

DRINKING WATER SOURCE PROTECTION

Trent Conservation Coalition Source Protection Region

2020 Annual Progress Report Ganaraska Source Protection Plan



“The first barrier to the contamination of drinking water involves protecting the sources of drinking water.”

Justice Dennis O’Connor



Prepared by: Trent Conservation Coalition Source Protection Region



MESSAGE FROM THE CHAIR OF THE TRENT CONSERVATION COALITION SOURCE PROTECTION COMMITTEE



On behalf of the Trent Conservation Coalition Source Protection Committee, it is my pleasure to introduce the 2020 Annual Progress Report on the implementation of the Trent and Ganaraska Source Protection Plans. We have now completed 6 years of implementation and it is encouraging to see our Source Protection Plans being implemented across our vast region.

The year 2020 will be remembered as the year that the COVID-19 pandemic changed so many aspects of our lives. Like the Walkerton water tragedy, the pandemic reminded us about how important it is to safeguard our health. Whenever we are faced with a crisis, we are also given an opportunity to emerge stronger and better equipped to deal with similar future perils. The

Source Protection Program in Ontario is a perfect example of how we can learn from adversity and reduce the risk of history repeating itself.

Obviously the pandemic presented challenges this year to the day to day operations of the program and to how meetings were conducted. I am pleased to report that our staff and committee adapted well to the new reality and we were able to carrying on, not only delivering the program but making key decisions on how to improve our policies. The committee is addressing some identified policy challenges and changes to the technical rules that will result in even more protection to sources of drinking water. Significant progress was made in this regard, in 2020.

As always, our main objective is to protect sources of municipal drinking water, which was identified as the first barrier in a multi-barrier approach to safer drinking water by the Walkerton Commission. Our Assessment Reports and Source Protection Plans are science based and as new science emerges our staff and committee will respond with appropriate amendments.

Several Source Protection Committee Chairs, including myself, have been encouraging the Ministry of Environment, Conservation and Parks to consider including more than just municipal drinking water systems in the Source Protection Program. Our stance has always been that everyone should have safe drinking water. I am happy to report that the Ministry is working on guidance for other systems including vulnerable populations, First Nations and even private systems.

Our Annual Report summarizes the achievement of the Risk Management Officials, the municipalities and the provincial ministries that are required to implement the many policies in our Source Protection Plan. Through this exercise the committee can judge the level of progress made and the effectiveness of the Source Protection Plan policies.

Each year, as we prepare these Annual Reports, there is an undeniable sense of pride reflected in the staff and the Source Protection Committee. I encourage you to read this progress report, in the hope that you will gain an understanding of the magnitude and importance of the work we do to protect sources of municipal drinking water.

Jim Hunt, Chair of the Trent Conservation Coalition Source Protection Committee.

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2020 ANNUAL PROGRESS REPORT

1. INTRODUCTION

The Trent Conservation Coalition Source Protection Region's 2020 Annual Progress Report for the Ganaraska Source Protection Plan (SPP) provides an update of the status of the implementation for six years of implementation from the effective date of January 1, 2015 to December 31, 2020.

This report is produced by the Trent Conservation Coalition (TCC) Source Protection Region (SPR) and Ganaraska Region Source Protection Authority (GRSPA) for the residents and businesses within the watershed, the Trent Conservation Coalition Source Protection Committee (SPC), municipalities and other local stakeholders. A separate Annual Progress Report for the Trent Source Protection Plan is also available.

The format of this report is based on broad categories, identified by the Ministry of the Environment, Conservation and Parks (MECP), to facilitate legislative reporting and tracking of progress made towards the implementation of the Ganaraska Source Protection Plan.

1.1 CLEAN WATER ACT

In response to the *Report of the Walkerton Inquiry (The Honourable Dennis R. O'Connor, 2002)* and its recommendation for a multi-barrier approach to providing safe drinking water, the Ontario government passed the *Clean Water Act, 2006* (the *Act*). The purpose of the *Act* is to protect sources of municipal drinking water through collaborative, watershed-based source protection plans that are locally developed and based on science.


1.2 SOURCE WATER PROTECTION PROGRAM

The *Clean Water Act* led to the creation of the Drinking Water Source Protection (DWSP) program which established 19 source protection regions and 38 source protection areas in Ontario. The DWSP program protects current and future municipal residential drinking water sources from contamination and overuse by developing collaborative watershed-based source protection plans. A source protection plan is the first barrier in a multi-barrier approach.

