DRINKING WATER SOURCE PROTECTION
DE L'EAU POTABLE À LA SOURCE

Raisin Region Conservation Authority
Office de protection de la nature de la région Raisin

South Nation Conservation
de la Nation Sud

Source Protection Plan

Raisin-South Nation Source Protection Region

Région de protection des sources de Raisin-Nation Sud

Plan de protection des sources

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Ontario

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Summary of Amendments

Important Notice

This document contains two Source Protection Plans for the following Source Protection Areas:

- Raisin Region Source Protection Area.
- South Nation Source Protection Area.

Policies apply to both Source Protection Areas unless otherwise stated.

Effective Date

The effective date for the Raisin Region Source Protection Plan and the South Nation Source Protection Plan is April 1, 2015, with amendments effective [Date to be added when amendments are approved]. As of this date, the policies in these plans have legal effect as provided by the *Ontario Clean Water Act, 2006*.

Accompanying Explanatory Document

The Explanatory Document accompanies this Source Protection Plan under separate cover. The document includes background information, considerations, and rationale for each policy.

Avis important

Ce document contient deux plans de protection des sources aux zones de protection des sources suivantes:

- Zone de protection des sources de la région Raisin et
- Zone de protection des sources de la Nation Sud.

Les politiques, intentions et justifications s'appliquent aux deux zones de protection des sources à moins d'avis contraire.

Date d'entrée en vigueur

La date d'entrée en vigueur du plan de protection des sources de la région Raisin et le plan de protection des sources de la Nation Sud est le 1er avril 2015, avec amendements en vigueur dès [la date sera ajoutée lorsque les amendements sont approuvés]. À partir de cette date, les politiques de ces plans auront une portée juridique dans le cadre de la *Loi sur l'eau saine de l'Ontario, 2006*.

Document explicatif d'accompagnement

Le document explicatif accompagnera ce plan de protection des sources sous pli séparé. Le document fournit des informations en matière de contexte, considérations et justifications pour chaque politique.

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Table of Contents

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1 Introduction

Importance of Source Protection

Drinking water comes from lakes, rivers, streams and underground sources (aquifers) located across the region. Drinking water sources can be easily contaminated and have a limited tolerance for stress. As a result, long-term problems can develop that are costly or even impossible to correct. In order to make sure we have enough clean water for drinking and other uses, we need to protect sources by managing the influences on them.

The goal of Source Protection is to ensure that drinking water sources are clean and safe before they are treated. Ultimately, this can save money related to water treatment and will help to protect the source for long-term use. The Source Protection Plan is part of a science-based, multi-barrier approach to providing clean water from source to tap in the Raisin-South Nation Source Protection Region.

The *Clean Water Act, 2006* provided the legislative framework for Source Protection in Ontario. Unlike other legislation, the *Clean Water Act, 2006* does not apply a standard set of policies across Ontario. Instead, the *Clean Water Act, 2006* requires local Source Protection Regions, through multi-stakeholder Committees created across Ontario, to develop a Source Protection Plan.

For the purpose of this Plan, the sources of drinking water are municipal surface water intakes and municipal ground water wells. In order to create the Source Protection Plan, the municipal drinking water sources were identified and their vulnerability was assessed. This information can be found in the Terms of Reference and Assessment Report documents.

Source Protection Region

The geographic area to which a Source Protection Plan applies is called a Source Protection Area. A Source Protection Area, for the purposes of the *Clean Water Act, 2006*, is established as the area over which a Conservation Authority has jurisdiction under the *Conservation Authorities Act, 1990*.

The Raisin Region Source Protection Area includes the jurisdiction of the Raisin Region Conservation Authority (RRCA) and additional watershed-based areas to the southwest (Hoasic Creek) and north (Rigaud River). The total area of the Raisin Region Source Protection Area is approximately 2,000 km².

The South Nation Source Protection Area includes the jurisdiction of South Nation Conservation (SNC) with the addition of the Town of Prescott and an additional watershed-based area to the north-east. The total area of the South Nation Source Protection Area is approximately 5,000 km².

The Raisin Region Source Protection Area combined with the South Nation Source Protection Area forms the Raisin-South Nation Source Protection Region. The Source Protection Areas and the Source Protection Region are shown on Map 1 (Appendix D).

Source Protection Authorities

The Ministry of the Environment, Conservation and Parks oversees the *Clean Water Act, 2006* provincially, but the Conservation Authorities of Ontario administer the program at the local level. Conservation Authorities were selected based on their local knowledge and experience protecting water resources. Conservation Authorities are referred to as Source Protection Authorities when undertaking the responsibilities under the *Clean Water Act, 2006*. The role of the Source Protection Authority is to establish the Source Protection Committee, submit deliverables to the Ministry of the Environment, Conservation and Parks for review and approval, and to report annually on policy implementation.

The Raisin Region Source Protection Authority and the South Nation Source Protection Authority jointly oversee the Source Protection program in the Raisin-South Nation Source Protection Region.

Source Protection Committee

Source Protection Committees were established for each of the 19 Source Protection Regions in Ontario. The committees are made up of municipal, public, and sector representatives appointed by the Source Protection Authority (SPA). Committee Chairs were appointed by the Minister of the Environment. The committees are responsible for preparing the Terms of Reference, Assessment Reports and Source Protection Plans to meet the requirements of the *Clean Water Act, 2006*. The Committees are required to follow the *Clean Water Act, 2006*, its regulations, Director's rules and guidance material created by the Province, in addition to working collaboratively with municipalities and Source Protection Authorities.

The Raisin-South Nation Source Protection Committee is made up of 15 members plus a chairperson. The 15-member committee represents the interests of the local municipalities, agricultural sector, commercial and industrial sectors as well as the general public. There are additional (non-voting) liaisons representing each Source Protection Authority, the Ministry of the Environment, Conservation and Parks, and the local Health Unit. The committee make-up is shown below.

SPC Chair			
Municipal Representatives (5)	**Sector Representatives (5)**	**General Public (5)**	**Non-Voting Liaisons (4)**
• City of Ottawa • City of Cornwall • Leeds & Grenville • Prescott-Russell • Stormont, Dundas & Glengarry	• Agriculture (3) • Aggregates (1) • Commercial / Industrial (1)	• Great River Network • Clean Water Committee • 3 citizens at-large	• Raisin Region SPA • South Nation SPA • Eastern Ontario Health Unit • Ministry of the Environment, Conservation and Parks

Terms of Reference

The Terms of Reference, one each per Source Protection Area, were submitted to the then Ministry of the Environment and Climate Change in May of 2009. The drinking water systems where Source Protection Plans apply are identified in the Terms of Reference and are listed below and shown on Map 2 (Appendix D). The list below has been amended to remove the Russell Township Embrun-Marionville well as the well has been decommissioned.

Source Protection Area	Municipality	Drinking Water System	Source Water
Raisin Region Source Protection Area	Township of South Stormont	Long Sault	Surface Water
	City of Cornwall	Cornwall	Surface Water
	Township of South Glengarry	Glen Walter	Surface Water
		Lancaster	Surface Water
		Redwood Estates	Groundwater
	Township of North Glengarry	Alexandria	Surface Water
		Glen Robertson	Groundwater
South Nation Source Protection Area	Town of Prescott	Prescott	Surface Water
	Township of Edwardsburgh / Cardinal	Cardinal	Surface Water
		Bennett Street, Spencerville	Groundwater
	Township of South Dundas	Morrisburg	Surface Water
	Township of North Dundas	Winchester	Groundwater
		Chesterville	Groundwater
	Township of South Stormont	Newington	Groundwater
	Township of North Stormont	Finch	Groundwater

Source Protection Area	Municipality	Drinking Water System	Source Water
		Crysler	Groundwater
		Moose Creek	Groundwater
	Russell Township (decommissioned)	Embrun-Marionville	Groundwater
	City of Ottawa	Greely	Groundwater
		Vars	Groundwater
	The Nation Municipality	Limoges	Groundwater
	Village of Casselman	Casselman	Surface Water
	City of Clarence-Rockland	Rockland	Surface Water
	Township of Alfred-Plantagenet	Wendover	Surface Water
		Lefaivre	Surface Water
	City of Hawkesbury	Hawkesbury	Surface Water

The Terms of Reference is available for viewing at the local Conservation Authority, or it may be downloaded over the internet from the following website: *http://www.yourdrinkingwater.ca*.

Assessment Report

The Assessment Reports, one each per Source Protection Area, were submitted to the then Ministry of the Environment and Climate Change in July of 2011. They were formally accepted by the Minister and posted to the Ontario Environmental Registry on January 23, 2012.

The Assessment Reports provide detailed technical analyses and mapping of the physical and human geography of the region. A water quantity threats assessment was completed using a tiered water budget process. Any existing water quality issues were reviewed and documented. Highly vulnerable aquifers, significant groundwater recharge areas, Wellhead Protection Areas, and Intake Protection Zones were delineated and evaluated with respect to susceptibility to contamination. Human activities in vulnerable areas that are or would be significant drinking water threats were also identified.

The Assessment Report identifies a provincial list of 22 prescribed activities that are considered drinking water threats. Source Protection Policies will address the following activities where they are (currently) or would be (in the future) significant threats:

1. The establishment, operation or maintenance of a waste disposal site (Part V of the *Environmental Protection Act, 1990*)
2. The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage
3. The application of agricultural source material to land
4. The storage of agricultural source material
5. The management of agricultural source material
6. The application of non-agricultural source material to land
7. The handling and storage of non-agricultural source material
8. The application of commercial fertilizer to land
9. The handling and storage of commercial fertilizer
10. The application of pesticide to land
11. The handling and storage of pesticide
12. The application of road salt
13. The handling and storage of road salt
14. The storage of snow
15. The handling and storage of fuel
16. The handling and storage of a dense non-aqueous phase liquid
17. The handling and storage of an organic solvent
18. The management of runoff that contains chemicals used in the de-icing of aircraft.
19. An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body
20. An activity that reduces the recharge of an aquifer
21. The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard
22. The establishment and operation of a liquid hydrocarbon pipeline

An update to the Assessment Reports forms part of the updates done under Section 36 of the Clean Water Act, undertaken in 2019 through 2022. The revised Assessment Reports, one each per Source Protection Area, were submitted to the Ministry of the Environment, Conservation, and Parks in (date to be added when amendment is approved). They were formally accepted by the Minister and posted to the Ontario Environmental Registry on (date to be added when amendment is approved).

The latest version of the Assessment Report is available for viewing at the local Conservation Authority, or it may be downloaded over the internet from the following website: *http://www.yourdrinkingwater.ca*.

Source Protection Planning Process

The Source Protection Committee established the Source Protection Policy Working Group to develop draft policies. The draft policies were brought back to the public Source Protection Committee meetings for review and approval.

The Working Group met with various industry experts and municipal staff to receive input related to policy development. The Working Group reviewed all the technical research and background documents for each threat and developed preliminary policy recommendations for the Source Protection Committee's consideration. Each Working Group meeting focused on developing policies for a particular sector and threat category.

The Working Group weighed each policy option against any possible alternatives, cost implications, and the availability of existing regulatory and non-regulatory tools and instruments. When evaluating different policy options, the group considered the following guiding principles:

- Effectiveness (would the policy effectively protect sources of drinking water)
- Appropriateness (would the policy be practical and avoid regulatory duplication)
- Fiscal Responsibility (would the policy be cost-effective and reasonable)

An update to the source protection policies forms part of the Section 36 updates undertaken in 2019 through 2023. Drafts for this amendment have been prepared by staff and approved by the Source Protection Committee for early engagement, pre-consultation, and stakeholder consultations.

Consultation

The Raisin-South Nation Source Protection Committee (SPC) and the Raisin Region and South Nation Source Protection Authorities have an ongoing commitment to public consultation. From the beginning, the Raisin-South Nation SPC has taken an open and interactive approach to consultation with the public by offering a variety of opportunities and tools for input. The SPC's communication with municipalities, stakeholders, landowners, First Nations groups and Source Protection partners exceeds requirements as legislated by the Regulation.

Throughout the process, an ongoing level of public feedback has been integrated into the development of Terms of Reference (TOR), the development of both Assessment Reports (AR), and ultimately into the development of this Source Protection Plan (SPP). A detailed summary of the methodology used for public consultation for the TOR, AR and SPP is presented in Appendix C.

2 Policy Development Process

The Source Protection Plans across Ontario protect drinking water sources and ensure that significant threat activities are addressed in vulnerable areas.

The Source Protection Committee was given various policy tools to address significant threat activities. These tools are described in detail in this section. The policies only apply to activities where they are or would be a significant threat.

Source Protection Plan Objectives

Ontario Regulation 287/07, Section 22 (1) lists the following two objectives for all Plans developed in Ontario:

> *"1. To protect existing and future drinking water sources in the source protection area.*
>
> *2. To ensure that, for every area identified in an assessment report as an area where an activity is or would be a significant drinking water threat,*
>
> > *i. the activity never becomes a significant drinking water threat, or*
> >
> > *ii. if the activity is occurring when the source protection plan takes effect, the activity ceases to be a significant drinking water threat. O. Reg. 246/10, s. 12."*

Description of Policy Tools

The goal of a Source Protection Plan is to manage or eliminate activities that are, or would become, significant drinking water threats. In most circumstances, landowners are able to manage significant threats to reduce the risk and allow the activity to continue.

The *Clean Water Act, 2006* provides several policy tools to accomplish this goal, including:

- Land use planning
- Prescribed Instruments
- Part IV Tools: prohibition, Risk Management Plans and restricted land uses
- Incentives
- Education and outreach
- Specify actions

Land Use Planning

Municipalities can use zoning by-laws and Official Plans to direct new development to areas where it would not pose a threat to drinking water. These planning documents can also be used to prohibit or restrict new development in highly vulnerable areas that would create new significant threats.

For example, Source Protection Policies could direct the Municipality to use land-use planning to ban new waste disposal sites near municipal wells, or chemical storage facilities upstream from a surface water intake. Land-use planning policies can be general (leaving the mechanism up to the Municipality) or name the specific Planning Act tools to be used (ex. zoning by-laws or site plan control).

Prescribed Instruments

A 'Prescribed Instrument' is a permit or other legal document issued by the Provincial government allowing an activity to take place. Specific instruments from the following Acts have been prescribed in the *Clean Water Act, 2006* for use in Source Protection planning:

- *Environmental Protection Act, 1990*
- *Ontario Water Resources Act, 1990*
- *Pesticides Act, 1990*
- *Safe Drinking Water Act, 2002*
- *Aggregate Resources Act, 1990*
- *Environmental Assessment Act, 1990*
- *Nutrient Management Act, 2002*

Prescribed Instruments generally contain provisions to protect human health and the environment. These provisions can be amended, if needed, to include additional considerations for protecting source water.

For example, the *Ontario Water Resources Act, 1990* requires most new developments to obtain an Environmental Compliance Approval for stormwater management. A policy could specify that the Ontario Ministry of the Environment, Conservation and Parks should review these approvals to ensure that they protect sources of drinking water. The issuer of the instrument is always the policy implementer.

Using existing instruments reduces the layers of regulation relating to the activity and works within a framework which is already familiar to the landowner. Other policy tools are used where the Source Protection Committee identified gaps in the existing regulation, challenges in implementation through existing instruments, or if there is no applicable instrument.

Prohibition (Section 57)

Prohibition under Part IV of the *Clean Water Act, 2002* is a very effective way to prevent new significant threats from developing in vulnerable areas. This tool is useful when dealing with serious threats which pose a high level of risk. Prohibition ultimately ensures that hazardous activities get located in less vulnerable areas in the watershed.

The Source Protection Committee used prohibition for some future activities which pose a high level of risk (such as handling and storage of an organic solvent). Moving forward, the businesses that use

these types of chemicals would either locate outside of the vulnerable area or use a less harmful product. Other tools, such as Risk Management Plans, were used to manage the existing instances of these types of threats.

Risk Management Plans (Section 58)

A Risk Management Plan is a site-specific document which is established between the Risk Management Official and the person engaged in the activity that poses a significant threat. One Risk Management Plan can be used to address all identified threats on the property and would only address the portion of the property where the threat is significant. Development of the Risk Management Plan will take current best management practices on the property into consideration.

If a landowner has a Prescribed Instrument which addresses the threat, the issuer of the instrument and the Risk Management Official will ensure it is protective enough. If it is, the landowner is not required to complete a Risk Management Plan.

Restricted Land Uses (Section 59)

The restricted land uses tool is a complimentary policy for prohibition or Risk Management Plan policies. It does not mean that land use is prohibited. Designating land uses in the vulnerable area for the purpose of Section 59 (restricted land uses) will ensure that future developments under the *Planning Act, 1990* or Building Code are reviewed by the Risk Management Official. This prevents the accidental approval of activities which do not conform with the Part IV policies (Risk Management Plans or prohibition) in the vulnerable area. The restricted land uses tool also ties Source Protection policies to applicable law under the Building Code.

The Section 59 tool is an effective way to identify land uses associated with drinking water threats at the front end of the planning process. If an applicant wishes to develop in the vulnerable area, he or she will discuss the development with the Risk Management Official to determine if a Risk Management Plan is required, or if the planned activities are permitted in the vulnerable area. In most cases the application can proceed after receiving a notice from the Risk Management Official.

Incentive Programs

Source Protection Committees can require that incentives be offered to landowners to address both existing and future significant threats on their property. Such programs can be used as a complimentary policy for all threats or address a specific threat.

Education and Outreach

Education and outreach are important components of Source Protection. The goal of an education/outreach policy is to raise public awareness of the objectives of Source Protection.

Education/outreach also compliments other policies and ensures that landowners understand why certain policies apply within their area. A strong education/outreach campaign will increase the effectiveness of other policy tools.

The responsibility for implementing education/outreach policies can be directed at any public body but can also be delegated or shared between organizations.

Specify Action

Specify action policies direct a public body or organization to take certain steps to implement a Source Protection Plan or achieve its objectives. For example, municipalities have the authority to enact by-laws for specific matters within their jurisdiction under the *Municipal Act, 2001*. A policy could direct the Municipality to create a mandatory connection by-law in areas where septic systems are a significant drinking water threat.

Specify action policies must identify the body or organization which will undertake the action and provide details on how this action may be undertaken.

Other Approaches

Other tools that could be included in a Source Protection Plan include stewardship programs, promotion of best management practices, pilot programs to investigate new approaches to protecting source water, and research initiatives.

Areas Where Policies Apply

The Assessment Reports document where the vulnerable areas are, and which activities are or would be significant threats. In the Raisin-South Nation Source Protection Region, the significant threats were limited to the most vulnerable areas around drinking water sources. For groundwater supplies, these areas are known as Wellhead Protection Areas. For surface water sources, they are known as Intake Protection Zones. Appendix D contains the maps of vulnerable areas in the Raisin-South Nation Source Protection Region.

Wellhead Protection Areas

Wellhead Protection Areas (WHPAs) were delineated for each municipal wellhead identified in the *Terms of Reference* and identify the location of the underground water source, the direction the water travels towards the well, and the time it takes to travel to the well. Each wellhead location has four distinct WHPAs:

- WHPA-A (100m radius around the well);
- WHPA-B (time of travel to the well ≤ two years) ;
- WHPA-C (time of travel to the well ≤ five years); and
- WHPA-D (time of travel to the well ≤ twenty-five years).

The susceptibility to contamination for each WHPA was scored and evaluated through a vulnerability assessment.

High scores (8 to 10) indicate that contaminants can quickly penetrate the soil and reach the aquifer; Lower scores (2 to 6) indicate that there may be some degree of natural protection overlying the aquifer (e.g., layers of clay which can restrict the vertical movement of contaminants towards the source water).

Intake Protection Zones

Intake Protection Zones (IPZs) were delineated for each municipal system identified in the *Terms of Reference*, drawing from a surface water source. Like WHPAs they identify the location of the source water, the direction the water travels towards the intake pipe, and the land area upstream where runoff could enter the intake. Each surface water system has distinct IPZs:

- IPZ-1 (a fixed radius of 200m or 1km depending on the source water);
- IPZ-2 (the area within which the time of travel to the intake is ≤ 2 hours); and,
  IPZ-3 (where applicable, the total contributing area where runoff could affect the source water).

The susceptibility to contamination for each IPZ was scored and evaluated through a vulnerability assessment. The scores were based on several criteria including: distance from the intake pipe; the time a contaminant takes to travel to the intake; the ratio of land to water within the zone; the depth of the intake pipe; and the assimilative capacity of the source water.

High scores (8 to 10) indicate that contaminants can quickly reach the intake and pose a high risk to the quality of the source water. Lower scores indicate that source water is less vulnerable to contamination.

Circumstances Where Policies Apply

The list of prescribed drinking water threats is accompanied by the Tables of drinking water threats circumstances. The Circumstances describe in which vulnerable areas and under which conditions the activities could be considered significant, moderate, or low threats to drinking water sources.

The Circumstances always relate to a vulnerable area (e.g., Wellhead Protection Area, Intake Protection Zone), the vulnerability score (e.g., 8 or higher) and often either a threshold volume or amount of contaminant involved (e.g., > 5000 L), and/or the method in which something is stored (e.g., above ground vs. below ground). The percentage of managed lands and livestock density is also considered for some agricultural activities. Significant threats are mostly restricted to WHPA and IPZ areas where the vulnerability score is 8 or higher.

The latest Assessment Report should be consulted to identify the official areas where policies apply.

General Provisions

Legal Effect

The *Clean Water Act, 2006* requires Municipalities, Local Boards or Source Protection Authorities to comply with any obligations imposed on it to address a significant drinking water threat.

Additionally, the Act requires that:

- decisions under the *Planning Act, 1990* and *Condominium Act, 1998* to conform to significant threat policies;
- decisions related to Prescribed Instruments to conform with significant threat policies; and that
- persons carrying out significant threat activities must conform with policies that use Part IV powers under the *Clean Water Act, 2006.*

The legal effect for the policies in this Plan are described in Appendix A – Director's List.

