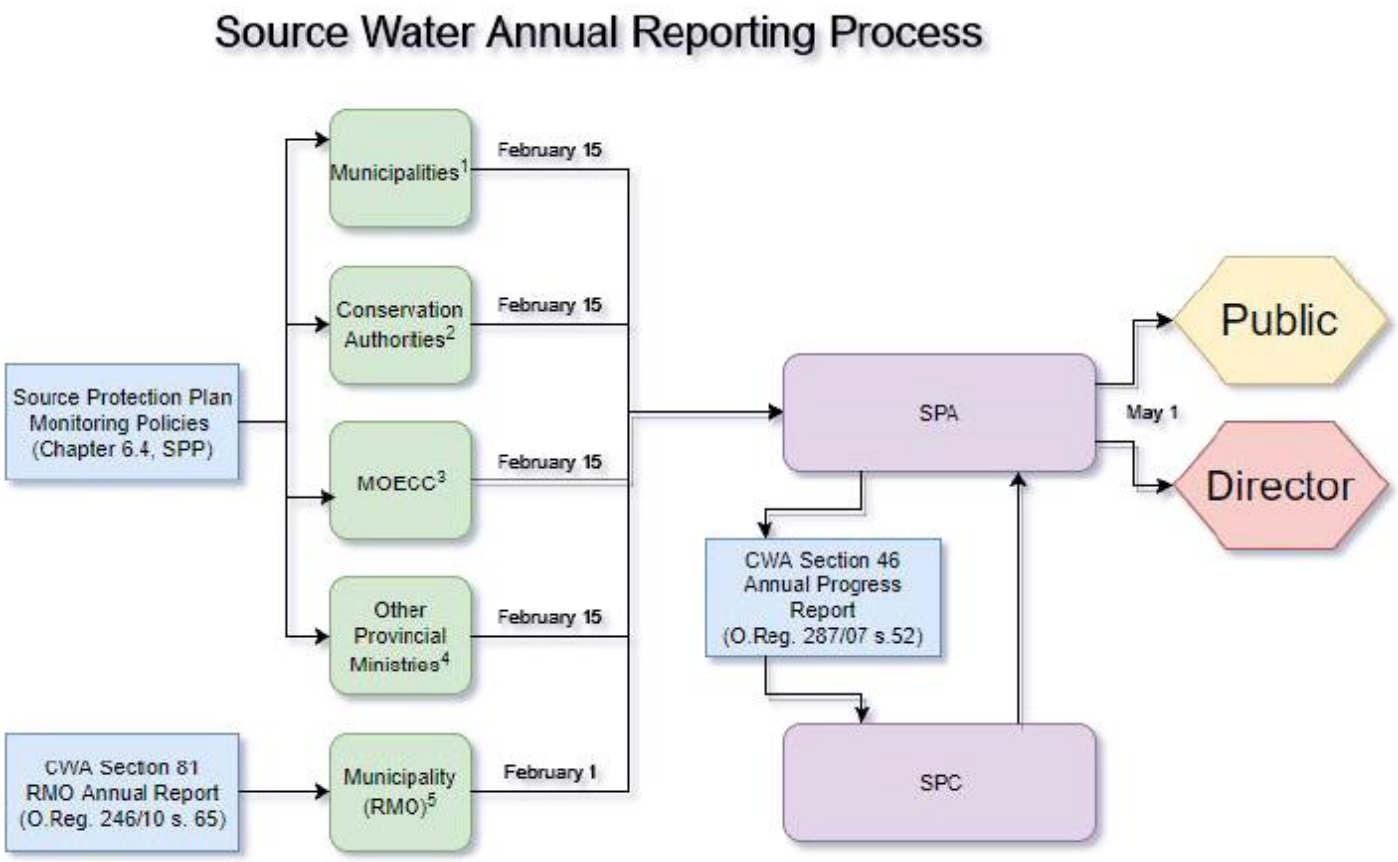
DATE: **MARCH 25, 2022**

SUBJECT: **ANNUAL PROGRESS REPORT- 2021**

The Annual Progress Report for the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region covers the period of January 1, 2021 to December 31, 2021 and must be submitted to the Ministry of the Environment, Conservation and Parks (MECP) by May 1, 2022.