The Ganaraska Source Protection Plan includes mandatory and strategic policies that have been developed by the Trent Conservation Coalition Source Protection Committee in consultation with provincial ministries, municipalities, businesses, landowners and other stakeholders. The Plan identifies the party that is responsible for implementing a policy (implementing bodies). The implementing bodies are required by the *Clean Water Act* and its regulations to report on the implementation progress of policies in the Plan.

1.3 OUR WATERSHED: THE GANARASKA REGION SOURCE PROTECTION AUTHORITY

This Annual Progress Report outlines the progress made towards implementing Ganaraska Source Protection Plan.

	<p>Ganaraska Region Source Protection Authority Quick Facts</p> <ul style="list-style-type: none">• Part of the Trent Conservation Coalition Source Protection Region• Area: 930 km²• Number of Drinking Water Systems in the Ganaraska SPP: 6• Number of surface water systems in the Ganaraska SPP: 3• Number of groundwater systems in the Ganaraska SPP: 3• Population serviced by municipal residential drinking water systems: more than 45,000• Number of policies in the Ganaraska SPP: 137• Effective date of the Ganaraska SPP: January 1, 2015
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For a map of the Ganaraska Region Source Protection Authority, please see the map of the Trent Conservation Coalition Source Protection Region in Section 1.4.

To learn more about the Ganaraska Region watersheds, please read the Ganaraska Assessment Report and Ganaraska Source Protection Plan available at <http://trentsourceprotection.on.ca/resources/reports-legislation>.

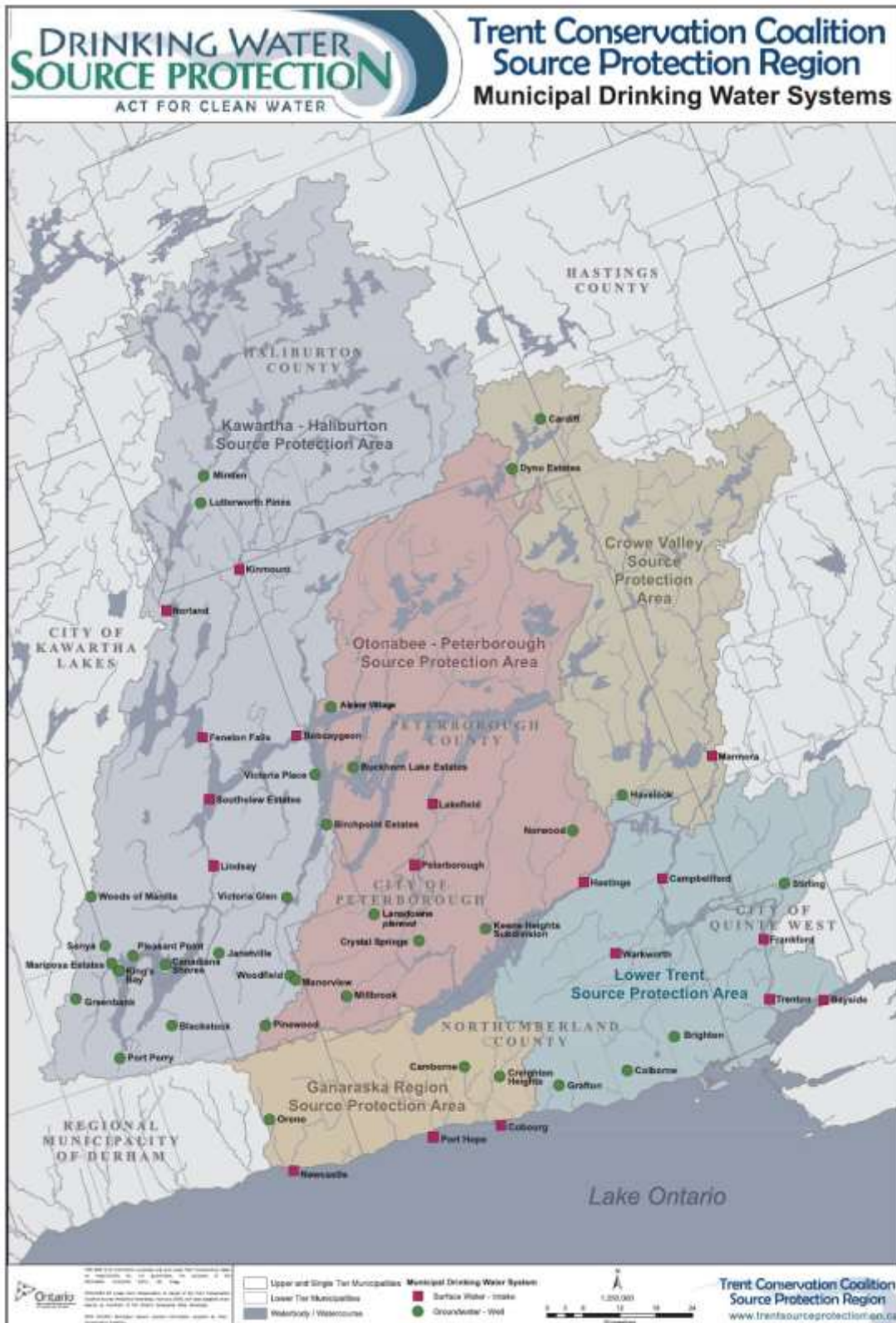
The Ganaraska Region Source Protection Area covers 930 km² of land that extends from the Wilmot Creek watershed in the west to the Cobourg Creek watershed in the east, and from the crest of the Oak Ridges Moraine and Rice Lake in the north to Lake Ontario in the south. The major watersheds include Wilmot Creek, Graham Creek, the Ganaraska River, Gages Creek and Cobourg Creek. In addition, four groups of smaller watersheds drain to either Lake Ontario or Rice Lake.

