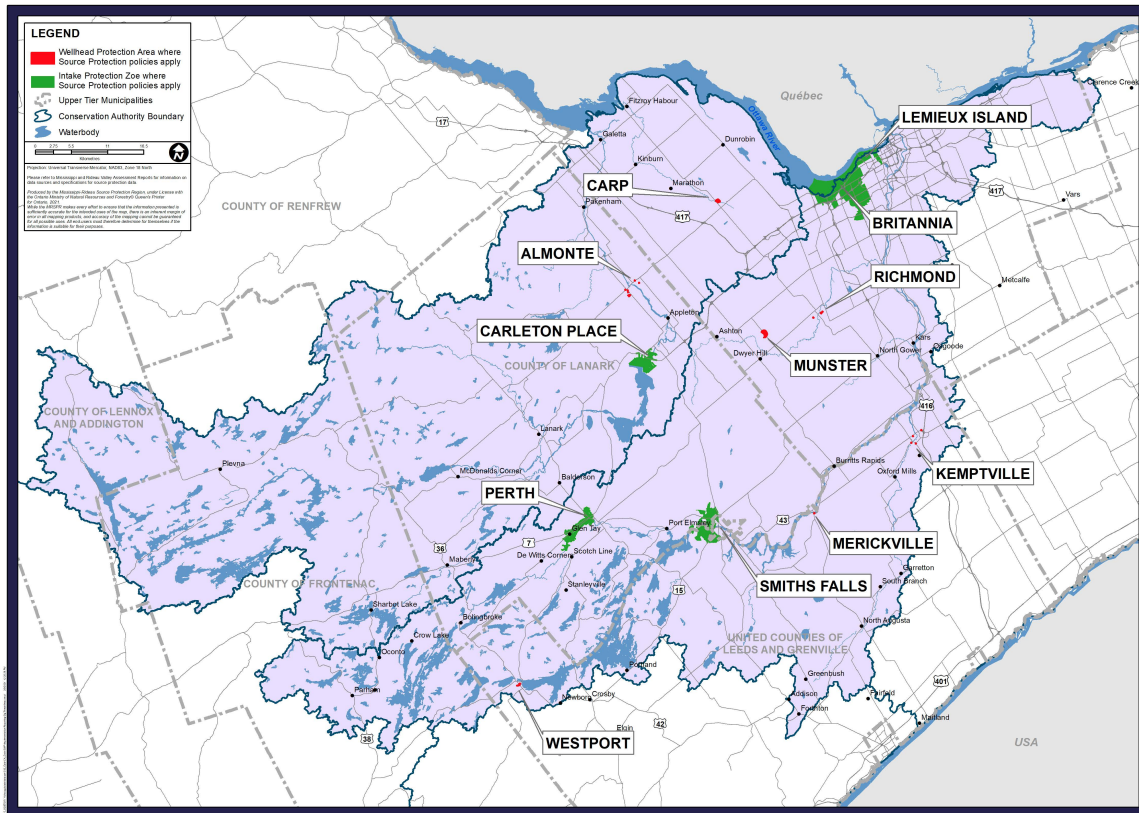


## Source Protection Annual Progress Report

### I. Introduction

As required by the Clean Water Act and its regulations, this report outlines the progress made in implementing the Mississippi-Rideau Source Protection Plan (MRSP) in 2022. Our Source Protection Zone Region is made up of the Mississippi Valley and the Rideau Valley Source Protection Areas. Source protection focuses on protecting sources of municipal drinking water such as lakes, rivers or underground aquifers that supply people with drinking water, from contamination and overuse. About three quarters of the population of the Mississippi-Rideau Region live in an area that is serviced by the 13 municipal drinking water systems that are the focus of the MRSP. This report highlights progress made towards implementing this plan, which contains policies to protect these 13 local drinking water sources, spread across two watersheds.