This Report highlights the progress of Source Protection Plan implementation, results of municipal monitoring programs, risk management activities, Ministry reporting of prescribed instruments, and reporting requirements for Conservation Authorities under the local Source Protection Plan.

Below is a flow chart outlining the annual reporting submission process.



The Source Protection Committee (SPC) is required to conduct a formal review of the annual progress report and provide written comments regarding the extent to which the objectives set out in the Source Protection Plan are being achieved.

The following is a summary of the information included in the draft Annual Progress Report:

- To-date, 153 out of an estimated 175 Risk Management Plans have been completed across the Region. An extension request to complete remaining RMP's was approved by the Ministry of Environment, Conservation and Parks with a new deadline of December 31, 2022.

- There have been 203 inspections carried out by Risk Management Inspectors for prohibited or regulated activities, with a 100% compliance rate (17 completed in 2021).

- All 21 upper/lower-tier municipalities across the Region have completed or are in the process of completing Official Plan/Zoning By-law updates. Nineteen have fully completed Official Plan updates. Given recent impacts affecting consultation processes due to the COVID-19 pandemic, a few municipalities have extended their Official Plan/ Zoning by-law amendments into 2022.

- 99% of septic inspections have been completed as required under the *Clean Water Act* and *Building Code Act* within vulnerable source protection areas, with an additional 11 septics inspected in 2021 as part of the 2nd round of septic inspections. An increasing number of inspections are scheduled for 2022 as part of the 2nd round.

- In 2021 detailed reviews were completed by Ministry of the Environment, Conservation and Parks staff for three wastewater/sewage works approvals, with two identified as a Significant Drinking Water Threat (SDWT) to be managed through an existing Prescribed Instruments. Furthermore, three Nutrient Management Strategies were reviewed by Ministry of Agriculture Food and Rural Affairs staff but determined to not be a SDWT.

- 100% of the significant drinking water threat policies have been implemented. Of these, 97% have been fully implemented and 3% require no further action.

- Following the completion of municipal outreach meetings, it has been determined that all municipalities across the Region are prepared to meet Source Protection Plan implementation requirements. This engagement was key to the completion of proposed Sec.36 Plan amendments.

Attached is a draft copy of the Source Protection Annual Progress Report for review.

RECOMMENDATION: THAT the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Committee receives a copy of the draft Source Protection Annual Progress Report and directs Staff to provide the Report, along with any comments to the Ministry of the Environment, Conservation and Parks by May 1, 2022.