Drinking water systems in the Ganaraska Region Source Protection Area include municipal and non-municipal systems of various sizes that draw raw water from both groundwater and surface water sources. About 70% of the population in the Ganaraska Region Source Protection Area (over 45,000 people) obtain their drinking water from six municipal residential drinking water systems.

There are three existing municipal residential surface water supply systems in the Ganaraska Region Source Protection Area that obtain their water from surface water sources (all of them from Lake Ontario). These systems serve more than 40,000 people in the communities of Cobourg, Newcastle and Port Hope.

There are three existing municipal residential groundwater supply systems in the Ganaraska Region Source Protection Area that obtain their water from groundwater sources. These systems serve more than 2,700 people in the communities of Camborne, Creighton Heights and Orono. There are no municipal residential drinking water systems in the Ganaraska Region Source Protection Area that are considered to be Groundwater Under the Direct Influence (GUDI) of surface water.


1.4 OUR WATERSHED: LOCATION OF MUNICIPAL WELLS AND INTAKES SUBJECT TO THE CLEAN WATER ACT



2. MESSAGE FROM YOUR SOURCE PROTECTION COMMITTEE

A scoring system is used to assess the progress achieved from January 1, 2015 to December 31st, 2020 related to implementing policies in the Ganaraska Source Protection Plan.

The progress score on achieving source protection plan objectives in this reporting period is as follows:

	P: Progressing well / on target: Most of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.
	S: Satisfactory: Some of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.
	L: Limited progress made: A few source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.

The rationale for the Source Protection Committee to select the progressing well/on target score is as follows:

The Source Protection Committee arrived at this consensus based on a summary of information provided by the Ganaraska Region Source Protection Authority through the Annual Progress Report templates and a draft Annual Progress Report presented on March 25, 2021 to the Trent Conservation Coalition Source Protection Committee (SPC) meeting.

The SPC reviewed the sections in the report, including a review of the scoring proposed by the Source Protection Authority. The SPC then assessed the progress score by applying the criteria above. The committee settled on the progress score of progressing well/on target because implementation of the Ganaraska Source Protection Plan policies have been complete or are underway.

2.1 METHOD OF EVALUATION


Implementation of the Ganaraska Source Protection Plan is an important element of a multi-barrier approach to protecting municipal residential drinking water sources. To evaluate implementation effectiveness, a monitoring component is included for each policy. The Ministry of the Environment, Conservation and Parks (MECP) has identified a reporting process for the monitoring component that includes the preparation of an Annual Progress Report. In order to report on implementation progress to the MECP, the implementing bodies submit information on their progress through use of a standardized template to the Source Protection Authorities and the Region. This information is then used to develop this Annual Progress Report.