## 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.

Overall, the Source Protection Committee feels that implementation of Source Protection Plan policies is progressing well in the Mississippi-Rideau Region. The Source Protection Committee met on April 6, 2023 to discuss the Annual Progress Report, which was provided to them prior to the meeting with the Agenda package. At the meeting, the Committee reviewed each item in the report, and agreed on a grade where needed. Each section was presented and discussed as questions or comments arose. Following the review of each section, the Committee completed the overall progress score for the reporting period. Committee members also had an opportunity to provide written comments, if desired, to staff.

### III. Our Watershed

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

The Mississippi-Rideau Source Protection Region is made up of two Source Protection Areas: the Mississippi Valley Source Protection Area; made up of the lands that drain into the Mississippi River (called the Mississippi watershed) and the Rideau Valley Source Protection Area; made up of the lands that drain into the Rideau River (the Rideau watershed). All or part of 31 municipalities fall within the Mississippi-Rideau Source Protection Region. About three-quarters of the population of the Mississippi-Rideau Region live in an area that is serviced by the 13 municipal drinking water systems which are the focus of the Mississippi-Rideau Source Protection Plan. These 13 drinking water systems serve communities across the Region, and are divided into eight municipal wells (taking water from the ground), and five surface water systems (taking water from local rivers):

Groundwater Systems: Almonte, Munster, Carp, Richmond (King's Park), Kemptville, Richmond (W. Dev lands), Merrickville, and Westport.

Surface Water Systems: Carleton Place, Smiths Falls, Perth, Ottawa (Lemieux) and Ottawa (Brittania).

To develop the Source Protection Plan, a local committee with multiple stakeholders was created to oversee the source protection program and to guide its content. This committee includes members representing municipalities in the region, the agricultural community, industry, government and non-governmental organizations, as well as members of the public. It is supported by the two Conservation Authority's Board of Directors, which is referred to as the "Source Protection Authority", when completing source protection work. Source Protection focuses on protecting rivers, lakes and groundwater where they supply drinking water systems that serve villages, towns and cities. This work is going on locally in 19 source protection regions and areas across Ontario. Between 2006 and 2012, studies were completed to help find out where the water for these systems was most vulnerable, by mapping areas around water treatment plant intake pipes (Intake Protection Zones or IPZs) and around municipal wells (Wellhead Protection Areas or WHPAs) to show where water comes from, how quickly it gets there, and how vulnerable it is to contamination or overuse. These areas are the focus of where policies in the Source Protection Plan apply today, to protect the sources of the 13 drinking water systems. Policies include prohibiting a few high-risk activities, requirements for risk management plans, the use of existing or amended approval processes, and education and outreach to encourage voluntary good practices. Highly vulnerable aquifers (HVAs), where soil is thin or absent and underlying bedrock contains large cuts and gaps characterize 89% of the region. Moreover, approximately 13% of the region is characterized as Significant Groundwater Recharge Area, where there are gravel deposits or soil features that allow a significant amount of rain and snowmelt to move down into the groundwater. In these areas, there are policies encouraging the wise use of road salt, promoting best management practices through education and outreach, and policies aimed at managing waste disposal sites.

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

### 1. Source Protection Plan Policies and Addressing Significant Risks

#### **P: Progressing Well/On Target.**

There are 50 significant threat policies in the Mississippi-Rideau Source Protection Plan. These policies either prohibit or manage activities. 46 of the policies that address significant drinking water threats have been implemented (92%); 3 are still in progress (6%); and 1 of the significant threat policies is not applicable (2%). In 2022, there was a 2% change in significant threat policy implementation (1 policy). As a result of policies being continually implemented in our region, approximately 99% of existing significant drinking water threats on the landscape have been addressed (i.e., eliminated or managed). We are on track to address all 100% existing significant threats to our sources of drinking water.

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

### **P: Progressing Well/On Target**

In the Mississippi-Rideau Source Protection Region, 15 municipalities have vulnerable areas where significant drinking water threat policies are included in the SPP. Legally binding policies apply to portions of Wellhead Protection Areas or Intake Protection Zones. Municipalities work to ensure that their day-to-day planning decisions conform with the source protection plan policies. All municipalities in our source protection region have processes in place to ensure that their day-to-day decisions conform with our source protection plans. Municipalities regulate development through their powers under the Planning Act. Updating the Official Plan and Zoning By-Laws tools will help to ensure that decisions on planning matters are consistent with Source Protection Plan policies. In our Source Protection Region, municipalities are required to update their Official Plans either before, or during their next five-year review after January 1, 2015. Zoning By-Laws must be updated within three years of the Official Plan amendments. In the Mississippi-Rideau Region, all municipalities have completed their Official Plan amendments, and 13 have completed or are in the process of completing their Zoning amendments (two municipalities are upper tier and do not have Zoning By-Laws).

