



## II. A message from the Quinte Source Protection Committee

- 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 the source protection plan policies have been implemented and/or are progressing.**

The summarized objectives of the Quinte Region Source Protection Plan are:

- 1) to protect existing and future municipal drinking water sources and
- 2) to ensure that for every area identified in the Assessment Report, where an activity is, or would be, a significant drinking water threat, the activity ceases to be or never becomes a significant drinking water threat.

The Quinte Source Protection Committee arrived at evaluation scores based on a summary of information provided by Quinte Source Protection Authority staff in the Annual Progress Report Template and through materials presented at the March 25, 2021 Source Protection Committee meeting.

The Committee received regular updates from Quinte Source Protection Authority staff on policy implementation statuses since the Plan came into effect January 1, 2015.

The scoring system provided by the Ministry of the Environment, Conservation, and Parks in the Annual Progress Report Supplemental Form and Template assisted the Committee in evaluating the progress achieved related to the implementation of the Quinte Region Source Protection Plan. The Committee assessed progress made on implementation of all 63 policies by considering how many policies are in a stage of implementation versus how many policies have had no progress made towards implementation to date. This assessment was accomplished through a review of each of the sections in this fourth annual report and statistics provided by Quinte Source Protection Authority staff.

### III. Quinte Watershed

The Quinte Source Protection Area is located in Eastern Ontario and covers an area of approximately 6,200 square kilometers. The Region consists of the Moira River Watershed covering 2,880 square kilometres, the Napanee Region comprising the Salmon and Napanee River Watersheds with a combined area of 1,955 square kilometres, and the Prince Edward Region at 1,365 square kilometres. The Quinte watershed is home to 21 municipalities and approximately 117,000 residents with the majority living in the southern portions of the watershed.

Approximately half of the population of the Region lives in town and urban centres, such as the City of Belleville or the Village of Deloro, and the remaining 51 percent live in rural areas. The northern areas are rugged and form part of the Precambrian Shield covering approximately 50 percent of the Area. The Shield is largely forested with many wetlands and small lakes and is sparsely populated. To the south of the Shield, the area is underlain by Paleozoic limestone bedrock with large areas of thin soil cover as well as some isolated areas of significant soil depth along the south western boundary of the Moira River Watershed. In the Prince Edward Region, the landscape is dominated by thin soil over limestone bedrock, with some areas of topographic relief provided by glacial deposits and bedrock escarpments.

The Region has many significant surface water features which include the Napanee, Salmon, and Moira Rivers draining from the north into the Bay of Quinte (a connecting link to Lake Ontario) at the south. The Prince Edward Region is drained by a number of small drainage courses leading outward from inland towards either Lake Ontario or the Bay of Quinte. Surface water is an important resource in the Quinte Source Protection Area providing supply to seven municipal drinking water systems, namely Belleville, Point Anne, Deseronto, Napanee, Ameliasburgh, Picton, and Wellington.

Groundwater is also an important source of drinking water in the Quinte Source Protection Area providing supply to approximately 50 percent of the residents. Of these residents, the majority are on private wells, with approximately three percent on municipal groundwater systems. Groundwater is typically found in a shallow, unconfined fractured bedrock aquifer made up of either limestone or Precambrian rock. Well yields are typically low but sufficient for meeting residential demand. Four residential drinking water systems, Deloro, Madoc, Tweed, and Peats Point, draw from groundwater sources.

To develop the Quinte Region Source Protection Plan, a local committee with multiple stakeholders was created to develop the source protection plan. This committee includes members representing municipalities in the region, the agricultural community, industry, businesses, government and non-governmental organizations, as well as members of the public. The Source Protection Committee is supported by the Conservation Authority staff and Board of Directors, referred to as the 'Source Protection Authority' when undertaking source protection work. The Quinte Source Protection Authority is responsible for providing administrative and technical support to the committee, and overseeing the source protection process. To learn more, please read the Assessment Report and Source Protection Plan. <http://quintesourcewater.ca/web/resources/reports/>

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

### 1. Source Protection Plan Policies

Across the Quinte Source Protection Area one hundred (100) percent of the legally binding policies are implemented, in progress, and/or have been evaluated and determined to require no further action.

Municipalities, Provincial Ministries, Risk Management Officials, and the Source Protection Authority continue to work hard to ensure threats are managed according to the time-lines set out in the source protection plan.

As a result of policies being implemented across the Quinte Source Protection Area, over ninety-three (93) percent of existing significant drinking water threats on the landscape have been addressed (i.e. eliminated or managed).