3. AT A GLANCE: PROGRESS ON SOURCE PROTECTION PLAN IMPLEMENTATION

3.1 SOURCE PROTECTION PLAN POLICIES

Across the Ganaraska Source Protection Plan, all the policies (100%) that address significant drinking water threats are in place, in progress, not applicable or the policy outcome has been evaluated and no further action required.

The overall progress score across the Ganaraska Source Protection Plan on achieving source protection plan objectives in this reporting period is as follows:

	P: Progressing well / on target: Most of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.
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3.2 MUNICIPAL PROGRESS: ADDRESSING RISKS ON THE GROUND

Municipalities and Approval Authorities under the *Planning Act* are the Implementing Body for 36 policies in the Ganaraska Source Protection Plan. These can be summarized into the following categories:

Category	Compliance Date Summary	# of policies	# Complete, In Progress or Not Applicable / No Information Received or Policy Outcome Evaluated and No further action required
Local Threats	1 year of plan taking effect	13	100%
Education & Outreach	2 years of the plan taking effect	6	100%
Sewage Connection and Transport Pathway By-Laws	8 years of the plan taking effect (5 Years OP + an additional 3 years for Zoning By-Law compliance)	2	100%
Standard Operating Procedures for Screening Permit Applications	8 years of the plan taking effect (5 Years OP + an additional 3 years for Zoning By-Law compliance)	2	100%
Update Official Plans to include Source Water Protection	5 years of the plan taking effect	2	100%
Emergency Management	1-2 years of plan taking effect	4	100%
Asset Management	2 years of the plan taking effect	1	100%
Climate Change Data Collection	When plan takes effect	1	100%
Land Acquisition	When plan takes effect	1	100%

Category	Compliance Date Summary	# of policies	# Complete, In Progress or Not Applicable / No Information Received or Policy Outcome Evaluated and No further action required
Road Salt Vulnerable Area Planning	8 years of the plan taking effect (5 Years OP + an additional 3 years for Zoning By-Law compliance)	1	100%
Sewage (Policy to address future septic systems under OBC proposed to be installed in the future) & Wastewater (Policy to address future wastewater collection system)	8 years of the plan taking effect (5 Years OP + an additional 3 years for Zoning By-Law compliance)	2	100%
Waste Disposal - Policy to Prohibit future waste disposal sites addressed by Prescribed Instruments	8 years of the plan taking effect (5 Years OP + an additional 3 years for Zoning By-Law compliance)	1	100%

All municipalities (100%) have ensured Education and Outreach policies are in place. Target audiences range from the general public, landowners in vulnerable area, and municipal staff. The Ganaraska Region Conservation Authority (GRCA) offered and provided support to member municipalities as they undertake education and outreach programming/services.

All municipalities (100%) have ensured amendments to the mandatory Sewage Connection and optional Transport Pathway By-Laws that conform to the SPP are in place, in progress, not applicable or the policy outcome has been evaluated and no further action required.

All municipalities (100%) report that Standard Operating Procedures to forward section 59 notices for future threats are in place or not applicable (Municipality of Port Hope).

All municipalities (100%) have ensured updates to Emergency Management Plans are in place and continually evaluated and updated as required. This includes consideration to the local threat related to the liquid hydrocarbon pipelines.

All municipalities (100%) report the Asset Management prioritization exercise for existing sewer mains and wastewater treatment plants is in place, or not applicable (Township of Hamilton).

All municipalities (100%) report implementation of the climate change policy is in place and continually improved. Many of the climate change programming and advancements are carried out in partnership with the GRCA.

All municipalities (100%) report implementation of the Land Acquisition policy is in place.


All municipalities (100%) report implementation of the Road Salt Vulnerable Area Planning is not applicable.

All municipalities (100%) report implementation of the sewage and wastewater polices are in place or in progress.

All municipalities (100%) report implementation of the Waste Disposal policy to prohibit future waste disposal sites is in place or in progress. Further work needs to be done to ensure municipalities have the necessary support to understand and implement this waste disposal policy to prohibit future waste disposal sites addressed by Prescribed Instruments

All municipalities (100%) within the Ganaraska Region SPA have established standard operating procedures to ensure day-to-day planning decisions conform to the Ganaraska SPP. Some fine tuning of the process is required to ensure all relevant applications are flagged and transport pathway notifications occur to ensure that planning advice is provided to manage or provide options to manage potential transport pathways.