### 3. Septic Inspections

#### **P: Progressing Well/On Target**

When an on-site sewage system is functioning properly, contaminants from the system are greatly reduced or eliminated. A key part of protecting drinking water is therefore accomplished through the Mandatory On-Site Sewage System Maintenance Inspection Program. Through inspections, this program ensures that on-site sewage systems are functioning properly where they are considered a significant drinking water threat. 100% of on-site sewage systems identified as a significant threat have been inspected in the first 5 year cycle in accordance with the Ontario Building Code, and minor maintenance work was completed where required. 2021 began the second 5 year cycle and 1 of 2 mandatory on-site sewage systems inspections were completed. The remaining inspection was completed in 2022 and found the system to be functioning as required.

## 4. Risk Management Plans

### **S: Satisfactory**

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 drinking water is better protected. A Risk Management Official works with the person to decide on the components of the Risk Management Plan. There are currently five Risk Management Officials in the Mississippi-Rideau Region, four of these work at the Conservation Authorities and one works at the City of Ottawa. In the region, all municipalities except for the City of Ottawa have delegated risk management responsibilities to the Conservation Authorities. Since the SPP took effect, a total of 49 Risk Management Plans have been established in the Mississippi-Rideau Region with 1 Risk Management Plan being established this reporting period. In 2022, no inspections were carried out within the Region. There have been no cases of non-compliance with established Risk Management Plans observed to date. There are 6 parcels remaining that require risk management plans. For fuel and chemical handling or storage, Risk Management Plans look to address preventative maintenance, monitoring, spills response knowledge and information. For agricultural sites, they look to document existing best management practices, or work with persons to implement best management practices in a practical way.

## 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 three years to complete the review and make any necessary changes. The Ministries have completed this review for previously issued provincial approvals. Processes have been developed and implemented to screen new provincial approvals within vulnerable areas and are reported on annually. In the Mississippi-Rideau Region, there were 95 previously issued provincial approvals identified that required review. All of these have been reviewed, for conformity to our Source Protection Plan. Only 2 Prescribed Instruments were amended or replaced because of the conformity exercises as described above. In 2022, 8 wastewater and sewage works applications were screened in our Region for Source Water Protection Policies. Only 2 of the 8 were determined to be significant drinking water threats and were to be managed with a Prescribed Instrument.



## 6. Source Protection Awareness and Change in Behaviour

A total of 63 Drinking Water Protection Zone signs have been installed in the Mississippi-Rideau Source Protection Region along municipal and county roads to mark the 13 drinking water systems in the Source Protection Plan. A total of 9 Drinking Water Protection Zone signs have been installed in the Mississippi-Rideau Source Protection Region along provincial roads. These signs alert travelers to the vulnerable areas and some direct them to our website for more information. The signs are intended to encourage good stewardship practices and prompt spill reporting and response. They increase local knowledge of the wellhead protection areas and intake protection zones and can act to raise general awareness of the vulnerable areas by pointing travelers to the source protection region website.

A comprehensive education and outreach program, 'Living in the Zone', has been developed. This includes resources on the Source Protection Region website. There is a public mapping tool available on the website to help the public learn where vulnerable areas are and link them to policy information and regular email updates are provided to subscribers to our Mississippi-Rideau Source Protection Region. Social media campaigns are frequently posted by the Rideau Valley Conservation Authority to raise awareness on protecting drinking water.

In 2022, the Mississippi-Rideau Source Protection Region developed an education collection for the protection of Highly Vulnerable Aquifers. The collection includes an interactive StoryMap, action sheets highlighting best practices, a three-part animated video series and a thematic scientific bibliography.