Default Timelines Established by the *Clean Water Act, 2006*

The *Clean Water Act, 2006* sets out fixed timelines for policy implementation in certain situations. The following tools must all conform to the significant drinking water threat policies of the Source Protection Plan immediately when the Plan takes effect:

- Future *Planning Act*, *1990* decisions;
- Future Prescribed Instrument decisions; and
- All part IV policies (restricted land uses, Risk Management Plans, and prohibition) applied to future activities.

It is important that municipalities have a Risk Management Official appointed before the Plan is approved. The Risk Management Official is responsible for establishing the timelines related to establishing Risk Management Plans for existing activities.

The timeline for implementation for all other policy tools is specified within the policy text.

Default Implementer for *Clean Water Act, 2006* Tools (Part IV)

Where a policy in the Source Protection Plan uses tools from Part IV of the *Clean Water Act, 2006* (restricted land uses, Risk Management Plans, and prohibition), the policy is implemented by the Risk Management Official.

The Municipality that has the authority to pass by-laws with respect to water production, treatment, and storage (under the *Municipal Act*, *2001*) is responsible for enforcement (Section 47, *Clean Water Act, 2006*) by appointing the Risk Management Official.

A Municipality may enter into an agreement to share this position with another Municipality or may delegate this responsibility to a Board of Health, Planning Board, or a Conservation Authority.

Default Implementer: *Planning Act, 1990* Tools

Where a policy in the Source Protection Plan is implemented through the *Planning Act*, *1990* and *Condominium Act, 1998*, including changes to the Official Plan and zoning by-laws, the implementing body is the Planning Approval Authority.

3 Policies to Address Specific Threats

Agriculture

Overview

Agricultural activities such as the storage and land-application of agricultural source material and processed organic waste (as defined under O. Reg. 347 under the Environmental Protection Act) have the potential to result in contaminants like nitrogen, phosphorus, and pathogens being introduced into drinking water sources. It only takes one animal to contaminate a drinking water source with pathogens. If these contaminants enter a water source they can cause human health issues.

Policy Intent

Policy AG-1 captures agricultural and limited non-agricultural activities where the activity is or would pose a significant risk to drinking water. A Risk Management Plan will be established with the person carrying out the activity to ensure that drinking water sources are protected. The Risk Management Plan will take into account any existing best management practices and will closely follow the principles of a Nutrient Management Plan or Environmental Farm Plan.

Where an activity has a prescribed instrument under the *Nutrient Management Act, 2002*, or under the *Environmental Protection Act, 1990* the person carrying out the activity, or their representative, may apply for an exemption from the Risk Management Plan requirement if it is demonstrated that the prescribed instrument contains conditions that manage activity where it is or would be a significant drinking water threat.

Policy AG-1

Existing and future agricultural activities subject to a Risk Management Plan

The following activities are designated for the purpose of Section 58 of the *Clean Water Act, 2006* (Risk Management Plan), where the activity is or could be a significant drinking water threat:

- the storage and application of agricultural source material (ASM);
- the handling, storage, and application of non-agricultural source material (NASM) Processed Organic Waste; or Waste Biomass;
- the use of land for livestock grazing/pasturing or outdoor confinement area/farm-animal yard; and
- the handling, storage, and application of commercial fertilizer.

The Risk Management Plan will be based upon the same principles as the requirements of a Nutrient Management Plan/Strategy or Environmental Farm Plan. The Risk Management Plan will include these conditions where appropriate:

- Requiring soil samples be done at least once every five years
- Based on soil samples, fertilizer and ASM shall be used at the appropriate rates
- Requiring mitigation measures, including structural or management alterations, to prevent runoff that could pose a risk to drinking water from entering surface water, such as a berm or the establishment of minimum vegetative buffers between application areas and surface water
- Requiring any other alterations needed to meet current best management practices (i.e. nutrient management standards for runoff)
- No ASM, NASM, or fertilizer shall be spread within the WHPA-A (100 m around the wellhead)
- Any other measure that protects drinking water or which are necessary to meet the test of "ceases to be a significant drinking water threat" to the satisfaction of the Risk Management Official
- Any other measures required to mitigate the potential risk to drinking water to the satisfaction of the Risk Management Official

If a person has a prescribed instrument under the *Nutrient Management Act* or Environmental Protection Act that regulates the activity or activities the person is or is proposing to be engaged in at the particular location, and the prescribed instrument contains conditions to ensure that it conforms to the significant threat policies above, the person may apply to the Risk Management Official for an

exemption from the Risk Management Plan requirement above. This is in accordance with section 61 of Regulation 287/07.

Note: Additional policies apply. See *MONITORING-1, GENERAL-5,* and *GENERAL-6.*

Chemicals

Overview

Chemicals like organic solvents and dense non-aqueous phase liquids pose an acute threat to sources of drinking water. These chemicals are used in a wide variety of sectors and have the potential to contaminate source water through spills and leaks. There have been real-world examples of these types of contaminants impairing drinking water sources within Ontario. Once these chemicals enter a source of drinking water they are extremely difficult to remove.

Policy Intent

Policy CHEM-1 describes the requirement for a Risk Management Plan for existing chemical threats. The Risk Management Plan will ensure compliance with any applicable best management practices and risk management measures.

Policy CHEM-2 prohibits the future handling and storage of specific chemicals, which are listed, in the prescribed threat circumstances. These chemicals should not be used within the most vulnerable areas. The vulnerable areas are generally not very large and businesses which typically use these chemicals should be located a safe distance from the vulnerable area. These businesses could also eliminate the significant risk by using a less harmful chemical.

Policy CHEM-1

Risk Management Plans for existing chemical threats

The following activities are designated for the purpose of Section 58 of the *Clean Water Act*, *2006* (Risk Management Plan) where the activity is an existing significant drinking water threat:

- the handling and storage of an organic solvent;
- the non-residential handling and storage of dense non-aqueous phase liquids (DNAPLs); and
- the management of runoff that contains chemicals used in the de-icing of aircraft.

The Risk Management Plan shall include:

- Up-to-date best management practices regarding handling and storage of organic solvents and DNAPLs and the management of runoff containing chemicals used in the de-icing of aircraft
- A spills response plan which includes procedures to contact the local drinking water plant operator
- Consideration of alternative products which would not cause a significant threat.

Risk Management Plans shall be prepared in accordance with the provisions listed in policy GENERAL-5.

This policy is not intended to capture incidental volumes of DNAPLs.

Note: Additional policies apply. See: *MONITORING-1, GENERAL-5,* and *GENERAL-6.*

Policy CHEM-2

Prohibition of future chemical threats

The following activities are designated for the purpose of Section 57 of the *Clean Water Act, 2006* (prohibition) where the activity would be a significant drinking water threat:

- the handling and storage of an organic solvent;
- the non-residential handling and storage of dense non-aqueous phase liquids (DNAPLs); and
- the management of runoff that contains chemicals used in the de-icing of aircraft.

This prohibition takes effect when the Source Protection Plan takes effect.

This policy is not intended to capture incidental volumes of DNAPLs.

Note: Additional policies apply. See: *MONITORING-1* and *GENERAL-6.*

Fuel

Overview

Fuel oil contains compounds that are known to impact human health, and some are known carcinogens. Fuel also contains petroleum hydrocarbons. When these compounds enter drinking water, they can negatively affect reproductive, respiratory, immune, and nervous system health.

Policy Intent

Policy FUEL-1 acknowledges that fuel oil (regulated under O. Reg. 213/01) may be a necessity for home heating. In these situations, a Risk Management Plan requires future and existing fuel tanks to meet certain minimum standards to mitigate the risk related to spills and leaks.

The Risk Management Plan requirements are similar to the requirements for most home insurance policies and existing Technical Safety and Standards Authority (TSSA) regulations. A provision was included to ensure annual inspections are completed by a certified Oil Burner Technician.

Policy FUEL-2 contains Risk Management Plan conditions which are tailored to liquid fuels (regulated under O. Reg. 217/01). This policy applies to existing and future private outlets, including farms. It also applies to existing licensed facilities (marinas, bulk facilities, cardlocks, etc.).

Policy FUEL-3 requires drinking water plant operators to review and amend existing permits for fuel storage in drinking water plants to ensure they are protective of drinking water sources.

Policy FUEL-4 prohibits the future storage and handling of liquid fuels (regulated under O. Reg. 217/01). These facilities generally store larger quantities of fuel and should be located outside of the most vulnerable areas in the future. This does not apply to private outlets and farms.

Policy FUEL-1

Existing and future fuel oil storage (O. Reg. 213/01) subject to a Risk Management Plan

The future and existing handling and storage of fuel as defined under Ontario Regulation 213/01 except for the handling and storage of fuel regulated under the *Safe Drinking Water Act, 2002* is designated for the purpose of Section 58 of the *Clean Water Act, 2006* (Risk Management Plan) where this activity is a significant drinking water threat.

The Risk Management Plan shall include the following risk management measures:

DESIGN & OPERATION STANDARDS

- Single-walled steel tanks with side-feed must be replaced immediately
- The replacement of single-walled steel tanks with bottom-feed when the tank is 15 years old (or earlier if a leak detection device indicates a leak)
- The replacement of double-bottom steel tanks with bottom-feed when the tank is 25 years old (or earlier if a leak detection device indicates a leak)
- The installation of oil lines in a manner that protects them from physical damage
- In all cases, new installations of fuel tanks shall meet the most up-to-date standards/technologies available (ex. more leak resistant than a single walled tank)
- Decommissioning of unused fuel oil tanks in accordance with Section 6.6 of the *Ontario Installation Code for Oil-Burning Equipment*.

TRAINING

- Information on procedures to be followed in the event of a spill for businesses and homeowners
- Education related to basic filling precautions and procedures for spills during handling (from the *Ontario Installation Code for Oil-Burning Equipment*)

If yearly inspections are required under Section 13 of the Ontario Installation Code for Oil-Burning Equipment the Risk Management Official/Inspector shall request evidence to show that yearly inspections are being done by a certified Oil Burner Technician.

Note: Additional policies apply. See: *MONITORING-1, GENERAL-5,* and *GENERAL-6*.

Policy FUEL-2

Risk Management Plan for liquid fuels (O. Reg. 217/01)

The following activities are designated for the purpose of Section 58 of the *Clean Water Act, 2006* (Risk Management Plan) where they are or could be a significant drinking water threat:

- the existing and future handling and storage of liquid fuels (under O. Reg. 217/01) at private outlets and farms; and
- the existing handling and storage of liquid fuels (under O. Reg. 217/01) at facilities other than private outlets and farms.

The Risk Management Plan shall include the following content:

- New installations for private outlets and farms must be above ground if possible and installed in accordance with O. Reg. 217/01 and the Liquid Fuels Handling Code
- Tanks and piping must be tested and monitored in accordance with Section 7 of the Liquid Fuels Handling Code
- Dispensing operations must comply with Section 6 of the Liquid Fuels Handling Code
- Detailed procedures to be followed in event of a spill
- Unused tanks must be decommissioned in accordance with the Liquid Fuels Handling Code

Note: Additional policies apply. See: *MONITORING-1, GENERAL-5* and *GENERAL-6*.

Policy FUEL-3

Future and existing fuel oil storage at a drinking water facility subject to a Prescribed Instrument

Where fuel handling and storage at a municipal drinking water system facility is identified as a significant drinking water threat regulated under the *Safe Drinking Water Act*, *2002* (SDWA), the approving director under Part V of the SDWA will require the owner to assess if the storage of fuel in any part of the drinking water system facility is a significant threat. To address any significant threats, alteration of the works/operating procedures shall include:

- Secondary containment
- Spill/leak detection and spill response procedures as per Condition 16 of the license
- Collision protection
- Protection of oil lines from physical damage

The Director will require the owner to apply to the Ministry within 90 days of receiving the Ministry's concurrence with the assessment, to amend the Drinking Water Works Permit/License to include the required alterations/operating procedures.

Instruments that exist before the day the plan takes effect must be reviewed and, if necessary, amended within three years.

Note: Additional policies apply. See: *MONITORING-3*.

Policy FUEL-4

Prohibition of future liquid fuel facilities (O. Reg. 217/01)

The future handling and storage of liquid fuel as defined in the *Technical Standards and Safety Act, 2000*, O. Reg. 217/01 (as amended*)* at facilities other than private outlets and farms is designated for the purpose of Section 57 of the *Clean Water Act, 2006* (prohibition) where it would be significant drinking water threat.

This prohibition takes effect when the Source Protection Plan takes effect.

Note: Additional policies apply. See: *MONITORING-1* and *GENERAL-6*.

Pesticides

Overview

Pesticides include herbicides, insecticides, and fungicides. These types of compounds can contain several harmful chemicals which can enter sources of drinking water. This policy is not intended to capture the use of small quantities of non-toxic products.

In Ontario there is a Cosmetic Pesticide Ban in effect for most properties except for low-risk pesticides that are on an allowable list. The active ingredient in these pesticides must meet specific criteria set out in Ontario Regulation 63/09. Some operations are exempt from this ban (including natural resource management and golf courses). These types of operations must have a license or safety accreditation to apply pesticides in Ontario.

Policy Intent

Policy PEST-1 captures all existing and future pesticide operations regulated under the *Pesticides Act, 1990*. Instruments issued under the *Pesticides Act, 1990* will be reviewed to ensure they protect drinking water sources.

Policy PEST-2 requires a Risk Management Plan for the application of pesticides which are not regulated by a prescribed instrument where they are a significant threat. This Risk Management Plan would include conditions similar to those found in the Ontario Pesticide Education Program. The Risk Management Officials will use discretion and may consult the Ontario List of Active Ingredients Authorized for Cosmetic Uses (Allowable List) to decide if a pesticide constitutes a significant threat and whether the Part IV policies apply.

Policy PEST-3 prohibits the storage and handling of pesticides at retail or commercial outlets. These types of operations are associated with larger volumes of stored pesticides.

Policy PEST-1

Existing and future application of pesticide to agricultural or commercial land subject to a Prescribed Instrument

Where the application of pesticides to agricultural or commercial land could be a significant threat, the Ministry of the Environment, Conservation and Parks shall ensure that permits issued under the *Pesticides Act, 1990* and O. Reg. 63/09 (as amended) contain conditions which ensure that pesticide application is not, or does not become, a significant drinking water threat.

It is recommended that the Ministry of the Environment and Climate Change ensure permits take drinking water sources into account when including conditions regarding emergency response measures and spill contingency plans.

Instruments that exist before the day the Plan takes effect must be reviewed and, if necessary, amended within three years.

Note: Additional policies apply. See: *MONITORING-3*.

Policy PEST-2

Existing and future application, storage, and handling of pesticide subject to a Risk Management Plan

The application, storage and handling of pesticides is designated for the purpose of Section 58 of the *Clean Water Act, 2006* (Risk Management Plan) where this activity could be a significant drinking water threat and is not subject to the requirements of the Cosmetic Pesticide Ban or *Pesticides Act, 1990.* This includes application of pesticides for public health & safety, natural resource management, golf courses and sports fields, and the existing commercial handling and storage of pesticides.

The Risk Management Plan should be based on appropriate environmental standards and/or the Ontario Pesticide Education Program or the Grower Pesticide Safety course and shall specify that only licensed/certified operators can apply pesticides.

Emergency response measures to address spills and an emergency response plan shall be updated to include identification of the vulnerable areas and contact information for the operator of the drinking water system.

Note: Additional policies apply. See: *MONITORING-1, GENERAL-5,* and *GENERAL-6*.

Policy PEST-3

Prohibition of future commercial storage and handling of pesticide

The future commercial storage and handling of pesticides is designated for the purpose of Section 57 of the *Clean Water Act, 2006* (prohibition) where this activity could be a significant drinking water threat.

This prohibition takes effect when the Source Protection Plan, or any plan amendment, as applicable, takes effect.

Note: Additional policies apply. See: *MONITORING-1* and *GENERAL-6*.

Salt

Overview

The road salt application rate has been steadily increasing in Ontario as roads and parking lots continue to develop across the landscape. Road salt can contaminate drinking water with sodium and/or chloride which is difficult to remove.

Currently, the Code of Practice for the Environmental Management of Road Salts recommends that a Salt Management Plan be completed by any road authority that uses more than 500 tonnes of road salt in a year or that applies salt in a vulnerable area.

The storage of road salt is classified into three different levels of exposure to precipitation and runoff, each of which may be a low, moderate, or significant threat to drinking water in different circumstances.

- Exposed storage means the storage of road salt in a manner that the road salt is exposed to precipitation or runoff from precipitation or snow melt.
- Partially Exposed storage means the storage of road salt in an enclosure such as outdoor bins, salt boxes, tarps or containers, 3-sided storage sheds or domes, or by any other means where it has the potential to be exposed to precipitation, or runoff from precipitation or snow melt.
- Not Exposed storage means the storage of road salt inside an area, facility or structure in which the storage or (un)loading are roofed, walled, with an impermeable floor, where it does not have the potential to be exposed to precipitation, or runoff from precipitation or snow melt.

Policy Intent

Policy SALT-1 recognizes that salt application is related to public health and safety. Municipalities are required to create/update a Salt Management Plan which outlines best management practices for salt application. The policy also suggests staff be trained (e.g., *Smart About Salt*) to ensure appropriate application of salt, especially in the vulnerable areas.

Policy SALT-2 requires a Risk Management Plan for certain quantities of existing partially exposed salt storages where they are a significant threat.

Policy SALT-3 prohibits the future storage of certain quantities or exposure levels of salt where it is a significant threat. Existing exposed storage of road salt is also prohibited where it is a significant threat. The threat circumstances will dictate if a significant drinking water threat exists. New salt storage facilities in vulnerable areas should be built according to industry best practices so that the salt storage is not exposed to precipitation or runoff.

Policy SALT-4 outlines recommendations for the Ministry of Transportation on all Provincial roadways in the vulnerable areas and supports the Ministry's ongoing pilot programs and mitigation technology research initiatives.

Policy SALT-5 requires education and outreach regarding salt application on private property.

Policy SALT-1

Municipal Salt Management Plans for future and existing application of road salt

Where the future and existing application of road salt could be a significant drinking water threat, the Municipality shall develop or review/update their Salt Management Plan.

The Salt Management Plan will include at a minimum:

- Management of sodium or chloride compounds used for dust suppression
- Minimizing application of road salt and/or use of alternative compounds
- Training for staff (such as the Smart About Salt program)
- Implementation of best management practices for salt application outlined by Environment and Climate Change Canada and the Transportation Association of Canada

The Salt Management Plan will be initiated within one year and completed within two years of the Source Protection Plan taking effect, after which it shall be reviewed annually to ensure it includes all current best management practices outlined by Environment and Climate Change Canada and the Transportation Association of Canada.

Note: Additional policies apply. See: *MONITORING-6.*

Policy SALT-2

Risk Management Plans for existing storage of road salt

Existing partially exposed storage and handling of greater than 500 kg of road salt is designated for the purpose of Section 58 of the *Clean Water Act, 2006* (Risk Management Plans) where it could be a significant threat. The Risk Management Plan shall include up-to-date best management practices regarding salt storage.

Note: Additional policies apply. See: *MONITORING-1, GENERAL-5* and *GENERAL-6*.

Policy SALT-3

Prohibition of future storage of road salt

Future partially exposed storage and handling of greater than 500 kg of road salt is designated for the purpose of Section 57 of the *Clean Water Act, 2006,* where it would be a significant drinking water threat, and is therefore prohibited.

Existing and future exposed storage and handling of greater than 20 kg of road salt is designated for the purpose of Section 57 of the *Clean Water Act, 2006,* where it would be a significant drinking water threat, and is therefore prohibited.

This prohibition takes effect when the Source Protection Plan or any plan amendment, as applicable, takes effect.

Note: Additional policies apply. See: *MONITORING-1* and *GENERAL-6*.

Policy SALT-4

Ministry of Transportation Salt Management Plans for the application of road salt

Where future/existing salt application would be a significant drinking water threat on Provincial network roadways, the Ministry of Transportation and their supporting de-icing contractors are strongly recommended to continue the proactive implementation of their Salt Management Plans and to continue the use of best management practices within the Wellhead Protection Areas and Intake Protection Zones.

The Ministry of Transportation is strongly recommended to continue their on-going investigation and implementation of innovative practices and new mitigative technologies regarding road salt application and the management of infiltration and runoff.

The Ministry of Transportation is strongly recommended to actively consider the creation of pilot projects to utilize new practices and mitigative technologies for road salt application or the management of runoff that could benefit drinking water sources in the Raisin-South Nation Source Protection Region.

Note: Additional policies apply. See: *MONITORING-7.*

Policy SALT-5

Salt application, handling, and storage education and outreach

The Raisin-South Nation Source Protection Authority and the local municipality shall develop and implement an ongoing education and outreach program for:

- the application of road salt on commercial/industrial properties; and,
- for the handling and storage of Road Salt at volumes between 100 kg and 500 kg, where these activities would be a significant drinking water threat.

This program may be based on the 'Smart About Salt' program and may include signage, best management practices, social media campaigns, and stickers for commercial salt boxes.

This program should be initiated within two years of the Plan, or any plan amendment, as applicable, taking effect.

Snow

Overview

Snow clearing collects contaminants from paved surfaces, which accumulate in snow piles over the winter. Melting snow piles then release chemicals which infiltrate into the ground and flow into rivers and streams.

The infiltration or discharge of snowmelt from the storage of snow on a site where the predominant land use is commercial or industrial by any means other than a storm water drainage system outfall is a drinking water threat.

A snow dump is a location used for the storage of snow from a different location during snow removal. Snow dumps often include snow from various land uses. Snow dumps that typically receive snow from areas where the predominant land use is industrial or commercial are a drinking water threat.