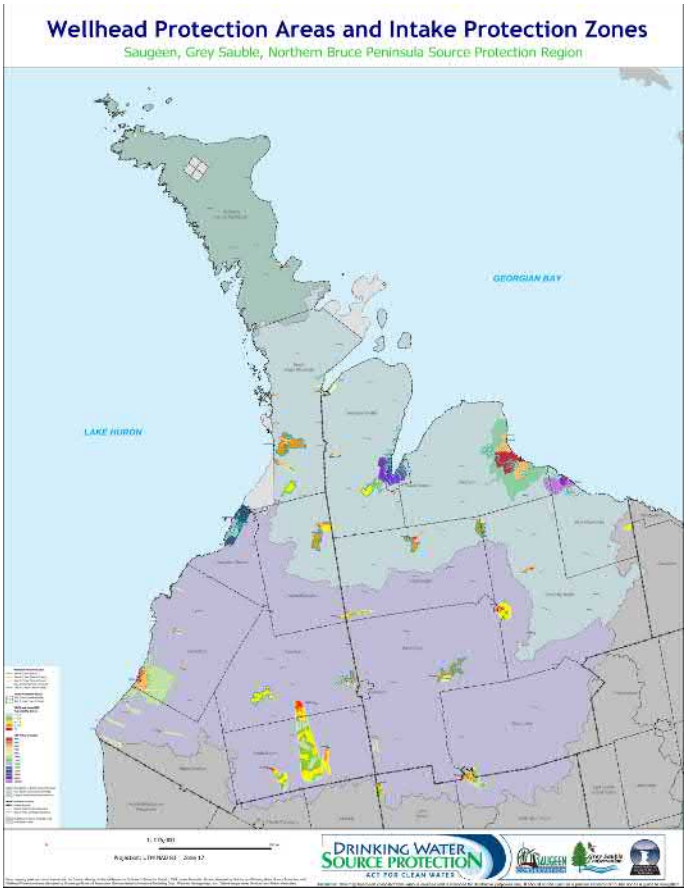
Respectfully submitted,

Carl Seider
Project Manager
Drinking Water Source Protection

2021 Source Protection Annual Progress Report

I. Introduction

This annual progress report outlines the progress made in implementing our source protection plan for the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region, as required by the Clean Water Act, 2006 and associated regulations.
With our Region's Source Protection Plan coming into effect in July of 2016, we have now completed the established 5-year timeline for implementation of our significant drinking water threat policies. Plans are currently underway for the renewal and replacement of Source Protection Committee members over the next couple years as required under the Clean Water Act, 2006. Sec.36 Source Protection Plan amendments as specified under the Minister's Order, including extensive consultation efforts have been completed and submitted for Ministry of the Environment, Conservation and Parks review. These Plan amendments addressed recently updated Director's Technical Rule changes and were in line with previous consultations with municipalities, RMOs and other key stakeholder groups.



II. A message from your local Source Protection Committee

Our progress score on achieving source protection plan objectives this reporting period:

☒ **P: Progressing Well/On Target** – The majority of the source protection plan policies have been implemented and/or are progressing.

☐ **S: Satisfactory** – Some of the source protection plan policies have been implemented and/or are progressing.

☐ **L: Limited progress** – A few of source protection plan policies have been implemented and/or are progressing.

The great progress to date on source protection plan implementation was made possible with the strong support and direct involvement of municipalities, agricultural and industry sectors, as well as other environmental and health related stakeholder groups. While the program has reached a major milestone whereby 100% of significant threat policies have been implemented, there is still a need to ensure that any municipal plan/by-law amendments or outstanding risk management plans that are currently in-progress are fully implemented in a timely manner. The current pandemic situation has resulted in some delays in completing all required risk management plans and municipal Official Plan amendments within the 5-year implementation timeline. The Source Protection Committee is certain that the significant progress achieved to-date is a direct result of provincial funding dedicated to source water protection. The committee acknowledges and commends the Ministry of Environment, Conservation and Parks for recent source protection budget extensions for the next 2 years and truly appreciates its ongoing commitment to the program. The committee would also like to congratulate the Ministry on the release of best practices for source water protection to help ensure communities and landowners in areas not covered by provincially-approved source protection plans have the tools they need to protect their drinking water sources.

III. Our Watershed

To learn more, please read our assessment report(s) and source protection plan(s).

The Saugeen, Grey Sauble, Northern Bruce Peninsula Source Protection Region is comprised of three Source Protection Areas. These areas are the Saugeen Valley Source Protection Area, the Grey Sauble Source Protection Area and the Northern Bruce Peninsula Source Protection Area. The Region represents approximately 8400 km2 and has approximately 160,000 residents. Our Source Protection Region also includes the Chippewas of Saugeen, who have reserve land outside of Southampton, the Chippewas of Nawash, who have the Neyaashiinigmiing reserve in the Cape Croker area and the Métis Nation of Ontario.