The overall progress score on achieving source protection plan objectives across the Quinte Source Protection Area 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 well according to time-lines in the Quinte Region Source Protection Plan.**

## 2. Municipal Progress: Addressing Risks on the Ground

Eight (8) lower and single tier municipalities in the Quinte Source Protection Area have vulnerable areas where significant drinking water threat policies apply. Additionally, one (1) upper tier municipality acts as the Planning Act Approval Authority for its member lower tier municipalities.

Municipalities in the Quinte Source Protection Area are required to review and update their Official Plan to ensure it conforms to the local source protection plan. This review is required to occur during the first instance of an Official Plan cyclical review under the Planning Act, following the source protection plan coming into effect. All nine (9) municipalities have amended or are in the process of amending their Official Plan to conform to the source protection plans for our region.

All municipalities (100%) have ensured the Education and Outreach policy is in place by delegating this responsibility to the Source Protection Authority. The Source Protection Authority ensures materials are created, disseminated, and updated as required.

The overall progress score on achieving the Quinte Region Source Protection Plan objectives in this reporting period is as follows:

**P: Progressing Well/On Target**

### 3. Septic Inspections

When an on-site sewage system is functioning properly, contaminants from the system are greatly reduced or eliminated. The Ontario Building Code requires all septic systems within highly vulnerable areas be included in a Mandatory On-site Sewage System Inspection Program. Under the program inspections are required on a five (5) year cycle.

These inspections may be administered by the local Health Unit, municipality, or Conservation Authority. In the Quinte Source Protection Area, all municipalities with septic threats employ municipal staff to undertake these inspections.

The Quinte Region Source Protection Plan contains a supporting policy, directing municipalities to complete these inspections, as required by the Ontario Building Code, and to prioritize these inspections based on location and age of septic systems.

Municipalities in the Quinte Source Protection Area have completed the initial round of inspections and the majority were due to start the second round in or after 2020. Most inspections planned for 2020 were delayed to subsequent years due to COVID-19 restrictions. Municipalities reported one hundred (100) percent of on-site sewage systems (septic) have been inspected in accordance with the Ontario Building Code. Of the one hundred seventy-one (171) systems inspected, ninety-six (96) percent are functioning as designed. The remaining four (4) percent required maintenance work, e.g. pump out or tank replacement, and are reported to now be functioning as designed.

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

**P: Progressing Well/On Target**

## 4. Risk Management Plans

A risk management plan is a document that outlines the actions required to address an activity that has the potential to contaminate drinking water. These actions manage the risk associated with the activity so that all threats to drinking water are properly managed. A Risk Management Official (RMO) works with the person engaging in the threat activity to decide on the necessary components of the risk management plan. All municipalities in the Quinte Source Protection Area have delegated the responsibility of Risk Management Officials and Inspectors to Quinte Conservation. Risk Management Officials are the implementing body for thirty-three (33) of the policies in the Quinte Region Source Protection Plan and utilize prohibition, risk management plans, and restricted land uses, all tools under Part IV of the Clean Water Act, to manage existing and future significant drinking water threats.

In the previous calendar year, one (1) risk management plan was established in the Quinte Source Protection Area. Since the Quinte Region Source Protection Plan took effect in 2015, a total of seventy-two (72) risk management plans have been established. Due to COVID restrictions, no inspections were carried out by a Risk Management Official/Inspector for prohibited or regulated activities during the 2020 calendar year. Risk Management Officials are also responsible for reviewing building and planning applications in vulnerable areas, to ensure no new significant threats are created. Once there is confirmation no new threats will be created, the Risk Management Official issues a Section 59 clearance notice. In the previous calendar year, eighty-six (86) Section 59 notices were issued. Since the plan took effect, three hundred seventy-six (376) Section 59 notices have been issued. The process to screen development applications is reported to be working well for all municipalities (100%).

Although limited progress was made over the calendar year, over eighty-five (85) percent of all required risk management plans have been negotiated to date and thus 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 well according to time-lines in the Quinte Region Source Protection Plan.**

## 5. Provincial Progress: Addressing Risks on the Ground

Ontario ministries (e.g. Ministry of Transportation, and Ministry of the Environment, Conservation and Parks) 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 Quinte Region Source Protection 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 to plan policies.

Provincial ministries are identified as the implementing body in eight (8) provincial approval policies in the Plan to address existing activities that pose a significant risk to sources of drinking water. Policies in Quinte's plan set out a time-line of 1-3 years to complete the review and make any necessary changes. The ministries have reported full completion (100%) of the review of previously issued provincial approvals in the source protection region.

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

**P: Progressing Well/On Target**



## 6. Source Protection Awareness and Change in Behaviour

This year marked 20 years since the water supply in Walkerton, Ontario was contaminated with E. coli and Campylobacter jejuni bacteria, resulting in the death of 7 people and severe illness affecting over 2,000 people.