A Snow Disposal Facility is a snow meltwater management facility as part of a sewage work that requires approval under section 53 of the Ontario Water Resources Act (OWRA, 1990), or that is regulated by an Environmental Activity and Sector Registry (EASR).

Policy Intent

Policy SNOW-1 requires education and outreach regarding snow storage on commercial and industrial sites.

Policy SNOW-2 prohibits existing and future storage of snow at snow dumps.

Policies SNOW-3 and SNOW-4 require that existing and future approvals of Snow Disposal Facilities under the *Ontario Water Resources Act* ensure that they would not cause a significant drinking water threat through their stormwater drainage system outfall.

Policy SNOW-1

Education and Outreach for snow storage on industrial and commercial sites

The Raisin-South Nation Source Protection Authority and the local municipality shall develop and implement an ongoing education and outreach program for the storage of snow on a site where the land use is predominantly commercial or industrial, where it would be a significant drinking water threat.

This program should be initiated within two years of the Plan, or any plan amendment, as applicable, taking effect.

Policy SNOW-2

Prohibition of Snow Dumps

The existing and future storage of snow at a snow dump is designated for the purpose of section 57 of the Clean Water Act, where it is or would be a significant drinking water threat and is therefore prohibited.

This policy should be implemented immediately upon the Plan, or any plan amendment, as applicable, taking effect.

Policy SNOW-3

Prescribed Instrument for Existing Stormwater Drainage System Outfall that Serves a Snow Disposal Facility or Area

Existing approvals from the Ministry of the Environment, Conservation and Parks under the *Ontario Water Resources Act, 1990* for stormwater drainage system outfalls that serve a Snow Disposal Facility or Area should be reviewed and amended to ensure that the activity is not a significant drinking water threat or ceases to be a significant drinking water threat. At a minimum, the amended prescribed instrument should include reference to the applicable vulnerable area and appropriate risk management measures to protect the source of drinking water.

Prescribed instruments should be reviewed and amended within three years of the Source Protection Plan taking effect, or any plan amendment, as applicable.

Note: Additional policies apply. See: *MONITORING-3*.

Policy SNOW-4

Prohibition for Future Stormwater Drainage System Outfall that Serves a Snow Disposal Facility or Area

The Ministry of the Environment, Conservation and Parks, through approvals under Section 53 of the *Ontario Water Resources Act*, *1990*, shall not permit the establishment of a stormwater drainage system outfall that serves a Snow Disposal Facility or Area, where it would be a significant drinking water threat.

This policy should be implemented immediately upon the Plan, or any plan amendment, as applicable, taking effect.

Sewage

Overview

On-site sewage works and wastewater collection and treatment facilities are essential for residential and commercial development but can also pose a serious risk to sources of drinking water. There is potential for several sewage contaminants to enter source water including pathogens and dangerous chemicals.

Policy Intent

Policy SEWG-1 recognizes that exfiltration of sewage can occur from wastewater collection facilities associated parts. The policy requires an inspection of pipes and facilities in the vulnerable areas on a regular basis. It also requires new facilities in the area to be installed to a more protective standard; this will reduce the frequency of inspections.

Policy SEWG-2 requires a review of existing approvals for wastewater collection and treatment facilities and associated parts.

Policy SEWG-3 prohibits future wastewater treatment facilities in the most vulnerable areas. This policy contains an exemption for expansions and upgrades to wastewater treatment facilities which will result in full servicing to developments. Full servicing reduces the contamination risk related to private on-site sewage works.

Policy SEWG-4 references existing requirements under the Ontario Building Code for private on-site sewage works (septic systems and holding tanks). This policy also requires municipalities to prioritize connection to municipal services in these areas (where available) and consider deepening wells, where appropriate, to reduce the number of significant drinking water threats.

Policy SEWG-5 describes the planning requirements for future developments in the vulnerable areas in relation to proper review of on-site sewage works.

Policy SEWG-6 requires that approvals for large septic systems be reviewed to ensure they are protective of drinking water sources.

Policy SEWG-7 addresses stormwater management outfalls including infiltration facilities where they are a significant threat. The existing and future approvals are to be reviewed to ensure they are protective enough. This includes facilities covered by municipal CLI-ECAs. These conditions are suggested based on feedback from municipal water managers and current urban runoff research and peer-reviewed literature.

Policy SEWG-1A

Wastewater collection facilities maintenance program

The Municipality shall implement a wastewater collection facility inspection and maintenance program where force main and rising main portion of the sanitary sewers could be a significant threat. The program will include cleaning and camera inspection to identify areas of in/exfiltration. Exfiltration testing may be used where camera inspection is not feasible.

Existing wastewater collection facilities and associated parts, including sanitary sewers, sewage pumping stations, lift station wet wells, holding tanks or tunnels, shall be inspected no later than five years after the date the Plan takes effect; thereafter, they shall be inspected every five years after the most recent inspection has been completed. The Municipality shall also ensure that future applicants are aware of the requirements described below for new wastewater collection facilities and associated parts where they are a significant threat.

New or replacement force main and rising main sanitary sewers shall be inspected no later than ten years after the date the Plan takes effect; thereafter, they shall be inspected every ten years after the most recent inspection has been completed.

Note: Additional policies apply. See: *MONITORING-5.*

Policy SEWG-1B

Wastewater collection facilities subject to Prescribed Instrument

Where new or replacement force main and rising main sanitary sewers and associated parts would be a significant drinking water threat, the Ministry of the Environment, Conservation and Parks shall ensure that the Prescribed Instrument (Environmental Compliance Approval required under the *Ontario Water Resources Act, 1990*) includes appropriate terms and conditions to manage the threat so that it does not become significant. Where the activity is associated with low-risk systems that qualify for Consolidated Linear Infrastructure preauthorization, the municipality shall consult with the Source Protection Authority to ensure the works consider sources of drinking water.

Where the Director considers it appropriate, terms and conditions will require that new or replacement wastewater collection facilities be constructed of watermain quality pipe and pressure tested according to the appropriate Ontario Provincial Standard.

This policy takes effect when the Source Protection Plan, or any plan amendment, as applicable, takes effect.

Note: Additional policies apply. See: *MONITORING-3.*

Policy SEWG-2

Existing wastewater treatment facilities, sewer overflows, and industrial effluent discharges

Existing Approvals from the Ministry of the Environment, Conservation and Parks under the *Ontario Water Resources Act, 1990* (as amended) for wastewater collection and treatment facilities and associated parts, including:

- Wastewater Treatment Facilities and Associated Parts;
- Outfall of a Combined Sewer Overflow (CSO), or a Sanitary Sewer Overflow (SSO) from a Manhole or Wet Well; and
- Industrial Effluent Discharges

shall be reviewed to ensure they contain conditions to protect sources of drinking water where they would be a significant drinking water threat. If the instrument does not meet these requirements, the Ministry of the Environment, Conservation and Parks (MECP) shall amend it to include additional terms and conditions to manage the threat.

Where the activity is associated with low-risk systems that qualify for Consolidated Linear Infrastructure preauthorization, the municipality shall consult with the Source Protection Authority to ensure the works consider sources of drinking water.

Instruments that exist before the day the plan takes effect must be reviewed and, if necessary, amended within three years.

These policies take effect when the Source Protection Plan, or any plan amendment, as applicable, takes effect.

Note: Additional policies apply. See: *MONITORING-3*.

Policy SEWG-3

Prohibition of future wastewater treatment facilities, sewer overflow, and industrial effluent discharges

The Ministry of the Environment, Conservation and Parks shall ensure that the following activities regulated under the *Ontario Water Resources Act, 1990* (as amended) shall not be established where they could be a significant drinking water threat:

- Wastewater Treatment Facilities and Associated Parts;
- Outfall of a Combined Sewer Overflow (CSO), or a Sanitary Sewer Overflow (SSO) from a Manhole or Wet Well; and
- Industrial Effluent Discharges.

The aforementioned activities are exempt from this prohibition if:

- The new wastewater treatment facility will replace an existing wastewater treatment facility; or
- The expansion to existing municipal wastewater treatment facilities will provide full services to a new or existing development which is partially serviced or a development where on-site septic systems are failing.

Accordingly, decisions relating to Prescribed Instruments (Environmental Compliance Approvals) must conform with this policy. In addition, decisions made by planning authorities under the *Planning Act, 1990* must conform with this policy.

This prohibition takes effect when the Source Protection Plan, or any plan amendment, as applicable, takes effect.

Note: Additional policies apply. See: *MONITORING-2* and *MONITORING-3.*

Policy SEWG-4

Existing and future on-site sewage works (septic systems and holding tanks)

a. When the Source Protection Plan takes effect, the Municipality shall manage existing and future septic systems and septic system holding tanks where they would be a significant drinking water threat through the *Ontario Building Code Act, 1992* and Ontario Regulation 315/10 (as amended) in accordance with the On-Site Sewage System Maintenance Inspections Program (MMAH, 2011, as updated).

   The Municipality shall also ensure that existing septic systems and septic system holding tanks are decommissioned where inspectors determine the need for replacement or when connecting to municipal services. This would require the tank to be pumped out and collapsed/backfilled. The leaching bed can degrade naturally.

b. Where existing or future septic systems or septic system holding tanks are or would be a significant threat (including large septic systems >10,000 L/day) the Municipality shall, within one year of the Plan taking effect, require connection to municipal sewer services (capacity permitting) by passing a Mandatory Connection By-law (under the authority of the *Municipal Act, 2001*) where services are available at the property line in the following situations:

   - Failure of a Phase II inspection;
   - Principal Authority deems the existing system inadequate to service a proposed redevelopment/renovation; or
   - For new development on existing vacant lots of record.

   The Municipality shall also explore the potential of municipal servicing within the significant threat areas which currently have private services.

c. The City of Ottawa explored the opportunity to deepen the Shadow Ridge Municipal Well to the Nepean aquifer to reduce the significant threats related to septic systems and septic system holding tanks in the Village of Greely and plans to move forward with drilling a new deeper well.

Note: Additional policies apply. See: *MONITORING-3 and MONITORING-5*.

Policy SEWG-5

Planning requirements for future and proposed on-site sewage

For development of proposed lots or for any future development of properties with septic systems and/or septic system holding tanks that could be a significant drinking water threat, the responsible planning authority shall:

- If relevant, require a lot grading plan to be prepared and submitted
- Ensure that the review process for future development and/or lot creation (especially lots less than 1 hectare) considers the protection of municipal source water (e.g., the lot size for any proposed development that would include a small on-site sewage works shall be based on the Ministry of the Environment, Conservation and Parks' Guidelines for Individual On-site Sewage Systems). The hydro-geological assessment to determine appropriate development density shall be conducted by a professional licensed to carry out that work (P. Geo. or P. Eng. With training in hydrogeology)

This policy takes effect when the Source Protection Plan, or any plan amendment, as applicable, takes effect.

Note: Additional policies apply. See: *MONITORING-2*.

Policy SEWG-6

Large (>10000 L/Day) on-site sewage works

Where existing and future large (>10000 L/day) on-site septic systems and septic system holding tanks are, or would be, a significant drinking water threat, the Ministry of the Environment, Conservation and Parks shall ensure that the Environmental Compliance Approval under the *Ontario Water Resources Act, 1990* (as amended) includes appropriate terms and conditions to ensure that it ceases to be, or never becomes, a significant drinking water threat.

Instruments that exist before the day the Plan takes effect must be reviewed and, if necessary, amended within three years.

This policy takes effect when the Source Protection Plan, or any plan amendment, as applicable, takes effect.

Note: Additional policies apply. See: *MONITORING-3*.

Policy SEWG-7

Existing and future discharge from storm water management facilities

a. Approvals from the Ministry of the Environment, Conservation and Parks under the *Ontario Water Resources Act, 1990*, for existing and future Storm Water Management Facilities and Drainage Systems, including an outfall from a Storm Water Management Facility or a Storm Water Infiltration Facility where they would be a significant drinking water threat, shall be reviewed to ensure they contain conditions to protect sources of drinking water.

   Where the activity is associated with low-risk systems that qualify for Consolidated Linear Infrastructure preauthorization, the municipality shall consult with the Source Protection Authority to ensure the works consider sources of drinking water.

   Where an existing instrument does not meet these requirements, the Ministry of the Environment, Conservation and Parks shall amend it to include additional terms and conditions to manage the threat.

   It is recommended that approval conditions include:

- All future facilities should be built to Enhanced Level Protection (as described in the Stormwater Management Planning and Design Manual, Ministry of the Environment, Conservation and Parks, 2003, as amended).
- Addition of water quality criteria monitoring for chemicals and contaminants associated with the upstream development in addition to regular total suspended solids monitoring requirements to help develop a baseline for effluent quality and identify spikes in contaminants for future investigation.
- Ensure existing ponds are inspected yearly, and prioritize upgrades/retrofits to ponds/systems in vulnerable areas are prioritized; requirements should be included in the Operation and Maintenance manual to protect drinking water sources.
- Sediment volumes should be measured yearly and provided to the Ministry of the Environment, Conservation and Parks to ensure compliance.
- Naturalization around ponds to act as spill buffers.
- Contain a contingency plan for catastrophic events (>100-year flood) and emergency response.

b. Instruments that exist before the day the Plan takes effect must be reviewed and, if necessary, amended within three years.

These policies take effect when the Source Protection Plan takes effect.

Note: Additional policies apply. See: *MONITORING-2* and *MONITORING-3.*

Waste Disposal Sites

Overview

Waste sites undergo thorough reviews to ensure they are located in the most appropriate, and least vulnerable, areas. Future waste sites will not be permitted where they would pose a significant threat to drinking water. Prescribed Instruments for existing sites will be reviewed to ensure that they are operating in a manner that protects drinking water sources. Some waste disposal sites (ex. Polychlorinated Biphenyl (PCB) storage) are not regulated through a Prescribed Instrument. These sites are addressed in a separate policy.

Policy Intent

Policy WASTE 1 describes the modern operational, design, monitoring, reporting, and training requirements for existing waste sites where they are a significant threat.

Policy WASTE-2 refers to the prohibition of future waste sites (note: this does not include bio-solids regulated under the *Nutrient Management Act, 2002*).

Policy WASTE-3 requires a Risk Management Plan for existing waste sites which do not require a Prescribed Instrument. This policy does not apply to waste regulated by the Ministry of the Environment, Conservation and Parks through other means such as Director's Instructions, the waste generation reporting system, or waste manifest system. For these types of waste, best management practices will be promoted through education policy GENERAL-1 outlined in Section 3.8.

Policy WASTE-4 addresses prohibition of future waste sites through Section 57 of the *Clean Water Act, 2006*. This gives some support to the land-use planning prohibition in WASTE-2. This policy does not apply to waste regulated by the Ministry of the Environment, Conservation and Parks through other means such as Director's Instructions, the waste generation reporting system, or waste manifest system. For these types of waste, best management practices will be promoted through education policy GENERAL-1 outlined in Section 3.8.

Policy WASTE-1

Existing Environmental Compliance Approvals for waste sites

Where an existing waste disposal site is a significant drinking water threat, the Ministry of the Environment, Conservation and Parks shall ensure that the Approvals (under the *Environmental Protection Act, 1990* or *Ontario Water Resources Act, 1990*) include conditions and reporting requirements to manage the risk so that it ceases to be a significant threat.

If the Environmental Compliance Approval is not sufficient to manage the risk, the Ministry of the Environment, Conservation and Parks shall amend it to include additional terms and conditions. It is recommended that the following conditions be included:

- Operations manuals should be reviewed to ensure they have appropriate contingencies and monitoring requirements;
- Setbacks should be increased from wellheads and intake zones, as appropriate;
- Requirements should be added regarding closure and abandonment of waste sites to ensure they do not pose a risk to drinking water sources;
- Protective conditions should be added for groundwater and surface water during spreading of hauled sewage; and
- Conditions relating to maintenance of mine tailings storage ponds and closure plans for these ponds to ensure sources of drinking water are protected.

Instruments that exist before the day the Plan takes effect must be reviewed and, if necessary, amended within three years.

Note: Additional policies apply. See: *MONITORING-3*.

Policy WASTE-2

Prohibition of future waste sites

The future establishment of a waste disposal site shall be prohibited where it is a significant drinking water threat.

Accordingly, decisions relating to Prescribed Instruments (Environmental Compliance Approvals) must conform with this policy. In addition, decisions made by planning authorities under the *Planning Act, 1990* must conform with this policy.

This policy does not apply to waste that is registered with the Ministry of the Environment, Conservation and Parks waste generation reporting system, or waste that is approved to be

transported off-site using the Ministry of the Environment, Conservation and Parks manifest process or waste that is subject to Director's Instructions.

This policy takes effect when the Source Protection Plan takes effect.

Note: Additional policies apply. See: *MONITORING-2* and *MONITORING-3*.

Policy WASTE-3

Risk Management Plans for existing waste sites without a Prescribed Instrument

Where the *Environmental Protection Act*, 1990 (as amended) does not require an approval, the existing operation or maintenance of a waste disposal site is designated for the purpose of Section 58 of the *Clean Water Act, 2006* (Risk Management Plan) where this activity is a significant drinking water threat. This includes, but is not limited to, PCB waste storage. The Risk Management Plan shall include the following:

- Inclusion of the most up-to-date best management practices regarding PCB waste storage, waste, and other harmful compounds
- A spill/emergency response plan which includes procedures to contact the local drinking water plant operator

This policy does not apply to waste that is registered with the Ministry of the Environment, Conservation and Parks waste generation reporting system, or waste that is approved to be transported off-site using the Ministry of the Environment, Conservation and Parks manifest process or waste that is subject to Director's Instructions.

Note: Additional policies apply. See: *MONITORING-1, GENERAL-5,* and *GENERAL-6*.

Policy WASTE-4

Prohibition of future waste sites without a Prescribed Instrument

Where the *Environmental Protection Act*, 1990 (as amended) does not require an approval, the future establishment, operation, or maintenance of a waste disposal site is designated for the purpose of Section 57 of the *Clean Water Act*, 2006 (prohibition) where it would be a significant drinking water threat. This includes, but is not limited to, PCB waste storage.

This policy does not apply to waste that is registered with the Ministry of the Environment, Conservation, and Parks waste generation reporting system, or waste that is approved to be

transported off-site using the Ministry of the Environment, Conservation and Parks manifest process or waste that is subject to Director's Instructions.

This prohibition takes effect when the Source Protection Plan takes effect.

Note: Additional policies apply. See: *MONITORING-1* and *GENERAL-6*.

Liquid Hydrocarbon Pipelines

Overview

Liquid Hydrocarbon Pipelines transmit or distribute liquid hydrocarbons to terminals and distribution centers; specifically, within the meaning of Ontario Regulation 210/01 under the *Technical Safety and Standards Act* or that are subject to the *National Energy Board Act*. It does not capture pipelines that move liquefied natural gas or liquid petroleum gas.

Liquid hydrocarbon pipelines exist in the Raisin-South Nation SPR (major lines include Enbridge and TransNorthern); however, none have been identified as a significant drinking water threat.

There is potential for existing pipelines could be converted to liquid hydrocarbon pipelines (i.e. the Line 9 conversion), or a new source protection area could be established that encompasses an existing pipeline.

The goal for reducing or eliminating this drinking water threat is to prevent spills due to pipeline ruptures and to have appropriate spill response.

Policy Intent

Policy PIPE-1 recommends pipeline owners develop and review existing spill prevention, spill management, risk reduction, and Contingency Plans.

Policy PIPE-2 recommends the Canada Energy Regulator and the Ontario Energy Board provide the Source Protection Authority the location of any new proposed pipeline within the Source Protection Area and are asked to ensure that the applicant has complied with or included appropriate design standards, monitoring, and maintenance practices to prevent a pipeline from becoming a significant drinking water threat.

PIPE-1 and PIPE-2 are non-legally binding.

Policy PIPE-1

Emergency response planning for liquid hydrocarbon pipelines where they would be a significant drinking water threat

Where establishment and operation of a liquid hydrocarbon pipeline would be a significant drinking water threat, it is strongly recommended that the pipeline owners develop and review existing spill prevention, spill management, risk reduction and Contingency Plans to ensure the following:

- Spill response timeframes are established;
- Notification protocols are established with the Spills Action Centre to ensure direct notification to potentially affected water treatment plant operators;
- That appropriate pipeline system failure and shut down measures and policies are included;
- That the pipeline design and operational best management practices are in place (including potential additional design and operational best management practices); and
- A provision is included in the Contingency Plan that the facility owner work with the local municipality to ensure that testing of the Contingency Plan is carried out regularly (frequency and priority to be determined in consultation).

Policy PIPE-2

Notice and planning for future liquid hydrocarbon pipelines where they would be a significant drinking water threat

Where the establishment and operation of a liquid hydrocarbon pipeline would be a significant drinking water threat, the pipeline proponent, the Canada Energy Regulator, and Ontario Energy Board are encouraged to provide the Source Protection Authority the location of any new proposed pipeline within the Source Protection Region.

The Canada Energy Regulator, and the Ontario Energy Board are also requested to ensure that the applicant has complied with or included appropriate design standards (including location of safety valves), monitoring, and maintenance practices (including integrity management programs) to prevent a pipeline from becoming a significant drinking water threat.

General Policies

This section contains policies which address broad topics such as education and outreach, implementation timelines, and recommended actions.

Policies GENERAL-7 to GENERAL-13 are non-legally binding and relate to permissible content outside of the significant drinking water threats.