The Saugeen Source Protection Area (Saugeen SPA) is comprised of the watershed that represents the jurisdiction of the Saugeen Valley Conservation Authority. The Municipality of West Grey is the most populated municipality in this SPA. With the exception of Hanover, each municipality is comprised of settlement areas surrounded by extensive rural areas. The vast majority of the Saugeen SPA averages less than 20 people per km2. The lowest population densities occur in the farmlands away from Lake Huron and in the eastern portions of the SPA. Between the 15 municipalities located in this SPA, there are a total of 21 municipal drinking water systems. These systems include the Arran-Elderslie Drinking Water System (DWS), Walkerton DWS, Chepstow DWS, Lake Rosalind DWS, Markdale Well Supply, Hanover Water Treatment Plant, Lakeshore DWS, Village of Ripley Well Supply, Scott Point DWS, Underwood DWS, Tiverton DWS, Armow DWS, Kincardine DWS, Minto Pines Subdivison DWS, Clifford Well Supply, Southampton Water Treatment Plant, Mildmay Well Supply, Teeswater Well Supply, Mount Forest DWS, Durham Well Supply and the Neustadt Well Supply.

The Grey Sauble Source Protection Area (Grey Sauble SPA) is comprised of the watershed that represents the jurisdiction of the Grey Sauble Conservation Authority. The City of Owen Sound is the most populated municipality in the Grey Sauble SPA, where there are more than 880 people per km2. Similar concentrations can be found in the larger urban centres such as Markdale, Meaford and Thornbury. That being said, the vast majority of the Grey Sauble SPA averages less than 20 people per km2. Between the 8 municipalities located in this SPA, there are a total of 15 municipal drinking water systems. These systems include the Tara Drinking Water System (DWS), Thornbury DWS, Chatsworth DWS, Walters Falls DWS, Pottawatomi Village Water Treatment Plant, Shallow Lake Water Treatment Plant, East Linton Water Treatment Plant, Kimberly-Amik-Talisman Well Supply, Meaford PUC Water Treatment Plant, R.H. Neath Water Treatment Plant, Amabel-Sauble DWS, Foreman Water Works, Huron Woods Water Supply Works, Oliphant Water System and the Wiarton Water Treatment Plant.

The Northern Bruce Peninsula Source Protection Area (NBP SPA) is comprised of the area that falls under the jurisdiction of the Municipality of Northern Bruce Peninsula, with the exception of some small areas along the bottom portion of the municipality that are covered under the Grey Sauble SPA. Lion's Head and Tobermory are the largest settlement areas in the NBP SPA. There are extensive rural areas and cottage developments on the Lake Huron and Georgian Bay shorelines and some inland lakes, with an average of five people per km2. Within this SPA, there are two drinking water systems, these are the Tobermory Community Centre/ Fire Hall/ Municipal Concession Stand, and the Lion's Head Water Treatment Plant.

IV. At a Glance: Progress on Source Protection Plan Implementation

1. Source Protection Plan Policies and Addressing Significant Risks

P: Progressing Well/On Target

The Source Protection Plan is comprised of 62 policies that address significant drinking water threats directly, and 57 policies that address other areas such as the general, transport pathways and monitoring policies. 100% of the policies that address significant drinking water threats are implemented, or have been evaluated and determined that no further action is required. Of these, 97% of the policies have been fully implemented, and 3% require no further action, which includes Policy 02-06 Building Code Changes Related to On-site Sewage Systems (addressed through existing Building Code requirements) and Policy 06-02 NASM Plan Approvals (was directed at OMAFRA instead of MECP environmental compliance approvals).

Of the policies not specifically associated with signficant drinking water risks, only one policy has not been fully implemented - G-04 Amend Official Plan and Zoning By-Law, as there remains a couple municipalities that have yet to complete their amendments. These amendments are underway, but were delayed due to pandemic restrictions which affected public consultations efforts.

2. Municipal Progress: Addressing Risks on the Ground

The Region contains almost the full extents of Grey County and Bruce County, as well as small portions of the Counties of Wellington and Huron. There are 25 municipalities (including upper-, lower, and single-tier), within our source protection region, 21 of which have vulnerable areas where significant drinking water threat policies apply.

P: Progressing Well/ On Target

100% of the municipalities in our source protection region have processes in place to ensure that their day-to-day planning decisions conform with our source protection plans.