Since May 2000, the Provincial government, Municipalities, Conservation Authorities and Source Protection Committees throughout much of Ontario have done tremendous work to improve the quality of municipal drinking water by following the recommendations of the Walkerton Inquiry which was led by Justice Dennis O'Connor.

Staff at the Quinte Source Protection Area and the Trent Conservation Coalition felt it was important to acknowledge the hard work and integral parts our various partners play in the multi-barrier approach that has been adopted across much of the province to make municipal drinking water safe.

A webpage was created on the Quinte source water website highlighting the advances in the quality of drinking water and dispelling myths related to municipal drinking water systems. <http://quintesourcewater.ca/web/commemorating-walkerton-20-years-later/>. The webpage and logo were shared with source protection areas and regions, municipalities, and other partner agencies. Many municipalities in the Quinte Source Protection Area, like the City of Belleville, created webpages using the logo and shared similar messages:

“The Bay of Quinte provides a large supply of surface water. Ensuring safe, reliable drinking water starts with protecting the bay and continues at the treatment plant. Trust the Tap is an initiative spearheaded by a number of source protection authorities along with Conservation Ontario to raise awareness about advancements in municipal water treatment and delivery.”

This campaign has been very successful. Within a month of posting, the social media campaign had 25 engagements; over 900 people reached, and was seen 5831 times. The commemoration page had been visited 971 times, the drinking water myths infographic was in the top 10 downloads for the month, and there were 2870 unique visitors to our website. Thank you to all partners who participated in the campaign.

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

**P: Progressing Well/On Target**

## 7. Source Protection Plan Policies: Summary of Delays

2020 proved to be a challenging year to implement Part IV responsibilities. Due to COVID-19, site visits related to inspections and renegotiations were stopped. Risk Management Inspectors used drive-bys and phone calls to check in on some risk management plans but implementation and inspections were delayed significantly. The Quinte Risk Management Office is prepared to increase inspections and negotiations in the 2021 to make up for the lack of inspections that occurred in 2020.

Despite the challenges with on-site work, development applications did not slow and the number of Section 59 Clearances Notices issued has already surpassed last years' totals. No applications were denied due to prohibition, while one resulted in a new risk management plan being negotiated. The majority allowed development to proceed as proposed.

Some non-legally binding policies have not yet been implemented, or implementing bodies have reported 'limited progress' on their implementation status as resources were used to implement the legally-binding significant threat policies initially. Source Protection Authority staff will continue to work with these bodies to collect information and to support those who are working to implement these policies.

## 8. Source Water Quality: Monitoring and Actions

A contaminant is defined as a water quality issue when the contaminant is present at a level of concern or showing an upward trend, is the result from a human activity, and threatens the municipal drinking water source. The issue contributing area (ICA), as defined in the Quinte Region Source Protection Plan is an area of land or water within a vulnerable area where activities could contribute to the water quality issue(s). These activities are classified as significant threats to drinking water.

Issues were identified at the Village of Madoc's municipal drinking water system in Centre Hastings. These issues include E. coli, Total Coliform, and Organic Nitrogen. For the Village of Madoc wells this area is a 30 meter setback from watercourses and wetlands within the WHPA E and F. Due to the proximity of the wells to the northern neighbouring municipality, the Issues Contributing Area falls within the Municipality of Centre Hastings and the Municipality of Madoc Township. In response to these issues, the municipalities engaged in the following activities:

- Reported annually on the implementation of policies to address the issues to the Quinte Source Protection Authority.
- Monitored the issues through raw samples collected at the municipal drinking water system.
- Completed all septic inspections in the ICA, and any necessary upgrades/replacements.
- Completed Education and Outreach activities related to sewage threats and agricultural activities.
- Completed more than half the required risk management plans in the ICA.
- The Municipality of Centre Hastings has installed a new municipal well to replace one of the existing wells that experiences quality and quantity issues.

Raw water samples show Organic Nitrogen results are improving. From 2013-2018, only one (1) sample from each well showed an exceedance of Organic Nitrogen above the provincial operational guideline. E. coli and Total Coliform remain elevated in raw water results. Because these wells are both groundwater under the direct influence of surface water (GUDI), it is anticipated some level of these parameters will exist in the raw water samples. Additionally, as the new well is in a different aquifer, it is anticipated that results will be positively affected.

## 9. Science-based Assessment Reports: Work Plans

No work plans were required to be implemented for the Quinte Region Assessment Report.

## 10. More from the Watershed

For more information about Drinking Water Source Protection and what the Quinte Source Protection Authority has been doing to address threats and implement the source protection plan visit [www.quintesourcewater.ca](http://www.quintesourcewater.ca).