Policy GENERAL-1

Source Protection - Education and Outreach

The Municipality shall establish an education and outreach program where activities could be a significant drinking water threat. The program shall be targeted at residents, farms, and businesses. The program shall promote:

- General Source Protection awareness including the location of vulnerable areas
- Best management practices to reduce or eliminate impacts from activities which pose a threat to source water
- Proper septic system care and maintenance
- Salt and snow storage best practices
- Awareness of Ontario's cosmetic pesticide ban and best management practices where pesticides are used under an exemption from the ban
- The importance of complying with all content of the Pesticide Safety Course and best management practices regarding the handling and storage of pesticides
- Area-wide education and outreach programs promoting integrated pest management and alternative pest control, targeting golf courses and sports fields
- Participation in the Environmental Farm Plan Program
- Awareness regarding non-agricultural source material application for landowners
- Safer alternatives to dense non-aqueous phase liquids and organic solvents
- Proper disposal of dense non-aqueous phase liquids and organic solvents; program will target both commercial/industrial and residential landowners
- Awareness of stormwater management relating to storm-drains and the dangers linked to dumping chemicals into drains within the urban sewer catchment area
- The creation and promotion of a year-round depot drop-off for hazardous wastes
- Working with the Source Protection Authority to access funding or other applicable incentive programs
- Best management practices for waste that is not regulated by the Ministry of the Environment, Conservation and Parks through means other than Prescribed Instruments.

The Municipality shall establish an education and outreach program to inform people about the importance of proper construction, operation and maintenance of their oil burning equipment (furnace, generator) and promote alternative fuel options. The program could include:

- Distribution of a sticker to be placed on oil tanks that indicates that the tank is in a vulnerable area and providing procedure(s) to be followed in the event of a fuel spill or leak, including a spill response contact number
- Promotion of existing incentive programs including incentive programs for switching to alternative fuel sources
- Provide information relating to:
  - The mandatory requirements for fuel tank usage and maintenance
  - The best management practices for fuel tank usage and maintenance
- Promotion of the importance of having pollution liability insurance

Once established, these programs shall be on-going with materials being disseminated intermittently as deemed appropriate. Education and outreach programs should be harmonized with existing education and outreach programs where this would result in an increase in efficiency or cost-effectiveness.

The Municipality may enter into an agreement with a third party to implement the education and outreach program and/or any related reporting.

The program shall be implemented within two years of the Plan taking effect.

Note: Additional policies apply. See: *MONITORING-4.*

Policy GENERAL-2

Defining existing activities

For the purpose of the Source Protection Plan, an activity will be considered existing if:

- It occurred on the property within the last 12 months before the Plan takes effect, or in the case of activities related to agriculture, wherever the local zoning permitted agricultural uses prior to the plan taking effect
- It has not yet occurred but is associated with a development for which a complete application for regulatory or planning approvals has been submitted and accepted before the day the Plan takes effect

Where a policy of the Source Protection Plan has been modified by an amendment, an activity subject to that policy which was not subject to a similar policy before the amendment shall be considered existing if it meets the criteria established above, in relation to the date the amendment takes effect.

Policy GENERAL-3

Timeline for Official Plan and by-law conformity

Where a Source Protection policy specifies that Section 39.1 (planning decisions), Section 40 (Official Plan) and Section 42 (zoning by-laws) of the *Clean Water Act*, 2006 apply, the respective Planning Approval Authority shall amend the Official Plan no later than the time of the five or ten-year review period (Section 26(1.1) of the *Planning Act, 1990*). Zoning by-laws must be updated within three years of the Official Plan amendments to bring them into conformity with the Official Plan (Section 26(9) of the *Planning Act, 1990*).

Note: *Planning Act, 1990* decisions must conform immediately when the Plan takes effect.

Policy GENERAL-4

Timeline for existing Prescribed Instrument conformity

Prescribed Instruments which exist on the day the Plan takes effect must be reviewed and, if necessary, amended within three years from the date the Plan takes effect.

Policy GENERAL-5

Provisions for Risk Management Plans (Section 58, *Clean Water Act*, 2006)

The timeline for establishing a Risk Management Plan is left to the discretion of the Risk Management Official. Additionally, where a policy in this Source Protection Plan requires the development of a Risk Management Plan (RMP), the RMP must only address the portion of the property where the activity is a significant drinking water threat and must consider all existing risk management measures being undertaken on the subject property.

Where policies in this Source Protection Plan require the development of a RMP for more than one type of significant drinking water threat on the same property, a single RMP may be developed to address all threats.

Policy GENERAL-6

Restricted land uses

To ensure the application of Section 57 (prohibition) and 58 (Risk Management Plan) of the *Clean Water Act, 2006*, all land-uses as defined in local zoning by-laws are designated for the purpose of Section 59 (restricted land uses) of the *Clean Water Act, 2006* within the vulnerable areas.

This applies specifically to these policies related to significant threats in Wellhead Protection Areas and Intake Protection Zones:

- AG-1: Existing and future agricultural activities subject to a Risk Management Plan
- CHEM-1: Risk Management Plans for existing chemical threats
- CHEM-2: Prohibition of future chemical threats
- FUEL-1: Existing and future fuel oil storage (O. Reg. 213/01) subject to a Risk Management Plan
- FUEL-2: Risk Management Plan for liquid fuels (O. Reg. 217/01)
- FUEL-4: Prohibition of future liquid fuel facilities (O. Reg. 217/01)
- PEST-2: The existing and future application, storage, and handling of pesticide subject to a Risk Management Plan
- PEST-3: Prohibition of future commercial storage and handling of pesticide
- SALT-2: Risk Management Plans for existing storage of road salt and snow
- SALT-3: Prohibition of future storage of salt and snow
- WASTE-3: Risk Management Plans for existing waste sites without a Prescribed Instrument
- WASTE-4: Prohibition of future waste sites without a Prescribed Instrument

If the applicant can demonstrate to the satisfaction of the approval authority that a significant drinking water threat activity will not occur, notice under s. 59 (2) is not required.

Policy GENERAL-7

Earth (Geothermal) energy systems

Section 27 (3) and (4) of O. Reg. 287/07 (under the *Clean Water Act, 2006*) requires municipalities to provide notice to the Source Protection Authority when pathways are created or modified. The Municipality should review new earth energy systems within Wellhead Protections Areas (WHPAs) to ensure they do not endanger the municipal drinking water system.

It is recommended that the Municipality:

- prohibit the installation of all types of earth energy systems in WHPA-A ;
- require* a qualified hydrogeologist to oversee the design and installation of new earth energy projects (with the exception of horizontal closed loop systems) in WHPA-B to ensure that the construction of the system meets the requirements of the Ontario Building Code and does not result in groundwater contamination. For a residential system, the hydrogeologist should assess the potential of encountering problems (such as multiple aquifers, cross-connection of aquifers and differing water quality) and make recommendations to mitigate them, including alterations to the design of the system; and
- keep relevant records for new earth energy systems within WHPAs,

*The Canadian Standards Association requires that a commercial/institutional system be designed and inspected by a professional engineer and require that a hydrogeologist undertake a site survey.

Policy GENERAL-8

Municipal sewer-use by-law

Where sewage, organic solvents, and/or dense non-aqueous phase liquids (DNAPLs) could be a significant threat, Municipalities should consider creating or strengthening sewer-use by-laws to place limits on waste discharges. This by-law should encourage best management practices to reduce release of sewage, organic solvents and DNAPLs into sewers.

The Municipality shall report to the Source Protection Authority when sewer-use by-laws come into effect or are updated or strengthened to include limits on waste discharges.

Note: Additional policies apply. See: *MONITORING-5.*

Policy GENERAL-9

Update of municipal emergency response plans

For areas which include a Wellhead Protection Area or an Intake Protection Zone along a transportation corridor (railways, highways as defined in Subsection 1(1) of the *Highway Traffic Act*, *1990*, St. Lawrence Seaway, and the Ottawa River) it is recommended that the Municipality update their Emergency Response Plans to include:

- Maps of the Wellhead Protection Areas and Intake Protection Zones
- Emergency contact numbers and protocols for the respective water treatment plant operating authority
- Measures to prevent contamination of the drinking water source from spills and/or chemicals used to deal with an emergency (including fire suppressants)

Policy GENERAL-10

Spills Action Center - identification of vulnerable areas

Within one year of the Source Protection Plan taking effect, it is recommended that the Spills Action Centre review and update contact information and procedure cards to include the Intake Protection Zone and Wellhead Protection Area delineations and updated procedures for contacting drinking water plant operators who may be affected by the spill. This will ensure that drinking water sources are protected in the event of a spill originating from transportation corridors (rail, highways as defined in Subsection 1(1) of the *Highway Traffic Act*, *1990*, St. Lawrence Seaway and the Ottawa River) or a hydrocarbon pipeline.

It is recommended that the Spills Action Centre work with all levels of the St. Lawrence Seaway authority including the Great Lakes Pilot Authority and the St. Lawrence Seaway Management Corporation to ensure that Seaway pilots are aware of Intake Protection Zones and understand the procedures to follow in the event of a spill.

Policy GENERAL-11

Support for Ministry of Transportation signage initiative

In accordance with Section 22 (7) of the *Clean Water Act, 2006*, the Ministry of Transportation, in collaboration with the Ministry of the Environment, Conservation and Parks as well as in consultation with Source Protection Authorities (SPAs), should design a sign to the appropriate Provincial standards, to identify the locations of Wellhead Protection Areas and Intake Protection Zones. The Ministry of Transportation should manufacture, install, and maintain the signs along Provincial Highways within the Wellhead Protection Areas with a vulnerability score of 10, and/or within an Intake Protection Zone or Wellhead Protection Area E with a vulnerability score of 8 or higher.

Municipalities will be responsible for the purchase, installation and maintenance of appropriate signs designed by the Province in collaboration with the SPAs. These signs should be placed, at a minimum, where municipal arterial roads are located within Wellhead Protection Areas with a vulnerability score of 10, and/or an Intake Protection Zone or Wellhead Protection Area E with a vulnerability score of 8 or higher.

The above policies will be implemented as part of an overall education and outreach plan within each Source Protection Area.

This policy should be implemented within two years after the effective date of the Plan.

Policy GENERAL-12

Updates to the Ontario Pesticide Education Program (Ministry of the Environment, Conservation and Parks)

It is recommended that the Ministry of the Environment, Conservation and Parks work with the Ontario Pesticides Education Program Committee to review the Ontario Pesticides Education Program and consider the incorporation of Source Protection information into the education. The pesticide education materials should teach pesticide applicators how to find out if their lands are in a Wellhead Protection Area or an Intake Protection Zone.

Policy GENERAL-13

Incentive programs

It is strongly recommended that Ministry of the Environment, Conservation and Parks continue to support and facilitate the implementation of existing incentive programs that protect drinking water

sources, such as the Ontario Drinking Water Stewardship Program (ODWSP). It is also recommended that the Ministry of the Environment, Conservation and Parks promote and encourage other Provincial incentive programs that promote the implementation of best management practices for activities that are significant drinking water threats.

Monitoring Policies

The *Clean Water Act, 2006* requires that Source Protection Plans include monitoring policies for each significant threat policy (as per Subsection 22(2)). The monitoring policies will help the Source Protection Authority create annual progress reports relating to policy implementation. The monitoring policies will also help to ensure that the Source Protection policies are effective and are being properly implemented. The *Clean Water Act, 2006* includes specific legal requirements for monitoring policies which are directed at public bodies (as per Subsection 22(5) and 45).

In this Plan, a single monitoring policy text was established for each policy tool where possible. For example, all Risk Management Plan policies will have the same monitoring policy.

Policy MONITORING-1

Part IV *Clean Water Act, 2006* tools (restricted land uses, Risk Management Plans and prohibition)

The Risk Management Official shall report annually by February 1st to the Source Protection Authority on the significant threat policies that designate an activity for the purpose of Section 58 (Risk Management Plans) or Section 57 (prohibition) of the *Clean Water Act, 2006*. This report will include the information required in Section 65 of Regulation 287/07 (information on the establishment and enforcement of Risk Management Plans, inspections, and abatement measures in addition to descriptions of the administrative, enforcement and compliance results) related to the previous calendar year.

Additionally, the Risk Management Official shall inform the Source Protection Authority of the method/procedure used to implement GENERAL-6 (restricted land uses).

Policy MONITORING-2

Planning Act, 1990 policies

The local planning authority shall, annually by February 1st, provide the Source Protection Authority with the following information for the previous calendar year:

- A copy of the sections of the Official Plan and zoning by-laws which were amended to conform with the Source Protection Plan;
- A copy of any approvals made under the *Planning Act, 1990* for applications for properties in the designated land uses listed in GENERAL-6 (restricted land uses); and

- A copy of the permit for approvals made under a change of use by-law, if applicable, for properties in designated land uses listed in GENERAL-6 (restricted land uses), when the permit is issued.

Policy MONITORING-3

Prescribed Instruments

By February 1st of each year, the Ministries shall prepare an annual summary of the actions taken to achieve the outcomes of the Source Protection policies in the previous calendar year and make that report available to the Source Protection Authority.

Additionally, it is strongly recommended that the Ministry responsible for approval, inspections, and enforcement for each Prescribed Instrument include the following in their annual report:

- The number of instruments which have been reviewed and changes made including amendments to Environmental Compliance Approvals;
- Compliance and enforcement relating to Prescribed Instruments for significant threat activities; and
- Prioritized inspections in the vulnerable areas.

Policy MONITORING-4

Education and Outreach

By February 1st of each year, the Municipality or designate shall report to the Source Protection Authority with a description of the actions/measures they have taken in the previous calendar year to implement the education/outreach program described in the Source Protection Plan.

The report shall also include an evaluation of the program and suggestions to improve its effectiveness.

Policy MONITORING-5

Specify Action

Where a policy requires the Municipality to implement a specific action, the Municipality shall report to the Source Protection Authority annually by February 1st on the steps taken to implement this policy.

Any consultation with the Source Protection Authority required under policy SEWG-7 for Storm Water Management Facilities and Drainage Systems that qualify for Consolidated Linear Infrastructure preauthorization shall be included in the annual reporting.

Policy MONITORING-6

Salt Management Plans and chloride monitoring

Where salt application could be a significant drinking water threat, the Municipality shall send the Source Protection Authority a copy of their updated or existing Salt Management Plan within two years of the Plan taking effect. If the Salt Management Plan is updated or amended, the updated version shall be sent to the Source Protection Authority when it is completed.

The results of any chloride monitoring at a municipal groundwater well shall be reported to the Source Protection Authority when available.

Policy MONITORING-7

Salt Management Plans for the Ministry of Transportation

For the areas where salt application could be a significant drinking water threat, the Ministry of Transportation (MTO) shall send the Source Protection Authority a copy of their existing Salt Management Plan (SMP) upon request. The MTO shall send subsequent copies of the SMP when it is updated, including any results from research and/or pilot projects.

4 Policy Implementation

Responsibilities

Provincial ministries and municipalities are responsible for implementing the legally binding policies in this Plan. Other agencies and bodies have been strongly encouraged to implement a variety of non-legally binding polices that will greatly contribute to the protection of municipal drinking water.

Source Protection Authorities (SPAs) will continue to oversee the Source Protection process in the future by supporting and coordinating with implementers as required. The SPAs are also responsible for compiling feedback from the monitoring policies and using this information to prepare annual progress reports.

Timelines

Each policy in the Source Protection Plan has a date by which it is required to be implemented. The compliance date is usually indicated within the policy wording. Where the date is not specified there is a default timeline established through the *Clean Water Act, 2006*.

The timeline for development of Risk Management Plans for existing threats is left to the discretion of the Risk Management Official. This allows flexibility for landowners to receive funding or grants for work that may be required on their property. Future activities in the vulnerable areas will be screened prior to applying for approvals. If required, a Risk Management Plan will be developed prior to the activity being established.

Annual Progress Report

The *Clean Water Act, 2006* requires that each Source Protection Authority prepare an annual progress report which will outline the measures taken to address all significant drinking water threats, the results of any related monitoring, and the steps taken to achieve the Source Protection Plan's objectives. The annual report will inform any future amendments to the Source Protection Plan. The annual reports require:

- monitoring results of implementation of the policies;
- reports prepared by a Risk Management Official;
- reports from municipal actions; and,
- information gathered from property inspections.

Additionally, the Minister of the Environment, Conservation and Parks may, at any time, require that the Plan undergo a review to update information on the location of new groundwater wells and drinking water intakes, the vulnerability scores of these new systems, and any emerging areas of concern.

Updating the Plan

The Source Protection Plan is a living document that will be reviewed and improved periodically. The reviews will be based on feedback received from affected stakeholders during implementation. This feedback will be captured in the annual progress report, which will highlight policies that may need to be reviewed or amended.

An update to the Source Protection Plan, under Sections 36 of the Clean Water Act, was undertaken in 2019 through 2024. This update process was informed by annual progress reports, implementation challenges, direction from the Ministry of the Environment, Conservation and Parks and comments and feedback from municipalities.

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Appendix A: Director's List

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Director's List

The Director's List is meant to ensure that, where the Source Protection Committee intends for a policy to be given legal effect under the *Clean Water Act, 2006*, the Source Protection Committee does so in a manner that complies with the Regulation (s.34 (1)).

The following lists specify the sections of the *Clean Water Act, 2006* which apply to each policy.

List A – Significant threat policies that affect decisions under the *Planning Act, 1990* and *Condominium Act, 1998*

Clause 39 (1) (a), Subsections 39 (2), (4), and (6), and Sections 40 and 42 of the *Clean Water Act, 2006* apply to the following policies:

- SEWG-3
- SEWG-5
- SEWG-7 (b)
- WASTE-2
- GENERAL-2
- GENERAL-3
- GENERAL-6

List B - Moderate and low threat policies that affect decisions under the *Planning Act, 1990* and *Condominium Act, 1998*

- None.

List C - Significant threat policies that affect Prescribed Instrument decisions

Subsection 39 (6), clause 39 (7) (a), Section 43 and Subsection 44 (1) of the *Clean Water Act, 2006* apply to the following policies:

- FUEL-3
- PEST-1
- SNOW-3
- SNOW-4
- SEWG-1
- SEWG-2
- SEWG-3
- SEWG-6
- SEWG-7
- WASTE-1
- WASTE-2

- GENERAL-2
- GENERAL-4

List D - Moderate and low threat policies that affect Prescribed Instrument decisions

- None

List E - Significant threat policies that impose obligations on municipalities, Source Protection Authorities, and local boards

Section 38 and Subsection 39 (6) of the *Clean Water Act, 2006* applies to the following policies:

- SALT-1
- SALT-5
- SNOW-1
- SEWG-1
- SEWG-4
- SEWG-5
- SEWG-7
- GENERAL-1

List F - Monitoring policies referred to in Subsection 22 (2) of the *Clean Water Act, 2006*

Section 45 of the *Clean Water Act, 2006* applies to the following policies:

- MONITORING-1
- MONITORING-2
- MONITORING-3
- MONITORING-5
- MONITORING-6
- MONITORING-7

List G - Policies related to Section 57 of the *Clean Water Act, 2006*

The following policies relate to Section 57 (prohibition) of the *Clean Water Act, 2006*:

- CHEM-2
- FUEL-4
- PEST-3
- SALT-3
- SNOW-2
- WASTE-4

- GENERAL-2
- GENERAL-6

List H - Policies related to Section 58 of the *Clean Water Act, 2006*

The following policies relate to Section 58 (Risk Management Plans) of the *Clean Water Act, 2006*:

- AG-1
- CHEM-1
- FUEL-1
- FUEL-2
- PEST-2
- SALT-2
- WASTE-3
- GENERAL-2
- GENERAL-5
- GENERAL-6

List I - Policies related to Section 59 of the *Clean Water Act, 2006*

The following policies relate to Section 59 (restricted land uses) of the *Clean Water Act, 2006*:

- GENERAL-2
- GENERAL-6

List J – Strategic Action policies

For the purposes of Section 33 of Ontario Regulation 287/07, the following policies are identified as strategic action policies:

- GENERAL-6
- GENERAL-7
- GENERAL-8
- GENERAL-9
- GENERAL-10
- GENERAL-11
- GENERAL-12
- GENERAL-13
- MONITORING-4

List K – Policies which do not fit under the previous lists (non-legally binding)

- SALT-4

- PIPE-1
- PIPE-2

Prescribed Instruments which apply to Source Protection Plans

The following table lists Prescribed Instruments which apply to Source Protection Plan policies in Lists C and D above (s. 34(4) of O.Reg. 287/07).

Prescribed Instrument	**Policy**
Aggregate Resources Act, 1990	None
Environmental Protection Act, 1990	WASTE-1, WASTE-2,
Municipal Drinking Water License / Permit (s.40, 44, *Safe Drinking Water Act, 2002*)	FUEL-3
s. 53, *Ontario Water Resources Act, 1990*	SNOW-3, SNOW-4, SEWG-1, SEWG-2, SEWG-3, SEWG-6, SEWG-7, WASTE-1, WASTE-2
Pesticides Act, 1990	PEST-1

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Appendix B: Glossary

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Glossary

Agricultural Source Material

Agricultural source material (ASM) is treated or untreated material that is capable of being applied to land as a nutrient. Farmers use manure on their farmland, but residential landowners can also apply manure as lawn fertilizer.

The definition from O. Reg. 267/03 includes the following additional categories:

- Manure produced by farm animals, including bedding materials
- Runoff from farm-animal yards and manure storages
- Wash water that has not been mixed with human body waste (e.g. from the milking center)
- Organic materials produced by intermediate operations that process the above materials (e.g., mushroom compost)
- Anaerobic digestion output that does not include sewage bio-solids or human body waste (anaerobic digestion is a process used to decompose organic matter by bacteria in an oxygen-limited environment)
- Regulated compost (which contains dead farm animals)

ASM does not include compost that meets the Compost Guidelines, or a commercial fertilizer.

Animal Yard, Confinement Area

An animal confinement area is defined as an enclosure for livestock or game animals that has all of the following characteristics:

- An unroofed area (with the exception of small wind or shade shelters that are under 20 m^2/200 ft^2);
- A grazing or foraging area that accounts for less than 50 per cent of the animals' dry matter intake; or
- Fences, pens, corrals or similar structures to confine the animals, that are either permanent or temporary allowed, access to a barn.

Aquifer

From the Latin for "water carrier", a geological formation (typically porous material, such as sand or gravel, or fractured rock) that stores and is capable of transmitting water in sufficient quantities to serve as a sustainable source of water supply.