Municipalities in our source protection region are also required to take the next step to review and update their Official Plans and Zoning By-Laws, where applicable, to ensure that they conform with the local source protection plans. This is to be done the next time they undertake an Official Plan review under the Planning Act. Of the 21 municipalities required to complete the Official Plan conformity exercise, 100% have amended or are in the process of amending their Official Plans (19 fully implemented and 2 in-progress). Of the 17 municipalities required to complete the Zoning by-law conformity exercise, 100% have amended or are in the process of amending their Zoning by-laws. Staff have been working with municipalities to ensure that all required Official Plan and Zoning by-law amendments are completed in a timely manner. Due to recent impacts affecting consultation processes due to the COVID-19 pandemic, a few municipalities have extended their Official Plan/ Zoning by-law amendments into 2022.

3. Septic Inspections

P: Progressing Well/On Target

99% of on-site sewage systems have been inspected in accordance with the Ontario Building Code. Inspection results have found that the majority (98%) are functioning as designed or carrying out required pump-outs. 2% of the systems required major maintenance, which have been addressed. These included replacement of tank covers and tank replacement.

All municipalities within our source protection region are aware of the requirements to implement a mandatory on-site sewage maintenance inspection program within vulnerable source protection areas as specified under the Building Code (Ontario Regulation 332/12 under the Building Code Act). Septics are required to be inspected once every 5 years within vulnerable source protection areas.

An additional 11 septic were inspected in 2021 as part of the 2nd round of septic inspections. An increasing number of inspections are scheduled for 2022 as part of the 2nd round.

4. Risk Management Plans

P: Progressing Well/On Target

As of December 31, 2021, 153 risk management plans were established in our source protection region. An estimated total of 175 risk management plans are required across the region. The source protection plan identified a timeline of 5 years to complete risk management plans for existing threats (2021 was the final year of implementation). An extension from the Ministry to complete the remaining Risk Management Plans (RMP's) was approved on December 17, 2021, based on the fact that staff have been unable to conduct field visits and to effectively negotiate RMPs over the past 2 years due to COVID-19 restrictions. The timeline for this extension to complete RMPs is December 31, 2022.

There have been 203 inspections carried out by a Risk Management Inspectors for prohibited or regulated activities. There is a 100% compliance rate with the risk management plans established in our source protection region.

5. Provincial Progress: Addressing Risks on the Ground

P: Progressing Well/ On Target

Ontario ministries are reviewing previously issued provincial approvals (i.e., prescribed instruments, such as environmental compliance approvals under the Environmental Protection Act) where they have been identified as a tool in our plan to address existing activities that pose a significant risk to sources of drinking water. The provincial approvals are being amended or revoked where necessary to conform with plan policies. Our policies set out a timeline of 3 years to complete the review and make any necessary changes.

The ministries have completed this for 100% of previously issued provincial approvals in our source protection region. This detailed review included 37 of drinking water licenses and drinking water works permits, 11 Nutrient Management Strategies and Non-Agricultural Source Material Plans, 1 waste disposal site, 42 hauled sewage permits, and 10 sewage works/wastewater.

Since 2016, a detailed review of 3 waste disposal sites were completed, 12 hauled sewage permits and 1 Water Taking Permit, which were all determined not to be a significant drinking water threat (SDWT). Also, 17 wastewater/sewage works were reviewed with 10 identified as not a SDWT and 7 as a SDWT, where no additional conditions were needed. Also, 13 Nutrients Management Strategies (NMS) and Non-Agricultural Source Material (NASM) Plans were identified for review, 8 were determined not to be SDWT, with 4 NMS and 1 NASM Plan identified as a SDWT.

In 2021 detailed reviews were completed for 3 wastewater/sewage works approvals, with 2 identified as a SDWT to be managed through an existing Prescribed Instrument. Furthermore, 12 hauled sewage permits and 3 NMS were reviewed but determined to not be a SDWT.

6. Source Protection Awareness and Change in Behaviour

There are a total of 152 Drinking Water Protection Zone signs that have been installed in our source protection region. 138 signs were installed by Municipalities and Counties, as well as 14 by the Ministry of Transportation on provincial highways.