The overall progress score on achieving source protection plan objectives in this reporting period is as follows:

	P: Progressing well / on target: Most of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.
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3.3 SEPTIC INSPECTIONS


While outside the scope of the *Clean Water Act*, the Ontario Building Code (OBC) requires that septic system threats be subject to a mandatory inspection program. Based on the location of individual septic systems, the responsibility to undertake these inspections may be that of the local Health Unit/department, municipality, or Conservation Authority depending on which body empowered as the principal authority (municipalities).

<i>Compliance Date Summary</i>		Compliance dates for existing septic inspections (those constructed by the following date) are set by the s. 1.10.2.4 (2)(a)(i)(A) of O. Reg. 315/10: BUILDING CODE to be five years after the date of publishing of the Assessment Report on the Environmental Bill of Rights. The EBR Registry Number is 012-2699 and was posted November 3, 2014 therefore the compliance date for existing septic's is November 3, 2019.
Existing	5 years from notice on EBR (November 3, 2019)	
Future	When the plan takes effect (January 1, 2015)	

Existing septic systems are only located in the Township of Hamilton. In 2016, 10 septic inspections were conducted. It was reported that 100% percent of existing septic threats have been inspected in accordance with OBC, of which 100% are functioning as required.

100% of municipalities and/or health unit/department have standard operating procedures to ensure OBC compliance and thus ensure that future septic systems do not become significant threats and are inspected.

The progress score on achieving source protection plan objectives in this reporting period is as follows:

	P: Progressing well / on target: Most of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.
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3.4 RISK MANAGEMENT PLANS

Risk Management Officials (RMOs) are the Implementing Body for 39 policies in the Ganaraska Source Protection Plan, and utilize the following tools which were established under Part IV of the *Act*, to manage threats: Prohibition (s.57); Risk Management Plans (s.58); and, Restricted Land Uses (s.59).

<i>Compliance Date Summary</i>		Existing threats have a 5 year compliance date. Future threat policies are effective when the plan takes effect. Although there are Risk Management Plans yet to complete, RMO's have until January 1, 2020 to complete them.
Existing	5 years from plan taking effect (January 1, 2020)	
Future	When the plan takes effect (January 1, 2015)	

# RMP's Established Complete	# Significant Threats Managed	# of Threats remaining to be managed	# Inspections	# Section 59 Notices
3	3	3	3	3


Three Risk Management Plans (RMPs) were established prior to January 1, 2020. Two of these plans manage two significant drinking water threats associated with marina fuel storage at two separate facilities. One RMP manages two agricultural threats (application of agricultural source material and application of pesticide) on one (1) property. The remaining three properties with potential need for an RMP around DNAPLs are being investigated.

The total number of inspections carried out by a Risk Management Officials / Inspectors in 2020 was 3. The compliance rate with the Risk Management Plans was 100%.

Risk Management Officials operating with the Ganaraska Region Source Protection Authority issued a total of 3 Section 59 notices for the period of January 1, 2015 to December 31, 2020. The processes to screen development applications is reported to be working well.

The contact details for the RMOs within the Ganaraska Region Source Protection Authority can found on the TCC website RMO webpage (<http://trentsourceprotection.on.ca/risk-management/contact-your-risk-management-official-inspector>).

The progress score on achieving source protection plan objectives in this reporting period is as follows:

	P: Progressing well / on target: Most of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.
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3.5 PROVINCIAL PROGRESS: ADDRESSING RISKS ON THE GROUND

Five provincial ministries reported on progress of 21 policies in the Ganaraska Source Protection Plan. Information pertaining to the Ganaraska SPP was extracted from the provincial reporting tool, but due to the scale of provincial reporting, data is available only for the entire TCC Region and not available specifically for the Ganaraska SPP.

<i>Compliance Date Summary</i>	
Existing	5 years from plan taking effect (January 1,
Future	When the plan takes effect (January 1, 2015)

The Ministries listed below either are in progress or have fully implemented all the TCC policies. The table below summarizes the progress achieved for policy implementation as reported by each ministry:

Implementing Body	Policy Implementation Complete (%)	Policy Implementation In Progress (%)	Policy Implementation Not in Progress
Ministry of Agriculture, Food, and Rural Affairs (OMAFRA)	100	0	0
Ministry of the Environment, Conservation and Parks (MECP)	90	10	0
Ministry of Natural Resources and Forestry (MNRF)	100	0	0
Ministry of Transportation (MTO)	60	40	0
Ministry of Municipal Affairs and Housing (MMAH)	100	0	0

For existing threats, Ontario ministries listed above 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 the Plans 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 to plan policies. Plan policies set out a timeline of 5 years to complete the review and make any necessary changes. Policy implementation categorized as “in progress” are related to actions that are strategic and ongoing such as research and review processes.