Assessment Report

The Assessment Report is a technical document which contains information on threats to drinking water quality and quantity for municipal sources. The Assessment Report identifies vulnerable areas and the land-use activities that may pose a threat. This provides a scientific foundation for the Source Protection process. Assessment reports contain information on water budgets, ground and surface water flow, groundwater recharge areas, Intake Protection Zones, and Wellhead Protection Areas where contaminants may enter a drinking water source.

The Assessment Report is a living document which will be amended and updated over time as new studies and reports are completed.

Circumstances

Circumstances specify details about what makes an activity a threat. The circumstances were developed because the risk to drinking water can vary depending on the specific details of the activity. Details may include the type of chemical being used, volume of storage and whether storage is above or below ground. For example, the volume of fuel storage which poses a threat is dependent on whether it is stored above or below grade (above ground or in a basement).

Clean Water Act, 2006

The *Clean Water Act, 2006* lays out requirements for Source Protection committees to list activities that are or would be drinking water threats in vulnerable areas. Through regulations and technical rules, the province has set out which activities, at a minimum, must be considered drinking water threats under specific circumstances. Specifically, Section 1.1 of Ontario Regulation 287/07 (General) lists activities that are prescribed as drinking water threats and the Tables of Drinking Water Threats in the Technical Rules specifies under what circumstances these activities are categorized as significant, moderate, or low drinking water threats.

Conservation Authority

Conservation authorities (CAs) are local, community-based agencies which work with municipalities to manage a watershed. CAs are directed to ensure the conservation, restoration, and responsible management of Ontario's water, land and natural habitats while considering human, environmental, and economic needs.

Source Protection is carried out on a watershed scale; for this reason, the CA forms the functional unit of the Source Protection Region.

Decommissioning (Septic System)

For the purpose of this Plan, decommissioning of a septic system refers to disconnecting it from the dwelling, pumping out the tank, and collapsing and backfilling the tank or removing the tank entirely. The disturbed area should be returned to grade.

Dense Non-Aqueous Phase Liquid

In general, a dense non-aqueous phase liquid (DNAPL) is defined as a heavier-than water organic liquid that is only slightly soluble in water. DNAPLs can flow through fractures or fissures in fractured rock and clay to sink vertically to the water table and then eventually settle below the water table.

The primary classes of DNAPLs include:

- 1,4-Dioxane
- Tetrachloroethylene (Perchloroethylene [PCE])
- Trichloroethylene [TCE]
- Vinyl Chloride [VC]
- Polycyclic Aromatic Hydrocarbons [PAHs]

Any other DNAPL compound which can degrade into one of the above chemicals is also a significant threat.

DNAPL contaminated sites have proven to be complex to investigate and both challenging and costly to remediate. It may take many decades for natural groundwater dissolution or natural breakdown of the DNAPL to dissipate DNAPL sources. Many of these liquids are suspected or proven to be carcinogenic (cancer-causing). Examples of DNAPLs include, but not limited to, furniture stripper, nail polish, dry cleaning fluids, aerosols, coolants, polychlorinated biphenyls (PCBs), creosote and degreasers.

Environmental Compliance Approval

An Environmental Compliance Approval (ECA) is a permission allowing the regulated discharge of contaminants into the natural environment. Activities subject to an ECA are described under the *Environmental Protection Act, 1990* (EPA) and *Ontario Water Resources Act, 1990* (OWRA). A Consolidated Linear Infrastructure ECA (CLI ECA) allows a single pre-authorized approval for individual components of a municipal sewage collection system and municipal stormwater management system.

Intake Protection Zone

Intake Protection Zones (IPZs) are areas (land and water) near and upstream of a drinking water intake where human activities may need to be regulated to protect the quality and quantity of surface water that supplies the intake.

Land-farming of Petroleum Refining Waste

Land-farming is a treatment process that is performed in the upper soil zone or in bio-treatment cells. Contaminated soils, sediments, or petroleum-based sludges are incorporated into the soil and periodically turned over (tilled) to aerate the mixture.

Managed Lands

Managed land means land to which agricultural source material, commercial fertilizer, or non-agricultural source material, or processed organic waste is applied, excluding compost that meets the requirements for Categories “AA”, “A”, and “B” compost in Part II of the Compost Standards.

Non-Agricultural Source Material

Non-agricultural source material (NASM) means any of the following materials (other than compost that meets the Compost Guidelines or a commercial fertilizer) if the materials are intended to be applied to land as nutrients:

- Pulp and paper bio-solids
- Sewage bio-solids
- Anaerobic digestion output, if less than 50 %, by volume, of the total amount of anaerobic digestion materials that were treated in the mixed anaerobic digestion facility were on-farm anaerobic digestion materials
- Any other material that is not from an agricultural source and that is capable of being applied to land as a nutrient

Organic Solvents

Organic solvents are compounds which can dissolve solids, gases, and liquids. This includes:

- Carbon tetrachloride
- Chloroform
- Methylene chloride
- Pentachlorophenol

Some organic solvents are flammable and pose a risk to human health.

Pathogen

A pathogen is a disease-causing organism such as virus, bacterium, prion, or fungus.

Polychlorinated Biphenyl

Polychlorinated biphenyls (PCB) are man-made substances which were widely used in transformers and capacitors. Due to the toxicity of PCBs, they are no longer used Ontario. PCBs which have not been

destroyed are often stored at identified sites. The storage of these chemicals could be a significant threat to drinking water in certain areas.

Prescribed Instrument

A Prescribed Instrument is an instrument defined in Ontario Regulation 287/07 for which a decision to issue, create or amend must conform with significant threat policies set out in the Source Protection Plan.

Public Body

A public body is a municipality, local board or conservation authority, a ministry, board, commission, agency or official of the Government of Ontario, or a body prescribed by the regulations made under the *Clean Water Act, 2006*.

Risk Management Plan

A Risk Management Plan is a site-specific plan established under Section 58 of the *Clean Water Act, 2006* to address significant drinking water threat activities, where the threat cannot be addressed through different means, such as a Prescribed Instrument.

This tool cannot be used for waste disposal and sewage-related activities that require an Environmental Compliance Approval under the *Environmental Protection Act, 1990* or the *Ontario Water Resources Act, 1990*, or a permit under the Ontario Building Code.

Secondary Containment (fuel storage)

Secondary containment provides a barrier between the tank and the environment. The barrier holds any leaks between the tank and the barrier so that the leak is detected. The barrier is shaped so that a leak will be directed towards the interstitial monitor.

Barriers include:

- Double-walled or jacketed tanks, in which an outer wall partially or completely surrounds the primary tank;
- Internally fitted liners (bladders); and
- Leak-proof excavation liners that partially or completely surround the tank.

Clay and other earthen materials cannot be used as barriers.

Significant Drinking Water Threat

A drinking water threat that as identified in the Source Protection Plan and table of drinking water threats which poses or has the potential to pose a significant risk to drinking water.

Source Protection Area

A Source Protection Area is those lands and waters that have been defined under Ontario Regulation 284/07 as the "study area" for an Assessment Report and a Source Protection Plan under the *Clean Water Act, 2006*.

Source Protection Authority

A Source Protection Authority is a conservation authority or other person or body that is required to exercise powers and duties under the *Clean Water Act, 2006*.

Source Protection Committee

A Source Protection Committee is a group of individuals who have been appointed under the *Clean Water Act, 2006* by a Source Protection Authority to coordinate Source Protection activities for a Source Protection Area or Region.

Source Protection Plan

A Source Protection Plan is a document that is prepared by a Source Protection Committee under Section 22 of the *Clean Water Act, 2006* to direct Source Protection activities in a Source Protection Area. Each Plan is approved by the Ontario Ministry of the Environment, Conservation and Parks.

Source Protection Region

A Source Protection Region is two or more Source Protection areas that have been grouped together under Ontario Regulation 284/07.

Source Water

Source water is untreated water that is found in groundwater aquifers and surface water lakes and rivers that is used to supply a drinking water system.

Storm Water

Storm Water refers to any water runoff which makes its way into water bodies via the storm sewer system. For the purpose of this Plan, the threat to drinking water is limited to outfall from management facilities, drainage systems and infiltration facilities. Storm water management and infiltration facilities are designed for the treatment, retention, infiltration and/or control of storm water. This definition also applies to the drainage system, including storm water pipes that outfall directly into streams or water bodies.

Vulnerable Area

A vulnerable area is: (a) A significant groundwater recharge area, (b) a highly vulnerable aquifer, (c) an Intake Protection Zone, or (d) a Wellhead Protection Area.

Waste Disposal Sites

Waste disposal sites include:

- Application of untreated septage to land, or storage of untreated septage (hauled sewage)
- Application and storage of processed organic waste
- Storage, treatment, and discharge of tailings from mines
- Polychlorinated biphenyl (PCB) storage
- Land-farming of petroleum refining waste (biodegradation of petroleum waste)
- Liquid industrial waste injection into a well
- Landfilling (hazardous, municipal, industrial, commercial waste)
- Storage of hazardous waste at a disposal site
- Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste

Wellhead Protection Area

A Wellhead Protection Area (WHPA) is the area of land surrounding a well, where human activities may need to be regulated to protect the quality and quantity of ground water that supplies that well.

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Appendix C: Consultation

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Summary of Consultation

This appendix is intended to chronicle the process of local consultation carried out by the Raisin-South Nation Source Protection Committee, the Raisin Region Source Protection Authority, and the South Nation Source Protection Authority.

This summary documents the consultation for the Terms of Reference, the Assessment Report, and the Source Protection Plan. Municipalities, provincial ministries, stakeholders, and the public were all asked to collaborate and provide input.

The Source Protection Committee exceeded the requirements for public consultation as legislated under the *Clean Water Act, 2006* and Ontario Regulation 287/07.

Terms of Reference

Public consultation for the Terms of Reference was completed in accordance with Ontario Regulation 287/07. The following is a summary of efforts relating to the Terms of Reference for Source Protection Planning.

The proposed Terms of Reference was posted to *www.yourdrinkingwater.ca* on August 19, 2008, and circulated to all municipalities, First Nations, watershed committees, neighbouring source protection regions and various technical working groups. The posting of the Terms of Reference was advertised in local newspapers the weeks of September 8 and 22, 2008.

Four public open houses were held throughout the Source Protection Region in April 2008. Three were held in the South Nation Source Protection Area (Navan, Finch, and Johnstown). A public open house was also held in the Raisin Region Source Protection Area (Alexandria). A draft Terms of Reference was circulated to key stakeholders sector events including the Ontario Federation of Agriculture Eastern Summit on September 25, 2008 in Kemptville and at the Dundas Federation of Agriculture meeting of October 1, 2008 in Chesterville.

A total of 87 comments were submitted by 35 individuals and organizations on the Terms of Reference. It was submitted to the then Ontario Ministry of the Environment and Climate Change for final approval in May 2009.

Assessment Report

A consultation process was implemented for both the Draft and Proposed versions of the Assessment Report (AR)). Procedures were undertaken in accordance with Ontario Regulation 287/07. Correspondence was sent to 600 landowners, living in vulnerable areas at the onset of the draft proposed version of the AR, to invite participation in the impending AR process. The media campaign to provide notice for the draft proposed AR posting and invite participation in the open houses targeted 29 print and broadcast outlets throughout region.

Six open houses were held throughout late September and early October 2010 across the region. Two events were held in in the Raisin Region Source Protection Area (Alexandria and Lancaster) and four took place within the South Nation Source Protection Area (Alfred, Embrun, Chesterville and Spencerville). A total of 55 visitors attended these public sessions, serving as a valuable forum for information and dialogue with local municipalities, stakeholders and landowners.

During the first posting in September 2010, 14 comments were received on the draft proposed Assessment Report. Over the course of the second posting in November 2010, no written comments were received.

Throughout 2010, as the AR was being developed, the Source Protection Committee made a collaborative effort to share the data and mapping being prepared for the draft document. A total of 35 Source Protection presentations / meetings took place with municipal council members and staff, stakeholder groups, First Nations, and landowners. The “Early Engagement” process also included public information sessions on Source Water Protection and Best Management Practices, landowner forums, and formal presentations to municipal councils. As a result of this activity, the overall response to the proposed AR by both municipalities and the public was encouraging.

The final versions of the Raisin Region Source Protection Area and South Nation Source Protection Area ARs were approved by the then Ontario Ministry of the Environment and Climate Change in October of 2011 and posted on the provincial Environmental Registry in January 2012.

Source Protection Plan

In January 2011, the Source Protection Committee and program staff actively began development of the next phase of the Source Protection process with the commencement of the Source Protection Plan and the drafting of Source Protection policies.

Notice of Plan Preparation Commencement

The Raisin-South Nation Source Protection Committee is required under Section 19 of General Regulation 287/07 to formally give notice in their respective Source Protection Areas when they began preparation of their Source Protection Plans. This directive was fulfilled by notifying the clerks of each municipality within both Source Protection Areas.

Approximately 450 letters went out to those landowners who could be engaging in one or more activities considered significant drinking water threats. Landowners were invited to become involved in the process by contacting us to provide details on their properties and activities. One on one discussions took place between the Source Protection Committee members and staff and many of these landowners.

Subsequently details surrounding properties have been clarified and confirmed. In addition, letters of Plan Preparation Commencement were also sent to the St. Lawrence Seaway Management Corporation and the Mohawk Council of Akwesasne in October 2011.

Pre-consultation on Preliminary Draft Policies

Under Ontario Regulation 287/07 (Sections 35 to 39) the term "Pre-Consultation" refers to a legislated requirement to send notices to persons or bodies responsible for implementing policies, and to government ministries that have obligations under the *Clean Water Act, 2006*.

The Source Protection Committee complied with this legislation by focusing its pre-consultation on the parties that would be responsible for implementation.

Notices were sent out at the beginning of November 2011 to provincial ministries, municipalities, public health units, Source Protection Authorities, and other potential implementing bodies.

Two municipal staff and councillor's forums were held to update municipalities on the Source Protection Plan and discuss preliminary policies as well as implementation issues. Municipal council and staff round table discussions also took place on an ongoing basis throughout the Raisin-South Nation Source Protection Region.

Consultation on the Draft Proposed Source Protection Plan

Criteria for formal consultation on Draft Proposed Source Protection Plans are prescribed in Section 41 of Ontario Regulation 287/07. In accordance with this legislation, on March 1, 2012, the Draft Proposed Source Protection Plan for the Raisin-South Nation Source Protection Region was posted on the internet at *www.yourdrinkingwater.ca* for a 35-day public comment period. In addition, four public open houses were held in Greely, Alexandria, Winchester and Casselman.

Bilingual public notices outlining information on the comment period and the four community open houses were posted in regional media. Notices and links to the Draft Proposed Source Protection Plan document were also sent to municipalities responsible for implementing policies, all government ministries that have obligations under the *Clean Water Act, 2006* as well as to approximately 450 landowners identified as living in vulnerable areas.

A total of 130 participants attended the four public open houses. Overall, discussion took place with 185 landowners over the course of this phase of consultation. Feedback was also provided by the public as well as implementing bodies such as municipalities, provincial ministries, and other agencies. The public comment period closed on April 5, 2012, and 155 written comments were received from 25 individual commenting sources.

Consultation on the Proposed Source Protection Plan

Criteria for formal consultation on Proposed Source Protection Plans are prescribed in Section 42 of Ontario Regulation 287/07. In accordance with this legislation, on June 22, 2012, the Proposed Source Protection Plan for the Raisin-South Nation Source Protection Region was posted on the internet at *www.yourdrinkingwater.ca* for a 40-day public comment period.

Bilingual public notices outlining information on the comment period were posted in regional media. Notices and links to the proposed Source Protection Plan document were also sent to municipalities responsible for implementing policies and all government ministries that have obligations under the *Clean Water Act, 2006*.

The public comment period closed on August 1, 2012, and approximately 90 written comments were received from 10 individual commenting sources.

Consultation on the Section 36 Update

A proposed workplan for updating the Raisin-South Nation Source Protection Plan was submitted to the Ministry of the Environment, Conservation and Parks November 30, 2018.

The reply from the Ministry of the Environment, Conservation and Parks, received July 22, 2019 included a description of the mandatory updates to the Assessment Report and Source Protection Plan, and the amendment process for updates including consultation.

The consultation required included:

- Early consultation with the Ministry of the Environment, Conservation and Parks Source Protection Program Branch on any draft updates prior to pre-consultation with other bodies
- Pre-consultation with all implementing bodies as well as persons and businesses engaged in significant drinking water threats in the geographic areas affected by the updates in accordance with sections 35 to 39 of the General Regulations
- Consultation for a minimum of 35 days, including notification and publication of the proposed changes.

Consultation with municipalities in 2018 in preparation of the workplan helped identify areas of potential concern to be considered as part of the section 36 updates.

In drafting the updates, Raisin-South Nation Source Protection staff consulted with the Ministry of the Environment, Conservation and Parks in advance of presenting proposed amendments to the Source Protection Committee. Staff additionally consulted with current implementers including the Ontario Ministry of Food, Agriculture and Rural Affairs and sector representatives where possible.

Revised policies in the Source Protection Plan were presented to the Source Protection Committee for approval for early engagement with the Ministry of the Environment, Conservation and Parks in March and November 2019.

The early-engagement package was submitted to the Ministry of the Environment, Conservation and Parks on July 11, 2023 for review and comment prior to pre-consultation with implementing bodies and persons or businesses engaged in significant drinking water threats in the geographic areas affected by the update. Comments were received from the Ministry of the Environment, Conservation and Parks on November 1, 2024.

Additional consultation information to be added as early engagement and public consultation is completed.

Appendix D: Maps

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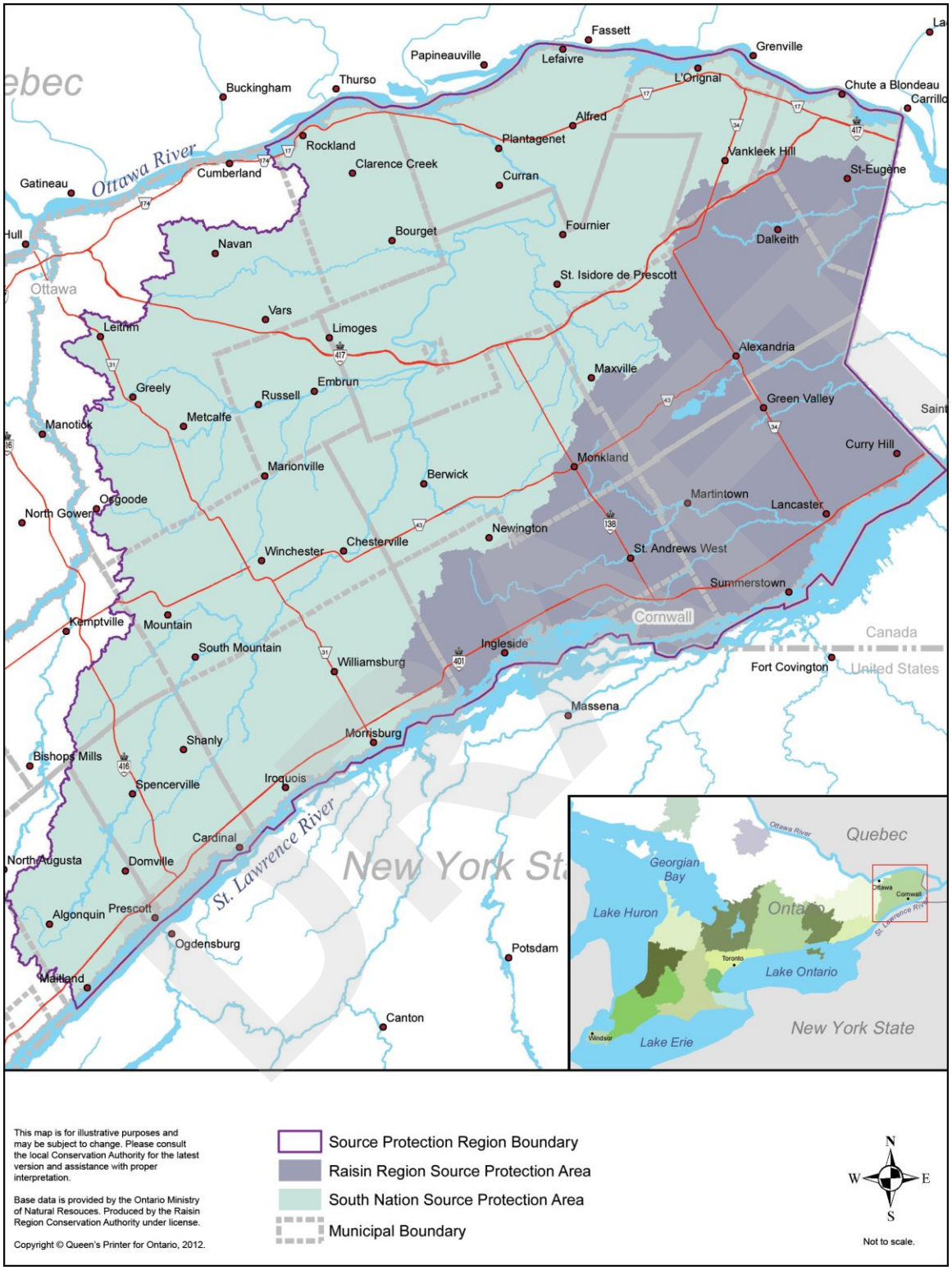
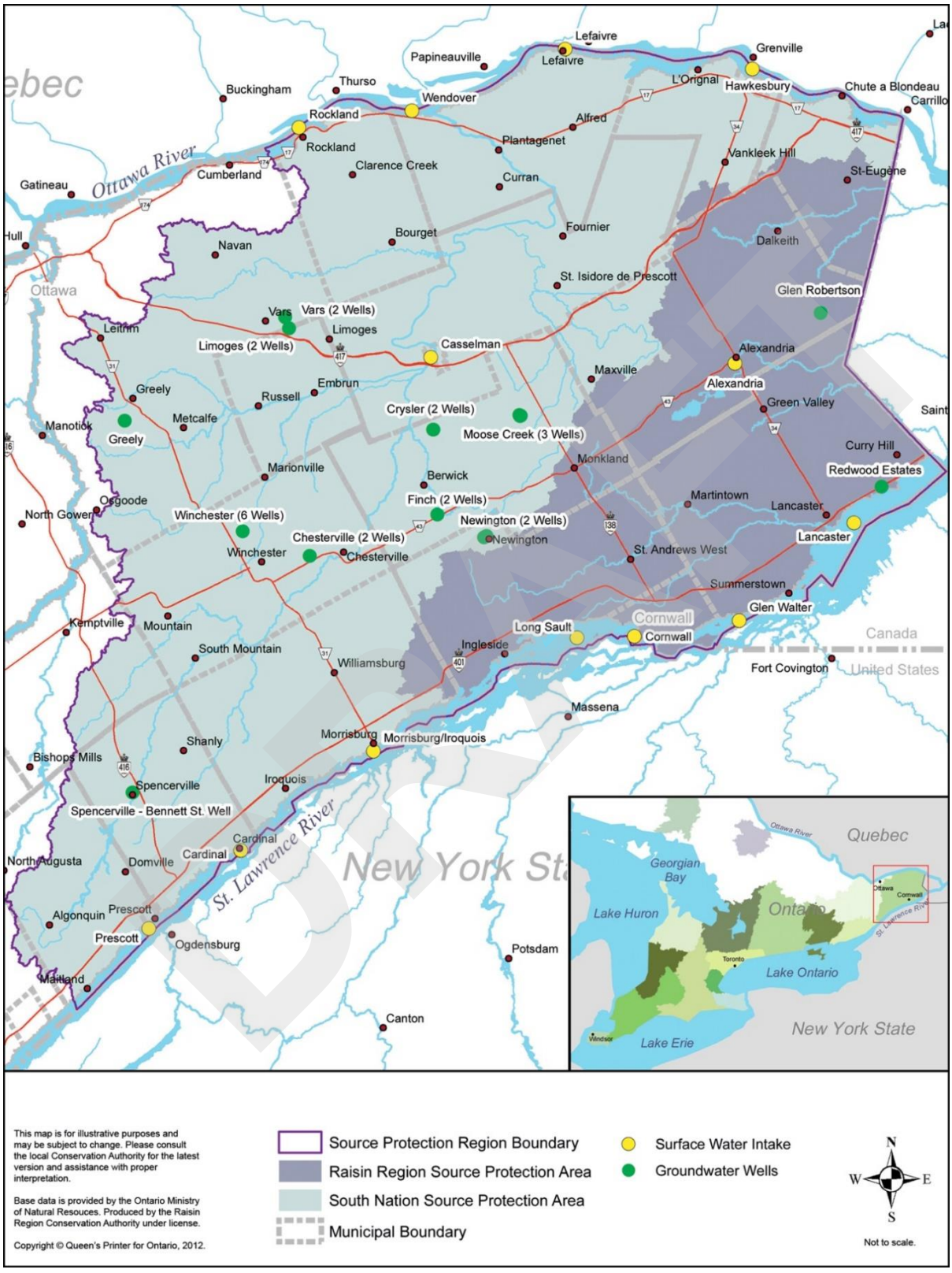
List of Maps