The installation of these road signs have greatly increased public awareness of source protection zones across the region and have resulted in increased communications from the public regarding clarification on source protections areas and related source protection policies. They have also increased notifications of potential activities that could affect vulnerable source water protection areas.

Additionally, the risk management process has greatly increased awareness across the region. Through direct interactions with affected landowners, understanding of the program is growing along with an understanding of the need to protect drinking water sources.

7. Source Protection Plan Policies: Summary of Delays

Not applicable to our source protection region/area.

8. Source Water Quality: Monitoring and Actions

In our source protection region/area, no issues have been identified in our local science-based assessment reports regarding the quality of the sources of municipal drinking water.

Under monitoring policy M-29 the municipality of Brockton continues to monitor nitrate levels for wells 7 and 9. Results of this monitoring have shown that nitrate levels have decreased and continue to decrease below the Maximum Allowable Concentration of 10 mg/L as per O. Reg. 169/03: Ontario Drinking Water Quality Standards (ODWQS).

As part of the proposed Ministry of Environment, Conservation and Parks (MECP) Phase 2 Technical Rules review of salt application threat circumstances, staff conducted a preliminary review of an additional 12 drinking water systems where salt application threats could apply (in addition to the Durham and Mount Forest Wells). Of these, 4 systems measured sodium levels above the aesthetic standard for sodium (greater than 20 mg/L). As part of the proposed Sec.36 Source Protection Plan amendments and Phase 2 Technical Rule changes, salt application/storage threat policies would now apply to additional areas.

9. Science-based Assessment Reports: Work Plans

In 2021 staff participated in meetings with the Lake Rosalind/Marl Lake Cottagers Association to discuss local studies showing high E.coli and Total Coliform results for raw water samples in the lakes and nearby streams. As part of proposed Sec.34 Source Protection Plan review and Phase 2 Technical Rule changes, staff are planning to review local vulnerability scores associated with unique soil and drainage conditions around these lakes. The Lake Rosalind WHPA-E zone surrounds the lake and may result in changes to applicable pathogen threat policies within this area.

10. More from the Watershed

To learn more about our source protection region/area, visit our website at:

Saugeen, Grey Sauble, Northern Bruce Peninsula

In 2021 staff engaged with municipal staff, councils and landowners across the Region. Through council meetings, site visits, risk management related activities and public events, there were many opportunities to assess source protection plan implementation successes and challenges including policy effectiveness. This public engagement was key to completion of the proposed Sec.36 amendments to the local Source Protection Plan.

Support materials supplied by Conservation Ontario have resulted in increased engagement on social media platforms. Visit the link below to learn more:
https://conservationontario.ca/conservation-authorities/source-water-protection/

Fall Membership Newsletter 2021

Grey Sauble CONSERVATION

PROTECT. RESPECT. CONNECT.

GSCA Administrative Centre is Reopening to the Public

The GSCA office will be open again to the public starting on October 12, 2021. Hours of operation are from 8:30am – 4:30pm from Monday to Friday. COVID-19 self-screening will be required prior to entering the building and masks are mandatory. Meetings with our Planning staff will be by appointment only.

Operations Update

Washrooms are beginning to close, and garbage receptacles have been removed at some GSCA properties. Please plan your visits accordingly.

Grey Sauble Conservation FOUNDATION

The Grey Sauble Conservation Foundation

Due to COVID-19 restrictions, the annual Memorial Forest Commemorative Ceremony will be postponed until June 2022. More details about the ceremony will be provided in the new year.

The 5th Annual Earth Film Festival, which was to be held on October 8, 2021 at the Roxy Theatre in Owen Sound has been rescheduled. The new date for the festival is Thursday May 16, 2022 and will follow many Earth Week activities to be held in April. Read more here.

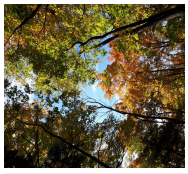
Plan your 2022 Tree Planting Project Now!