In 2022, the Ministry of Environment, Conservation and Parks released the Best Practices for Source Water Protection to help individuals with private drinking water systems assess the risk/vulnerability of their drinking water source and inform them on how to properly protect this source of drinking water. Alongside the Best Practices the MECP provided funding for Source Protection Areas/Regions to provide advice and support to people with drinking water systems not included in a Source Protection Plan (SPP). The Mississippi-Rideau Source Protection Region initiated a pilot project to address concerns raised by local lake associations. These concerns were focused on waterfront property owners sourcing their drinking water from the lake through surface water intakes. The project was divided into two phases: Phase 1 was to characterize the lakes, survey residents, assess vulnerability and determine possible drinking water risks using the Best Practices guidance and Phase 2 is the education and outreach component based on the results of Phase 1. Phase 2 will include the production of 3 short videos, a social media campaign, updated webpage, possible new Source Protection Plan policies, workshops for landowners, establishment of a working group with to discuss private drinking water protection and more.

In 2022, the Mississippi-Rideau Source Protection Region transitioned the municipal annual reporting templates to an online format. Municipal representatives were provided with login privileges and access to the Electronic Annual Reporting platform to answer questions related to Source Protection Plan implementation and risk management (if applicable). This transition was an effort to streamline reporting and reduce inefficiencies. The first year went well, we received great feedback to improve the new reporting process and we will apply those changes in 2023.

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

Overall, policy implementation is Progressing Well in our region. Some policy tools are challenging to implement, and require significant time to build relationships with landowners, business operators, and other key individuals across the region. In particular, the policies that require negotiation of Risk Management Plans with individuals have been challenging to implement. Progress has been made to identify properties that require risk management plans, refine threat numbers and identify sites that do not require plans at this time. Some Risk Management Plans for existing activities are not yet complete, and staff are working hard to finish all required plans across the Region at identified properties, however additional time is required to complete this work. The risk management program is still new and managing activities in this way requires trust and relationship building between staff and affected landowners. There must be consideration for the type and extent of risk management measures asked for, as well as their feasibility for individuals to complete. Provincial funding previously offered assistance with implementing risk management programs. However, this funding was not renewed, resulting in additional pressures on our small municipalities to fund the Risk Management Office. Fortunately, we have had success leveraging existing incentive programs offered by our Conservation Authorities.

Risk management staff at the Conservation Authorities have worked to implement policies, and 49 risk management plans are in place. Over the last few years, staff developed a practical and straightforward approach to implement risk management plans, focusing on best management practices and spills response.

As of 2022, 6 parcels still require risk management. There have been some challenges with a few non-responsive landowners within the Source Protection Region which has proven to be difficult. The SPA has explored legal options and alternatives to address these conflicts.

For the outstanding agricultural Risk Management Plan, risk management staff have made progress in 2022 towards coming to an agreement. Staff will rely on existing incentive programs to help offset the costs of implementing Risk Management measures. For the outstanding 5 Fuel Oil Risk Management Plans, the City of Ottawa initiated a Fuel Oil Replacement Incentive Program. They will contribute funds towards replacing fuel oil with an alternative heat source, with a focus on green energy heat sources such as air source heat pumps.

## **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.

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

No work plans were required to be implemented for our assessment reports.

## 10. More from the Watershed

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

[www.mrsourcewater.ca](http://www.mrsourcewater.ca)

Feedback from stakeholders and partners is an important part of the Source Protection program. Municipalities in our Source Protection Region brought several points of view to the attention of Source Protection Staff during this reporting period. Guidance to assist with: municipal use of the application screening tool, municipal use of the highly vulnerable aquifer and significant groundwater recharge area mapping in practical way, implementing land-use planning policies, such as Zoning By-Laws and protecting communal, privately owned drinking water systems and well clusters. Feedback also suggested that technical studies be kept up to date to assist in determining appropriate policy updates, with suggested policy updates such as: formal inclusion of low impact development and consideration of evolving climate and changing circumstances such as by including rare events (ice storm, drought, flash floods and spread of contaminants).