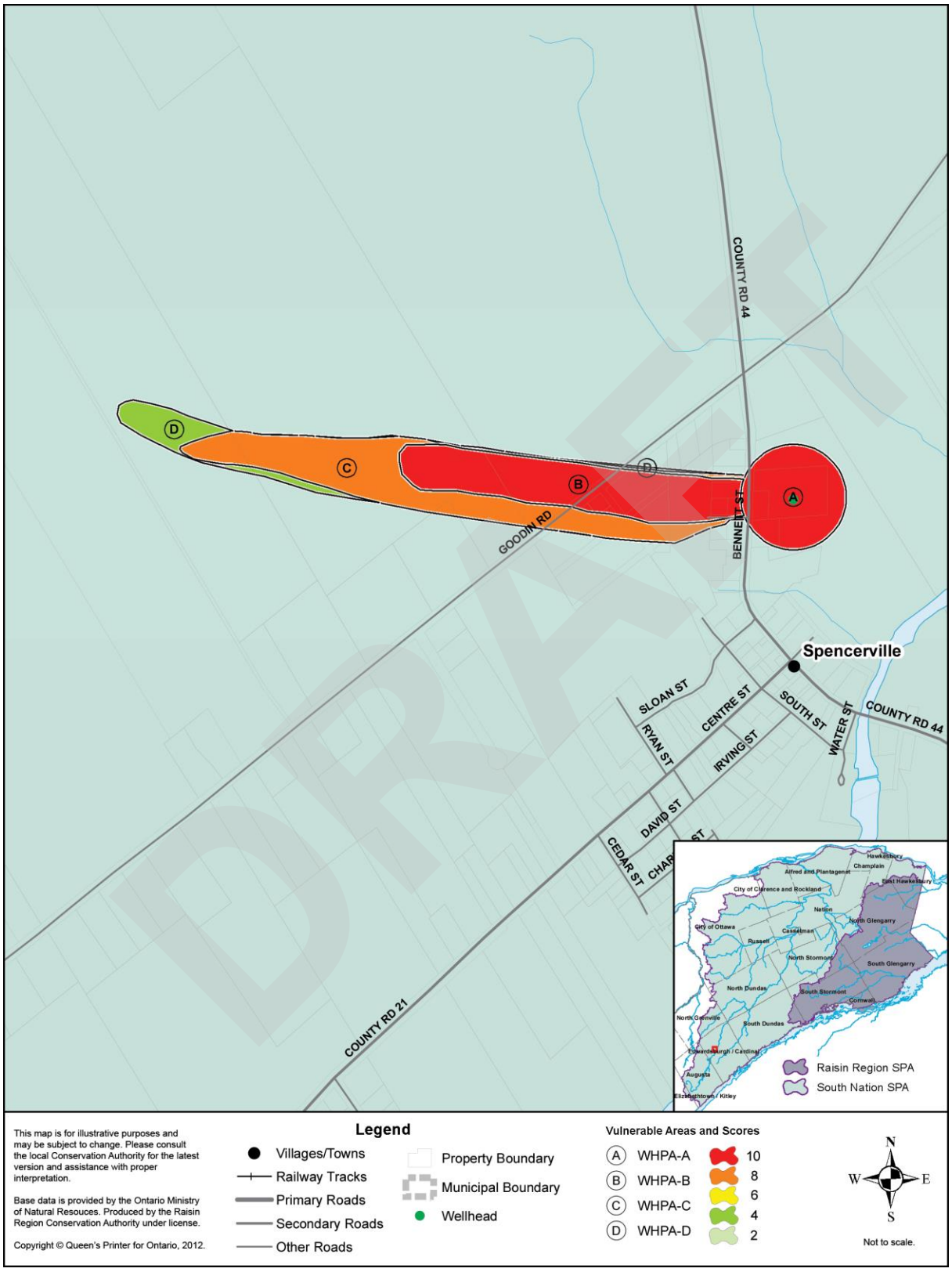
Map 1: Raisin-South Nation Source Protection Region



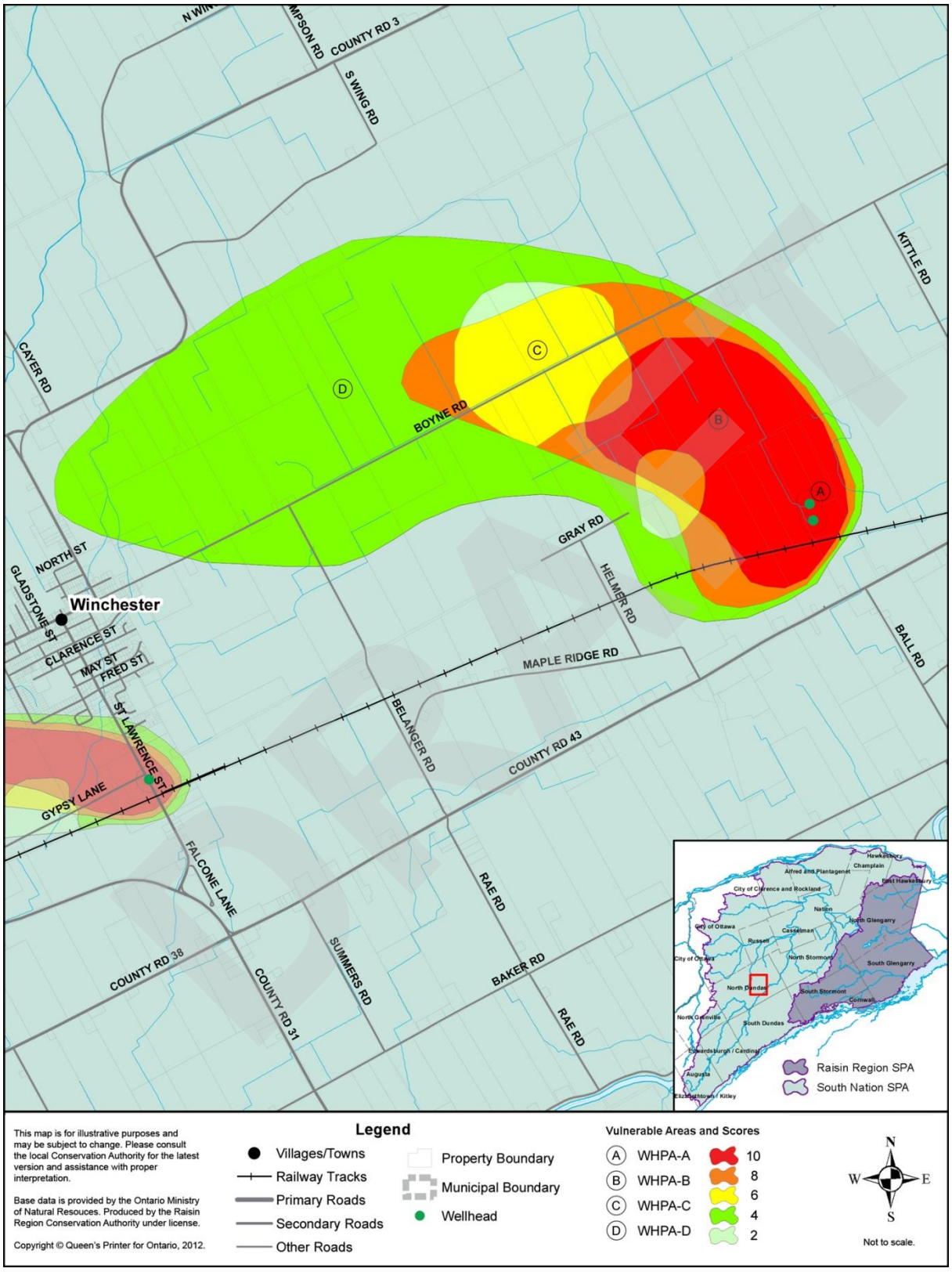
Map 2: Drinking Water Systems



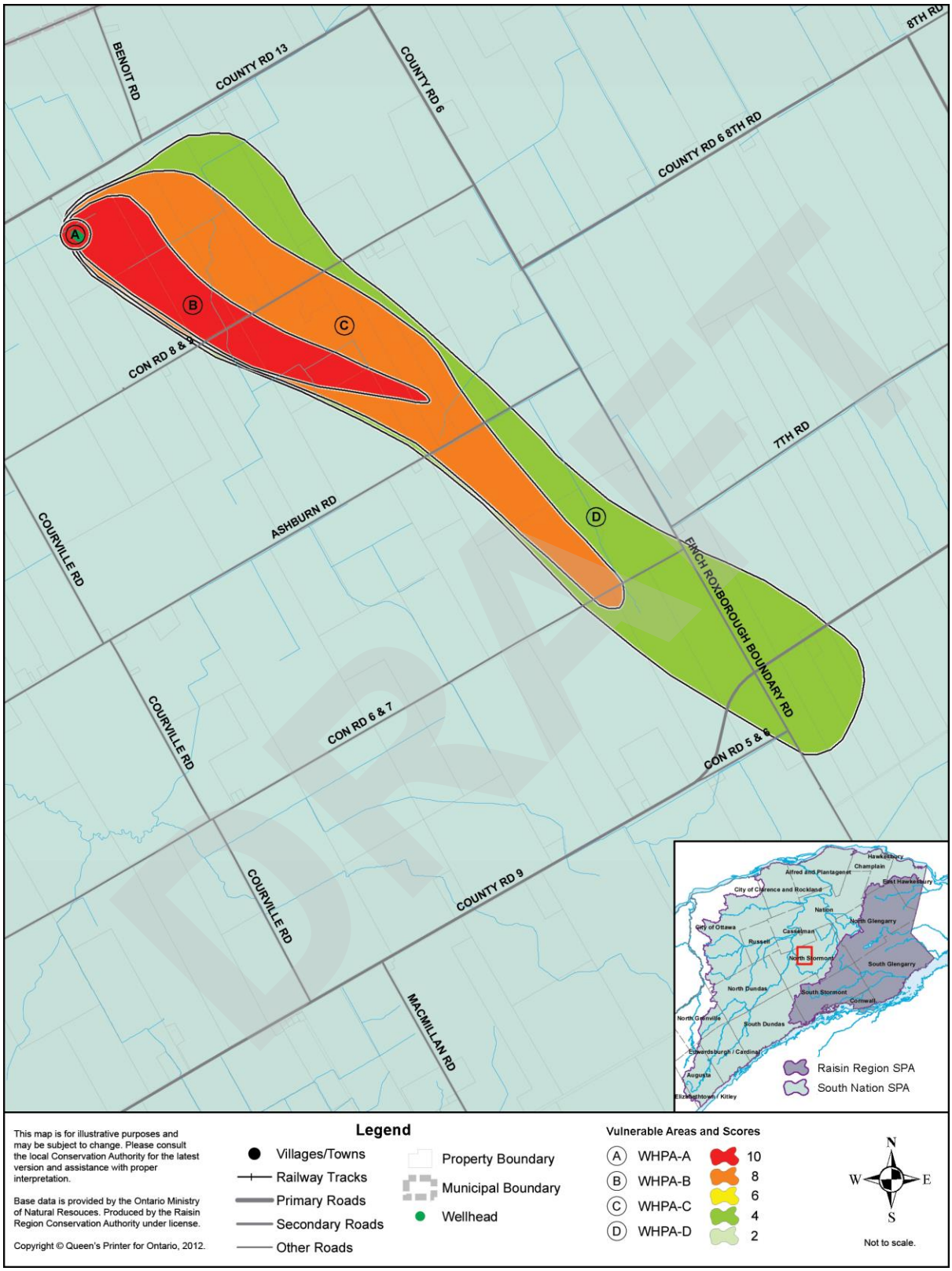
Map 3: Vulnerable Areas – Bennett Street, Spencerville



Map 4: Vulnerable Areas – Chesterville



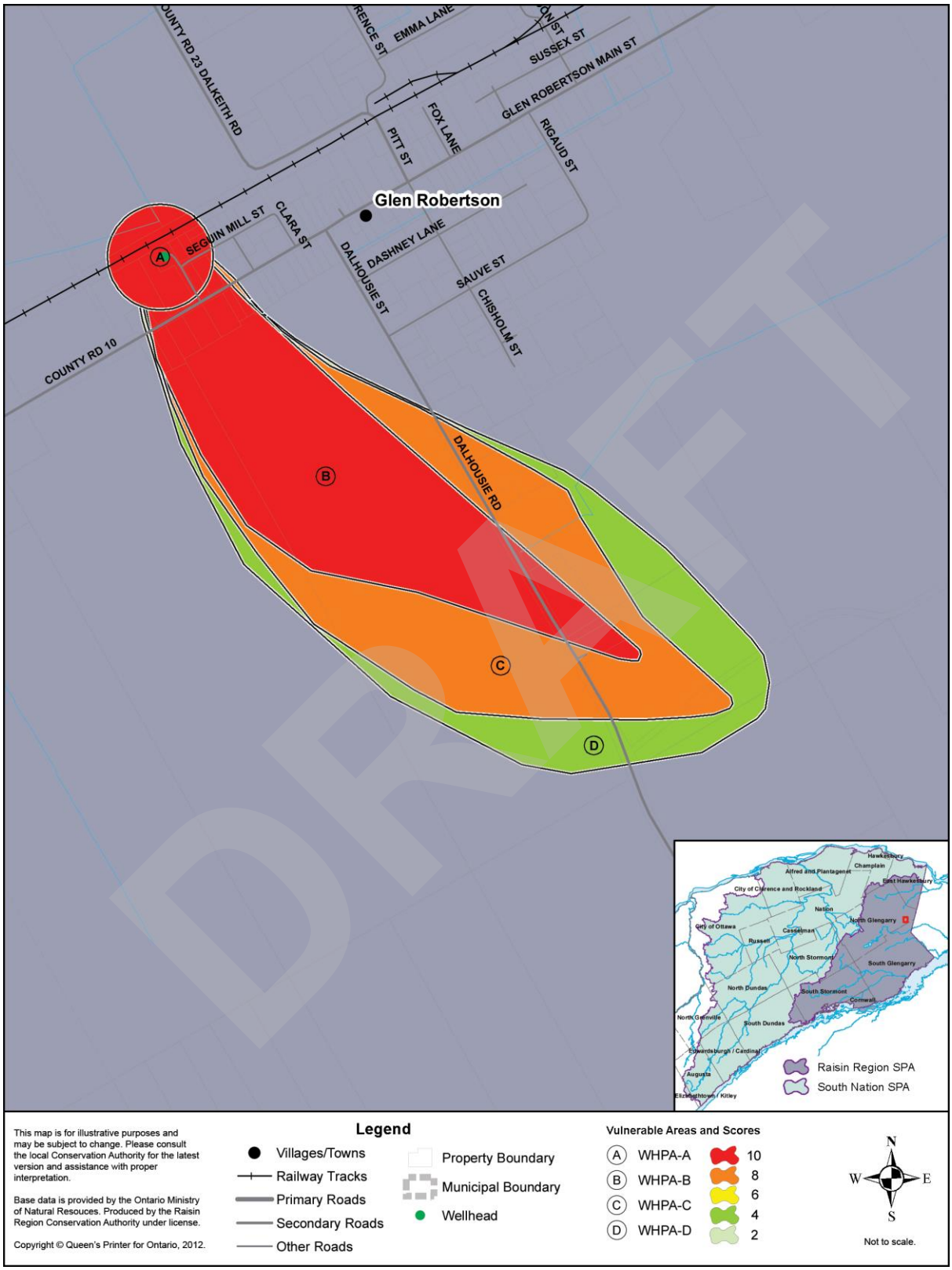
Map 5: Vulnerable Areas – Crysler



Map 6: Placeholder (left blank intentionally)

Map 7: Vulnerable Areas – Finch

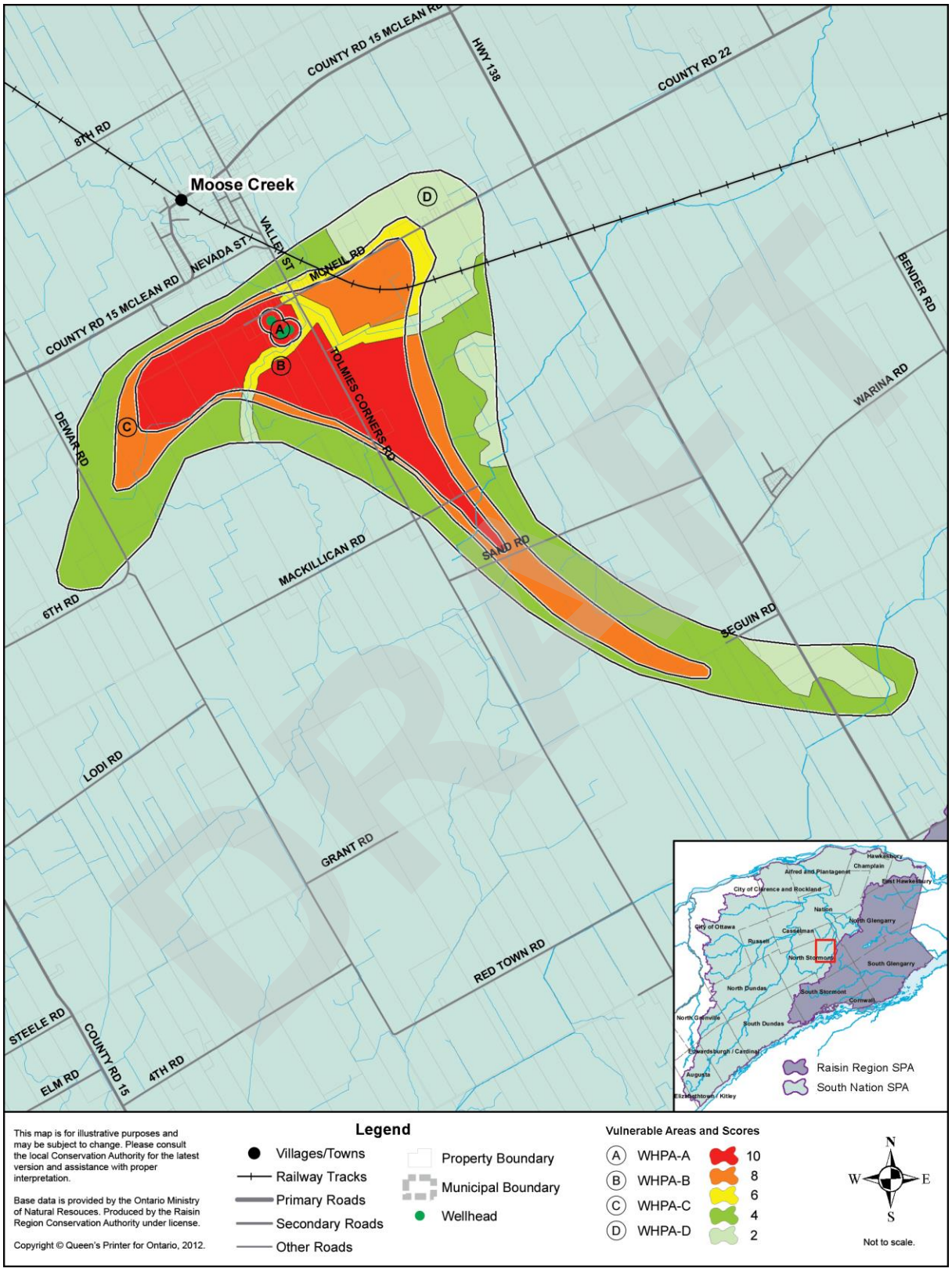
Map 8: Vulnerable Areas – Glen Robertson