Forests, including those on private property, improve air quality, reduce household energy bills, provide habitat for wildlife, and reduce flooding.

It's never too early to start planning your tree planting project! Contact our forestry department to discuss tree planting for the 2022 season: forestry@greysauble.on.ca.

Stewardship

We have funding available for stewardship projects on your farm! Contact our Stewardship Technician for more information on funding for cover crops, livestock exclusion fencing, alternative water systems or barn eaves-troughing. stewardship@gsca.ca



Fall in Love with GSCA Lands

The temperatures are dropping and the leaves are starting to change. GSCA properties like Skinner's Bluff, Inglis Falls, West Rocks, Bognor Marsh, and Epping – John Muir Lookout are great spots to enjoy the beautiful fall colours.

Did you know that we are completing new Management Plans for Inglis Falls and Eugenia Falls? Stay informed and sign up for updates on our website: Inglis Falls, Eugenia Falls

We are launching our new Explore Brochure this fall, which will highlight 23 of GSCA's most popular adventure spots. Keep an eye on our website and social media for updates!

Drinking Water Source Protection

The next Source Protection Committee meeting is scheduled for Nov. 26, 2021.

Drinking Water Source Protection fall consultation activities related to the S. 36 Workplan have begun:

1. Public consultation as per legislation (August – September 2021)
2. Source Protection Committee (SPC) review and consideration of comments from all consultation activities (October – November 2021)
3. Final edits to documents and submission to the Ministry for approval (late fall 2021, early winter 2022)

Follow DWSP on Facebook for more information and tips to protect our drinking water.

Guided Hikes with the Friends of Hibou

Guided hike on the Interpretive Trail (Oct. 7 with Barry Lowin & Oct. 14 with Bob Knapp – 10am to noon): Meet at the pump house parking lot at the south end of Hibou Conservation Area and take a walk a walk along the Interpretive Trail. You'll hear a description of the geography and plant life, as well as how the trail came to be!

Forest Bathing (Oct. 8, 10am - noon): Experience a deeper connection with the forest on a slow, almost meditative walk with Marie Knapp along the shoreline loop (The Point Trail) across from the pump house parking lot at the south end of Hibou Conservation Area. You will be guided through a few experiences as you relate with the forest in new ways and experience reduced stress.

Please register here by noon the day before the hike you wish to join. Questions? Contact: friendsofhibou@rogers.com — Friends of Hibou Fall Newsletter

Inglis Falls Arboretum Alliance

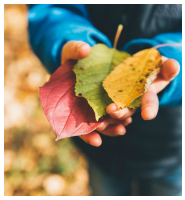
The Inglis Falls Arboretum fall sales are back!

A wide selection of native trees and shrubs will be available by donation from the Inglis Falls Arboretum Alliance. All proceeds benefit arboretum maintenance and educational programs.

When: Saturday mornings (9am-noon). September 18 - October 9, 2021.

Where: Inglis Falls Arboretum at the Grey Sauble Conservation Authority Administration Centre (237897 Inglis Falls Road, south of Owen Sound)

Interested in volunteering with the IFAA? Contact: ifaa@greysauble.on.ca



Environmental Education at Home!

Check out these online resources for fun, nature-based activities for your family:

Wreck this Nature Journal

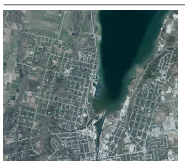
Create your own Natural Journal ... and then wreck it! This fun, all ages activity inspires creative and messy play.

Wreck this Nature Journal (lsrca.on.ca)

Eco-Footprint

Measure your footprint of personal impact on the planet

Eco-Footprint-Worksheet.pdf (conservationhamilton.ca)



Information Services

Southwestern Ontario Orthophotography (SWOOP) 2020 was flown and received in August. This new imagery improves mapping of base features such as watercourses, waterbodies, land cover and natural hazards. It allows us to calculate forest density and provides a better understanding of watershed health. We also use these air photos when reviewing planning and permit applications and to assess features on the properties that are owned by GSCA.

Follow us on Facebook, Instagram and Twitter!