The Ministry of the Environment, Conservation and Parks reports that the percent progress made on prescribed instruments (PI) review is 100% for the following categories:


- Waste disposal sites – landfilling and storage
- Sewage Works/Wastewater
- Municipal Drinking Water Licenses & Drinking Water Works Permits

The Ontario Ministry of Agriculture, Food and Rural Affairs reports that the percent progress made on prescribed instruments (PI) review is 100% for the following categories:

- Nutrient Management Strategies (NMS)
- Non-Agricultural Source Materials (NASM) Plans

For future threats, Ministries reported that 100% are implemented, with standard operating procedures in place where applications are reviewed to ensure the proposed activities conform to our policies.

The progress score on achieving source protection plan objectives in this reporting period is as follows:

	P: Progressing well / on target: Most of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.
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3.6 AWARENESS AND CHANGES IN BEHAVIOUR: EDUCATION & OUTREACH

Ten (10) policies in the Ganaraska Source Protection Plan recognize the importance of using the education and outreach tool to change behavior to better protect sources of municipal drinking water.


<i>Compliance Date Summary</i>	
Existing / Future	5 years from when plan takes effect (January 1, 2020)

Signage was identified an effective tool for raising awareness of the Drinking Water Source Protection program and the importance of protecting sources of municipal drinking water. Road signage indicating vulnerable areas have been installed in all municipalities and the Municipality of Port Hope is considering signage in the future, although not a policy requirement. Signage is 100% complete.

Other education and outreach activities over the past six years included:

- Ongoing delivery of the Ganaraska Region Conservation Authority Clean Water-Healthy Land Financial Assistance Program;
- Conducted collaborative outreach through the East Central Farm Stewardship Collaborative to Risk Management Officials regarding funding opportunities for agricultural producers in vulnerable areas;
- Assisted municipalities in implementing Source Protection Municipal Implementation Fund (SPMIF) projects such as the Township of Hamilton acquired SPMIF funding to assist with septic inspections by offering free pump outs as part of the inspection.
- Creation of communication products by the Regional Municipality of Durham, the Town of Cobourg and the Township of Hamilton.
- Dissemination of general source water protection information through social media platforms.

The progress score on achieving source protection plan objectives in this reporting period is as follows:

	P: Progressing well / on target: Most of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.
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3.7 SOURCE WATER PROTECTION PLAN POLICIES: SUMMARY OF CHALLENGES

The Ganaraska Region Source Protection Authority reports no significant delays in policy implementation. However, policy wording can always be improved to assist in overall Ganaraska Source Protection Plan implementation.

3.8 SOURCE WATER QUALITY: MONITORING AND ACTIONS

In the TCC/GRSP source protection region/area, no issues have been identified in our local science-based assessment report(s) regarding the quality of the source(s) of municipal drinking water.

3.9 SCIENCE BASED ASSESSMENT REPORT: WORK PLANS

Since January 1, 2015, no additional scientific work was required in order to further protect sources of municipal residential drinking water sources. In the fall of 2018, a work plan was submitted to the Ministry, outlining activities proposed to update the Ganaraska Assessment Report and Ganaraska Source Protection Plan. These activities include:

- Updates based on changes to the Director's Technical Rules;
- Changes in scientific information; and,
- Lessons learned from policy implementation.

Work is underway to implement the work plan by 2023.

4. WANT MORE DETAIL?

Find out more information about Drinking Water Source Protection and what's happening in the Ganaraska Region Source Protection Area and the Trent Conservation Coalition Source Protection Region at trentsourceprotection.on.ca including details on:

- The *Clean Water Act*
- The Trent Conservation Coalition Source Protection Region
- The five The Trent Conservation Coalition Source Protection Areas
- Publications and resources e.g. the source protection plans and assessment reports
- Am I affected? / policy mapping tool

5. MORE FROM THE WATERSHED

To learn more about Source Protection in the Ganaraska Region Source Protection Authority, visit webpage at <http://www.grca.on.ca/source-water-protection/>

To learn more about the Trent Conservation Coalition Source Protection Region, visit our homepage at <http://www.trentsourceprotection.on.ca>.