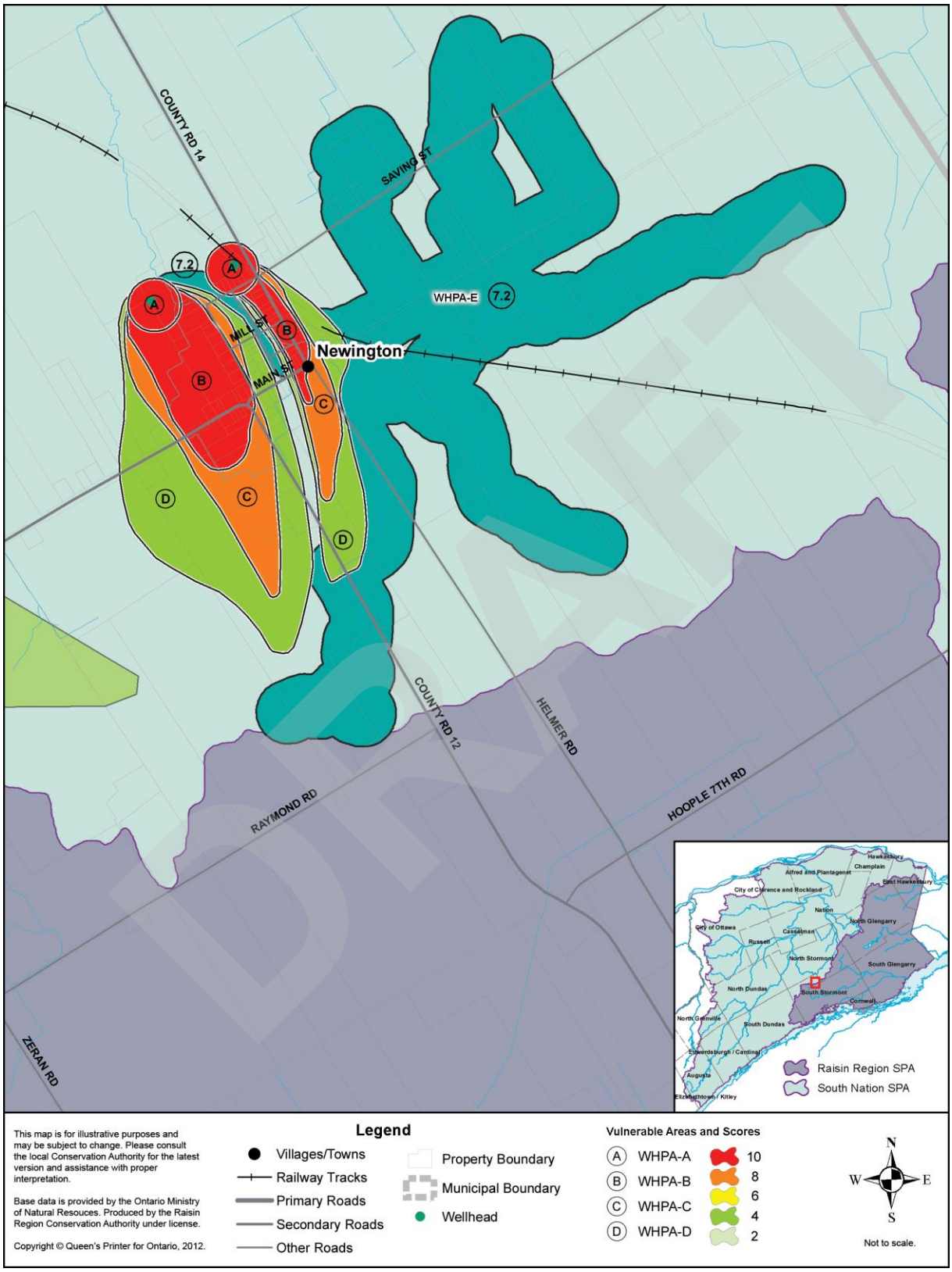
Map 9: Vulnerable Areas – Greely

Map 10: Vulnerable Areas – Limoges

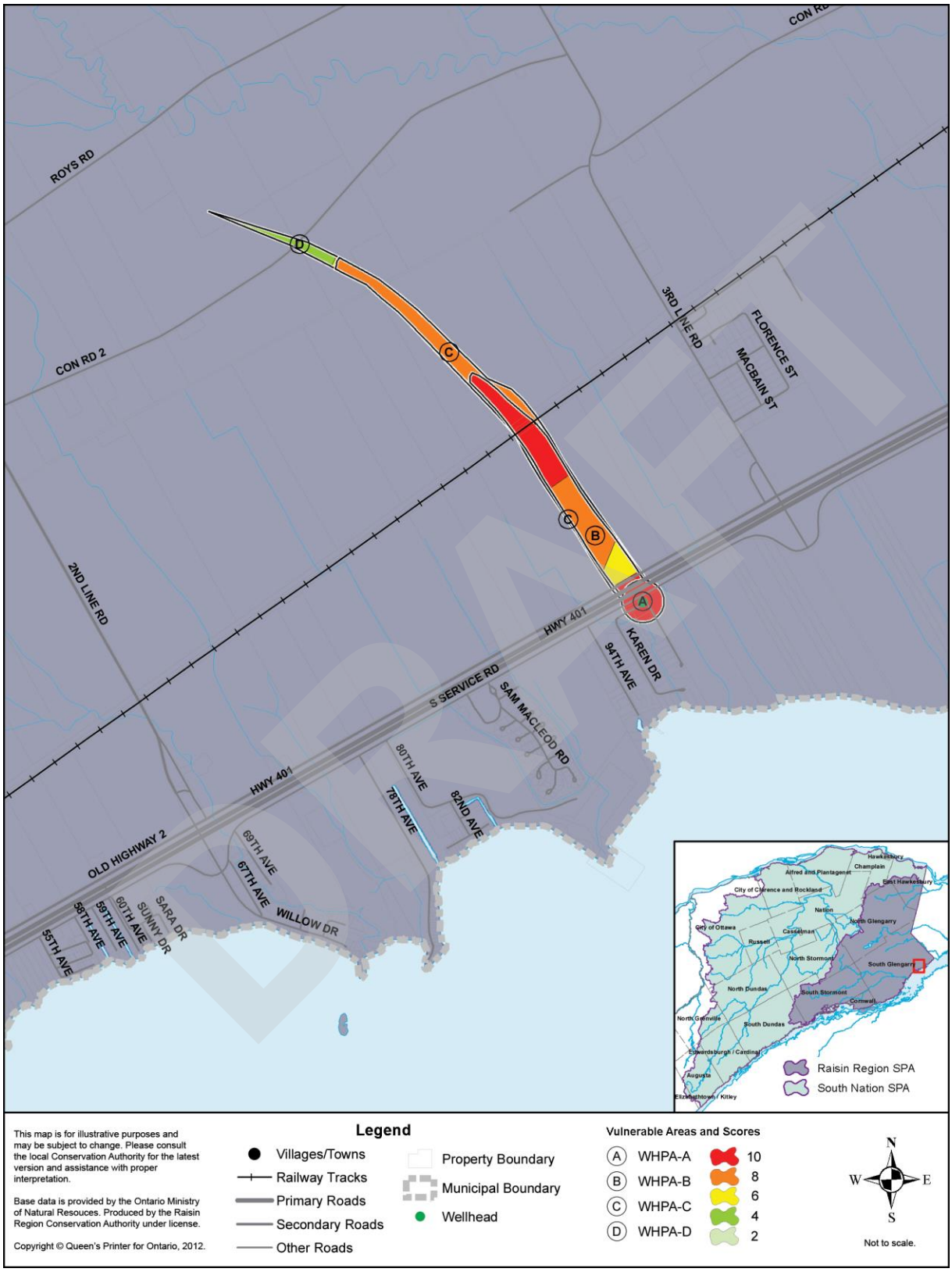
Map 11: Vulnerable Areas – Moose Creek



Map 12: Vulnerable Areas – Newington

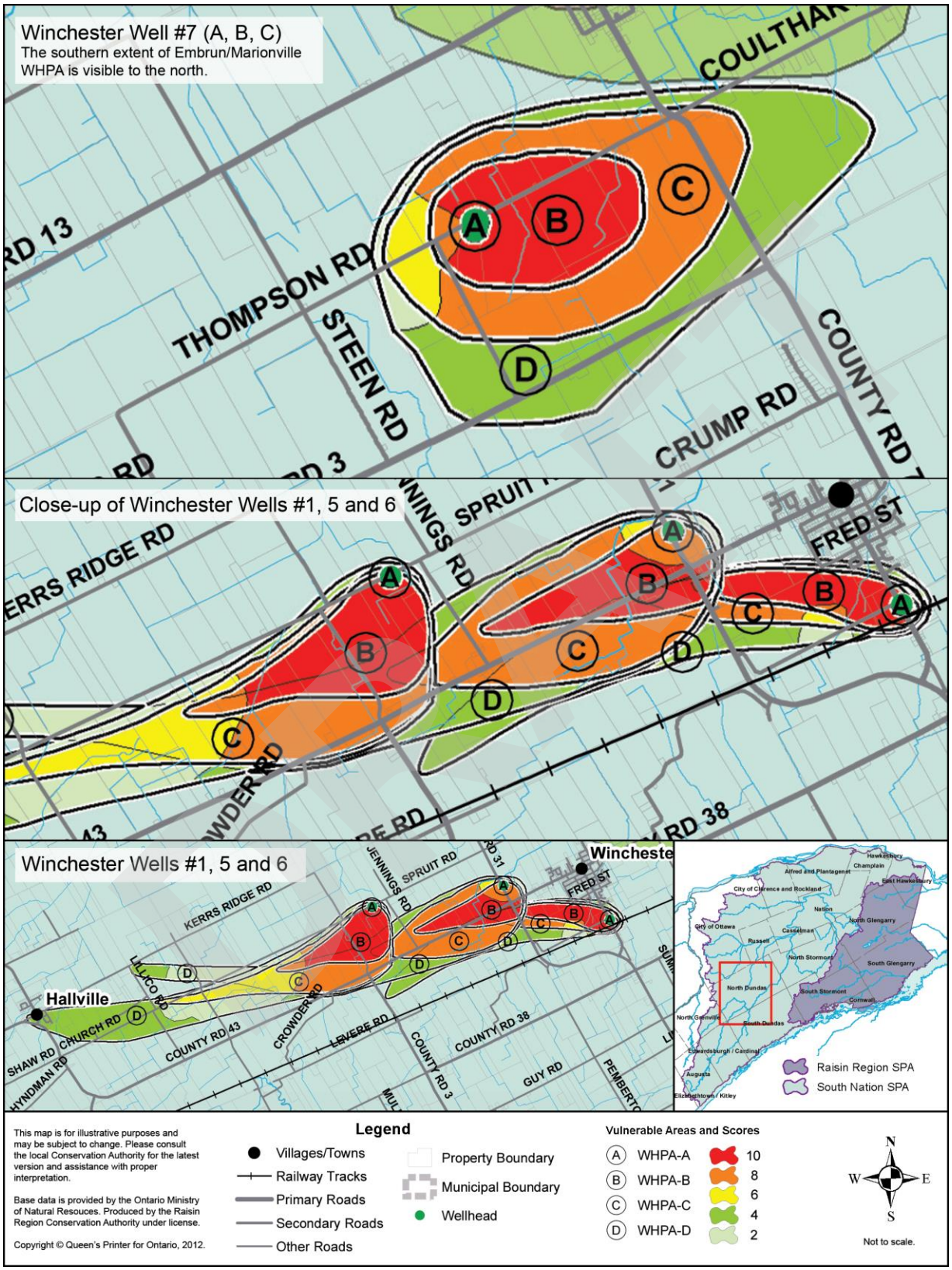


Map 13: Vulnerable Areas – Redwood Estates

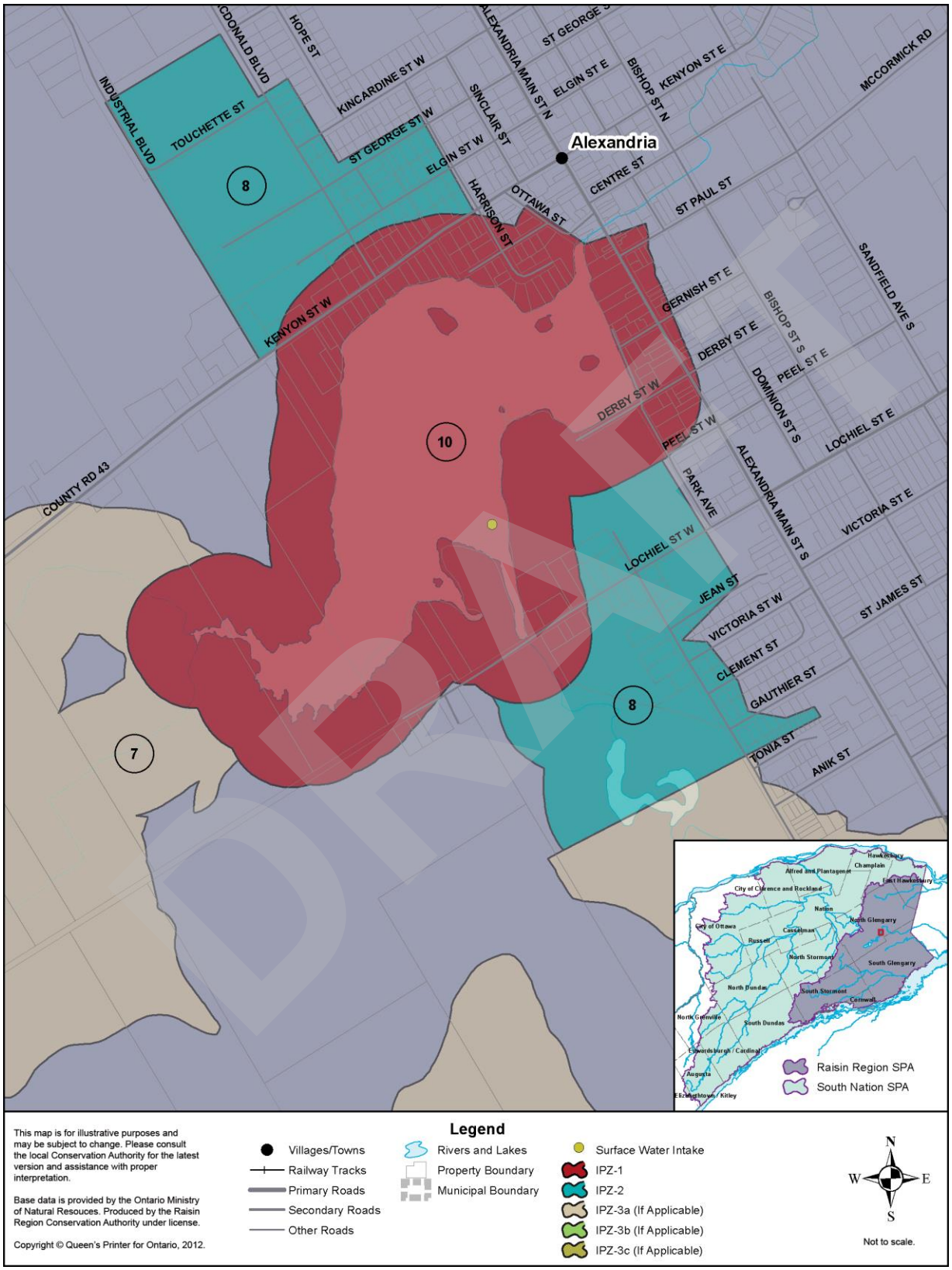


Map 14: Vulnerable Areas – Vars

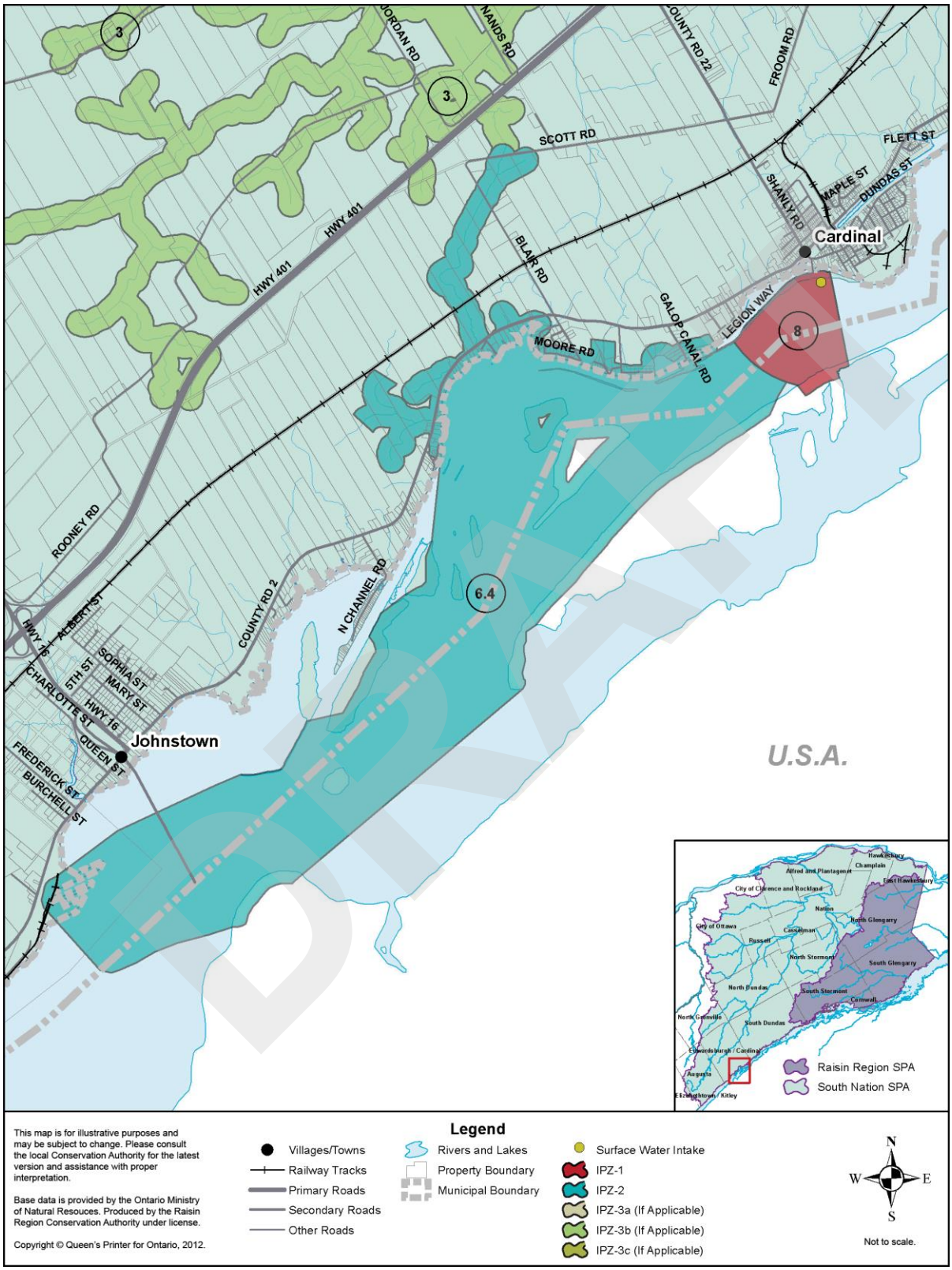
Map 15: Vulnerable Areas – Winchester



Map 16: Vulnerable Areas – Alexandria

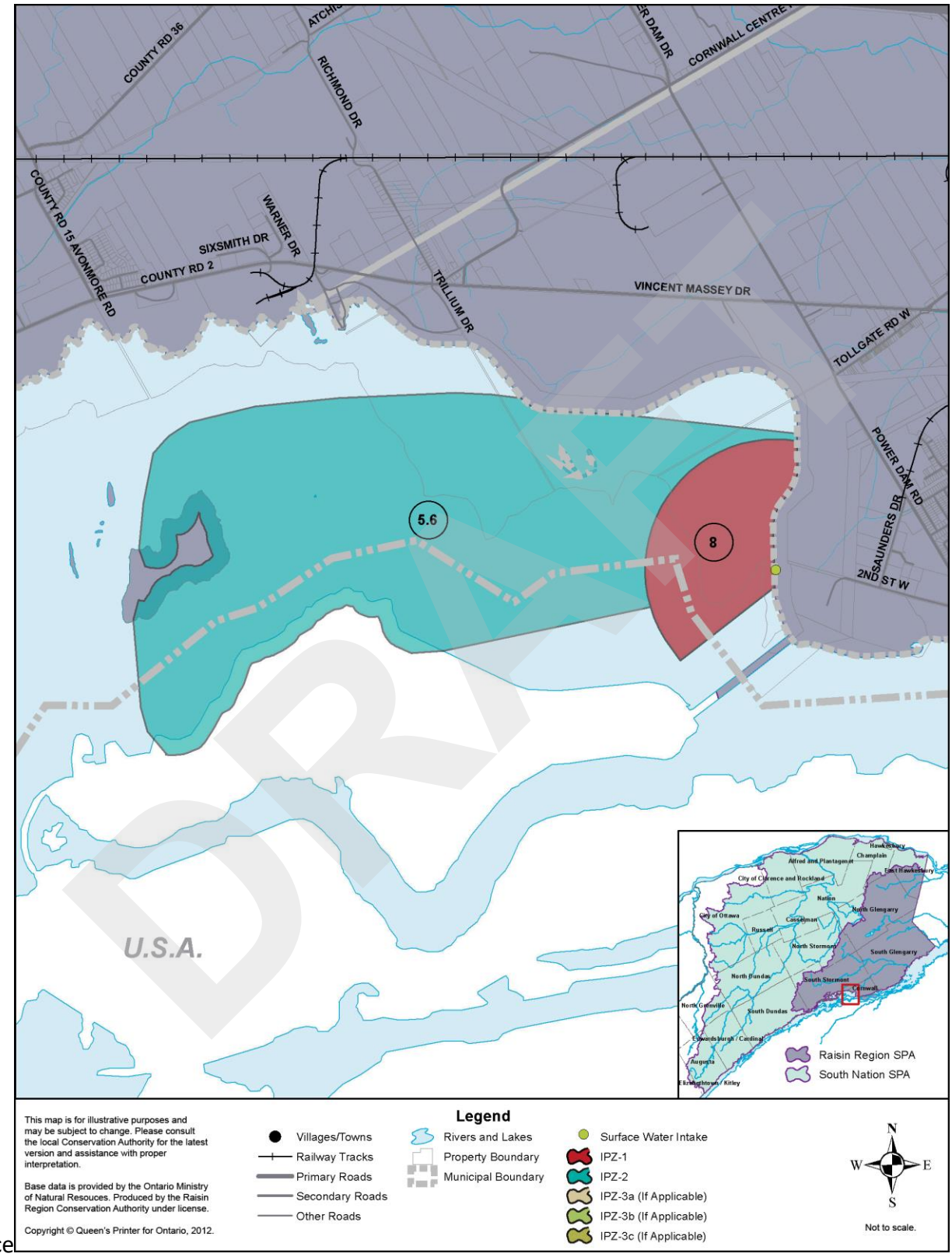


Map 17: Vulnerable Areas – Cardinal



Map 18: Vulnerable Areas – Casselman

Map 19: Vulnerable Areas – Cornwall



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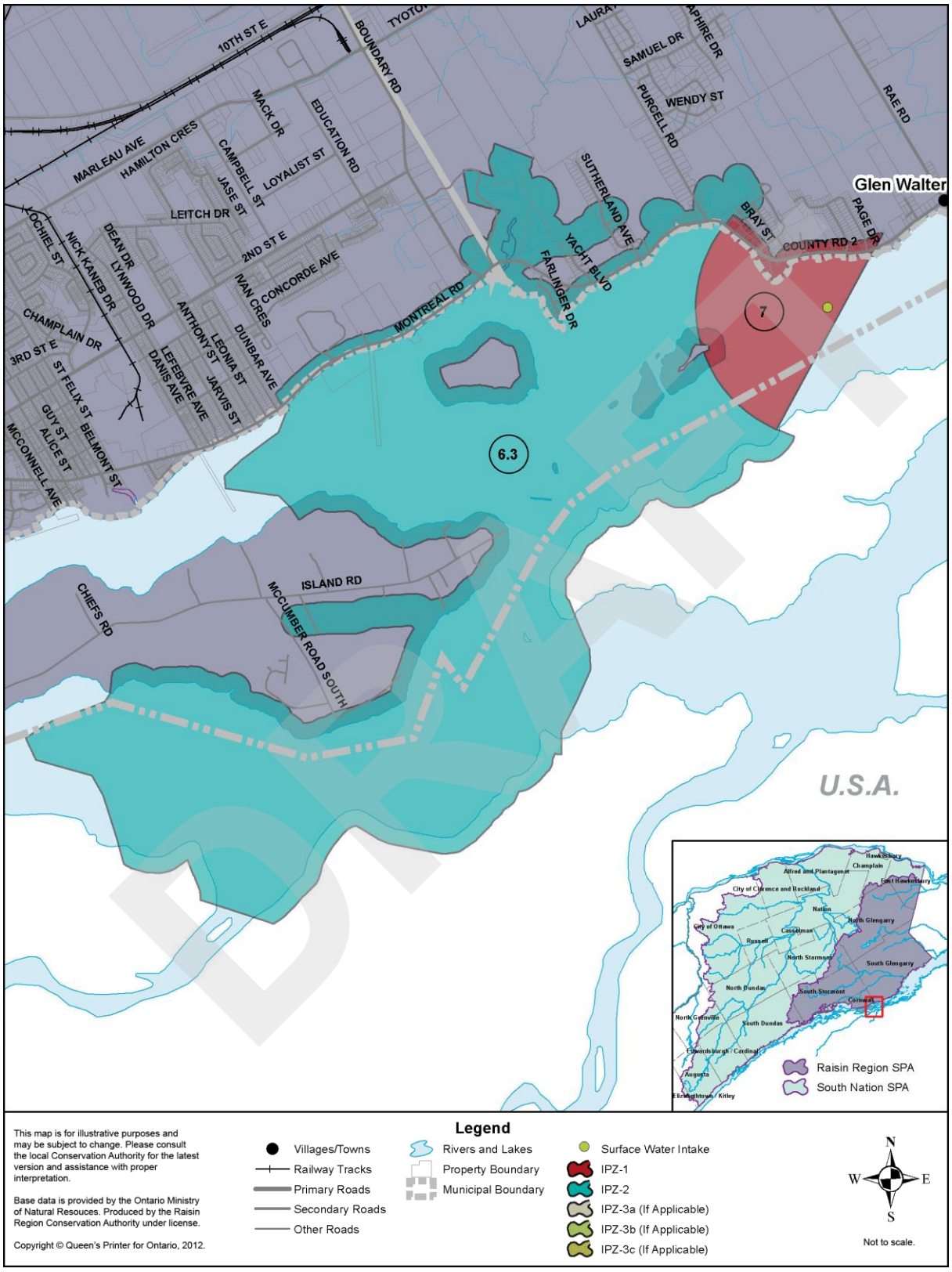
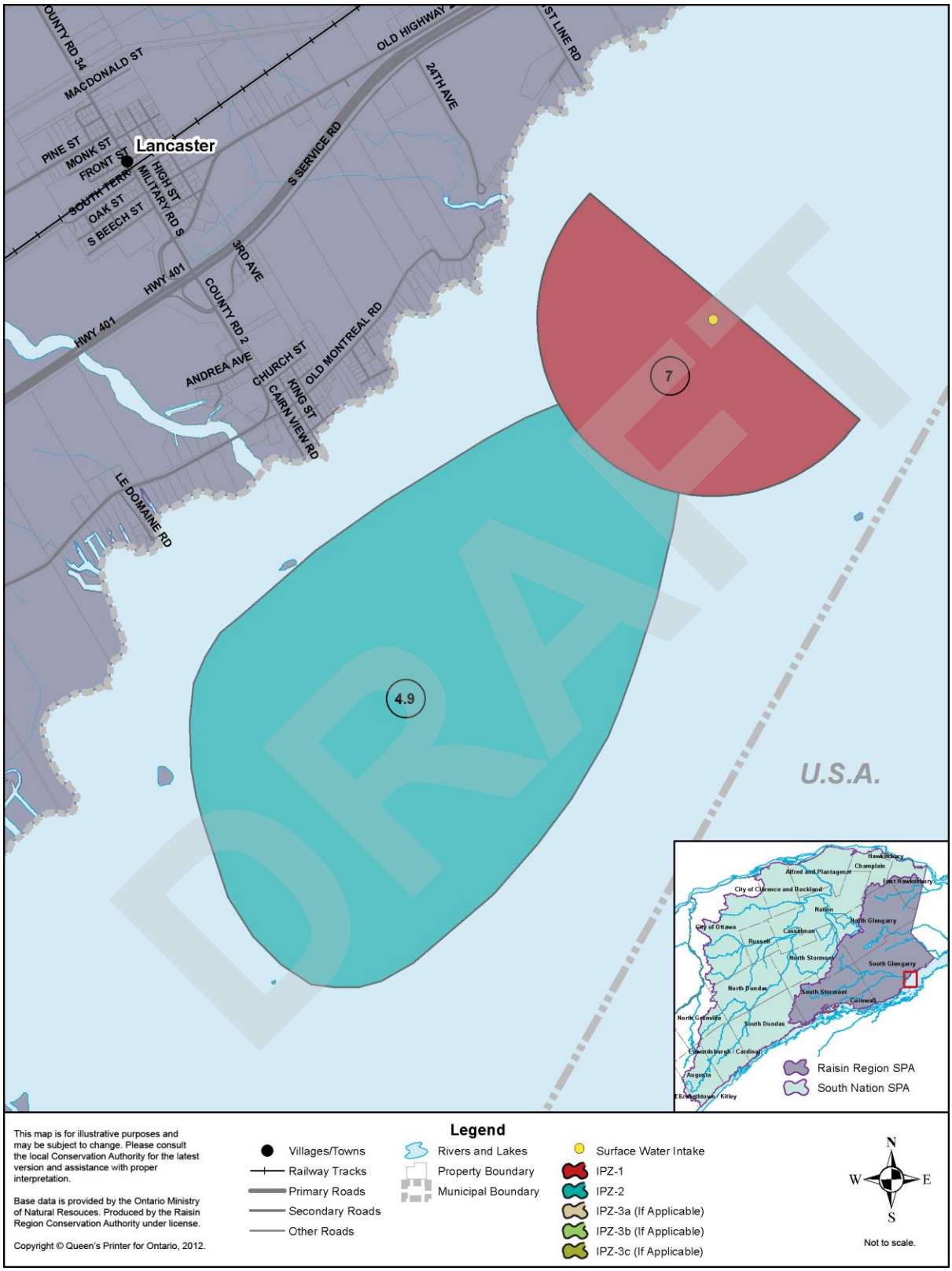
Map 20: Vulnerable Areas – Glen Walter

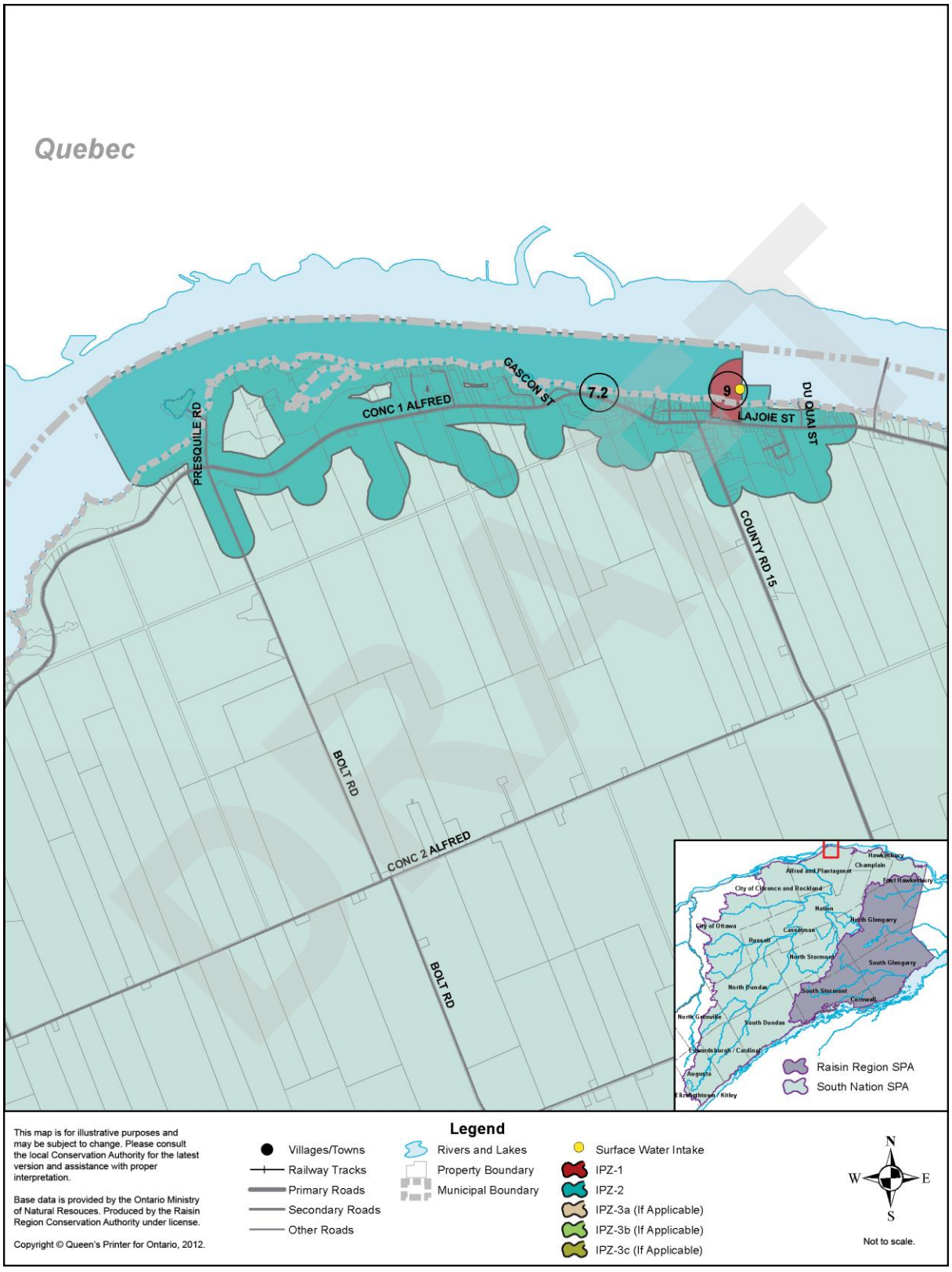


Map 21: Vulnerable Areas – Hawkesbury

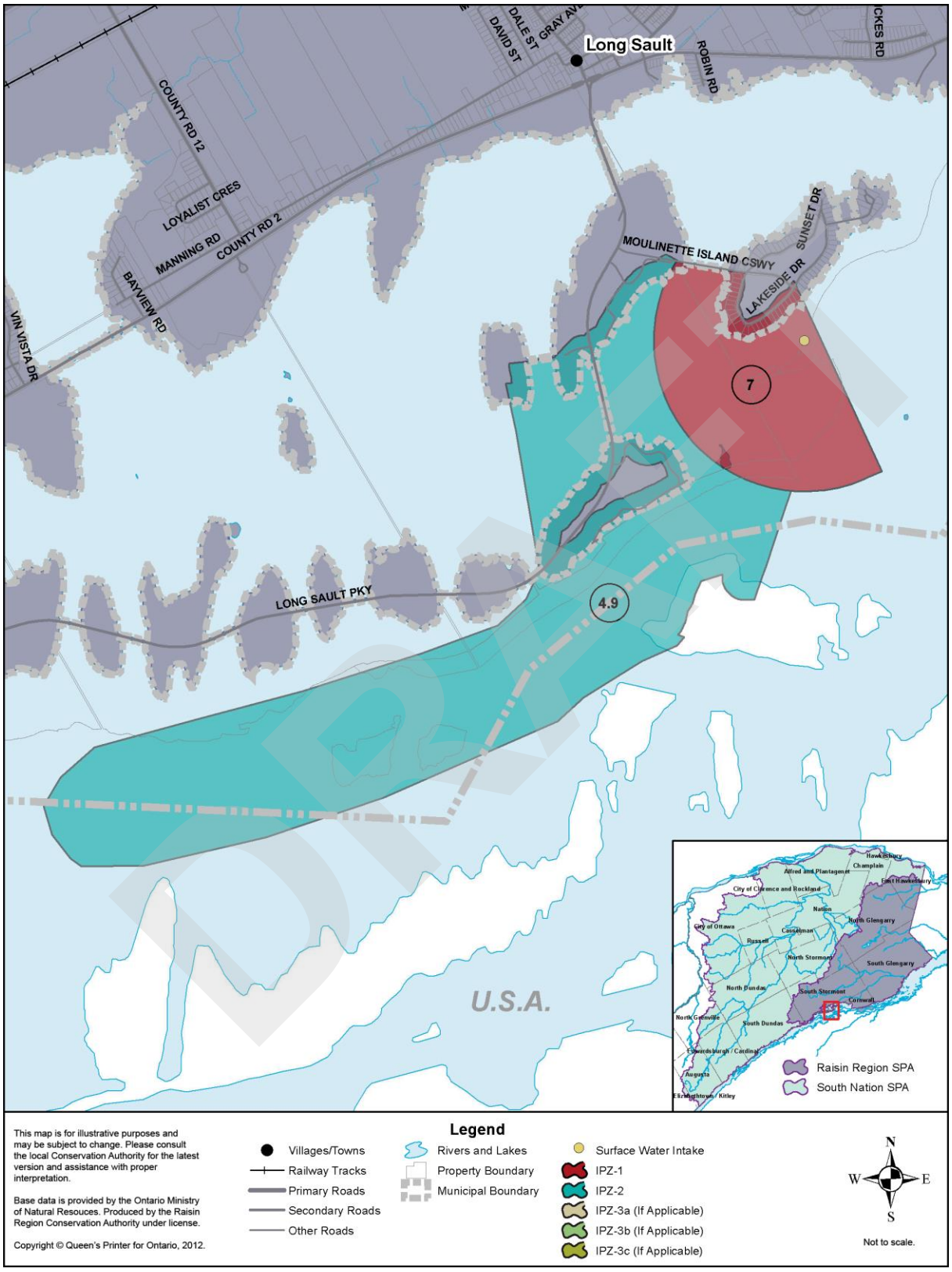
Map 22: Vulnerable Areas – Lancaster



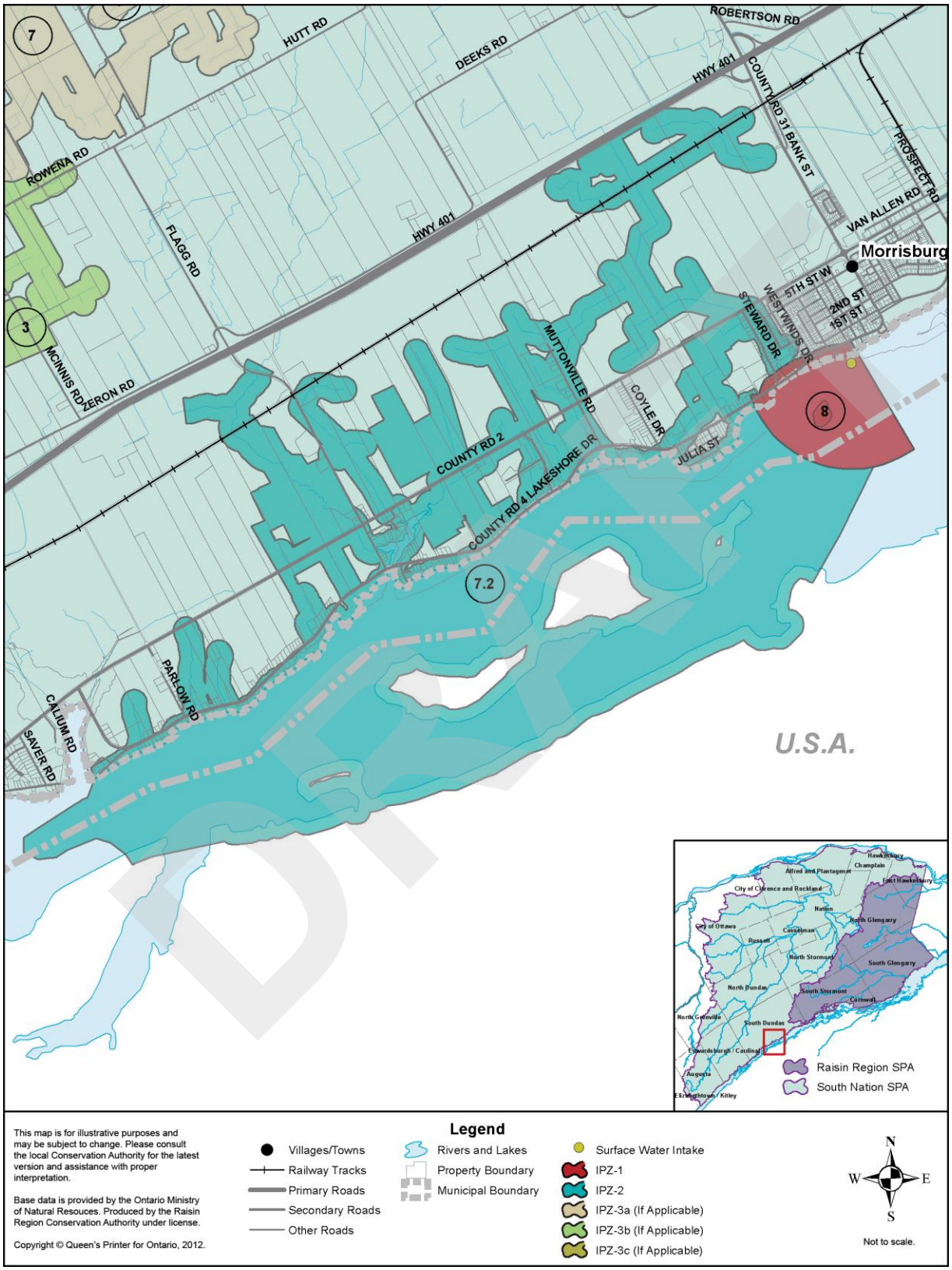
Map 23: Vulnerable Areas – Lefaivre



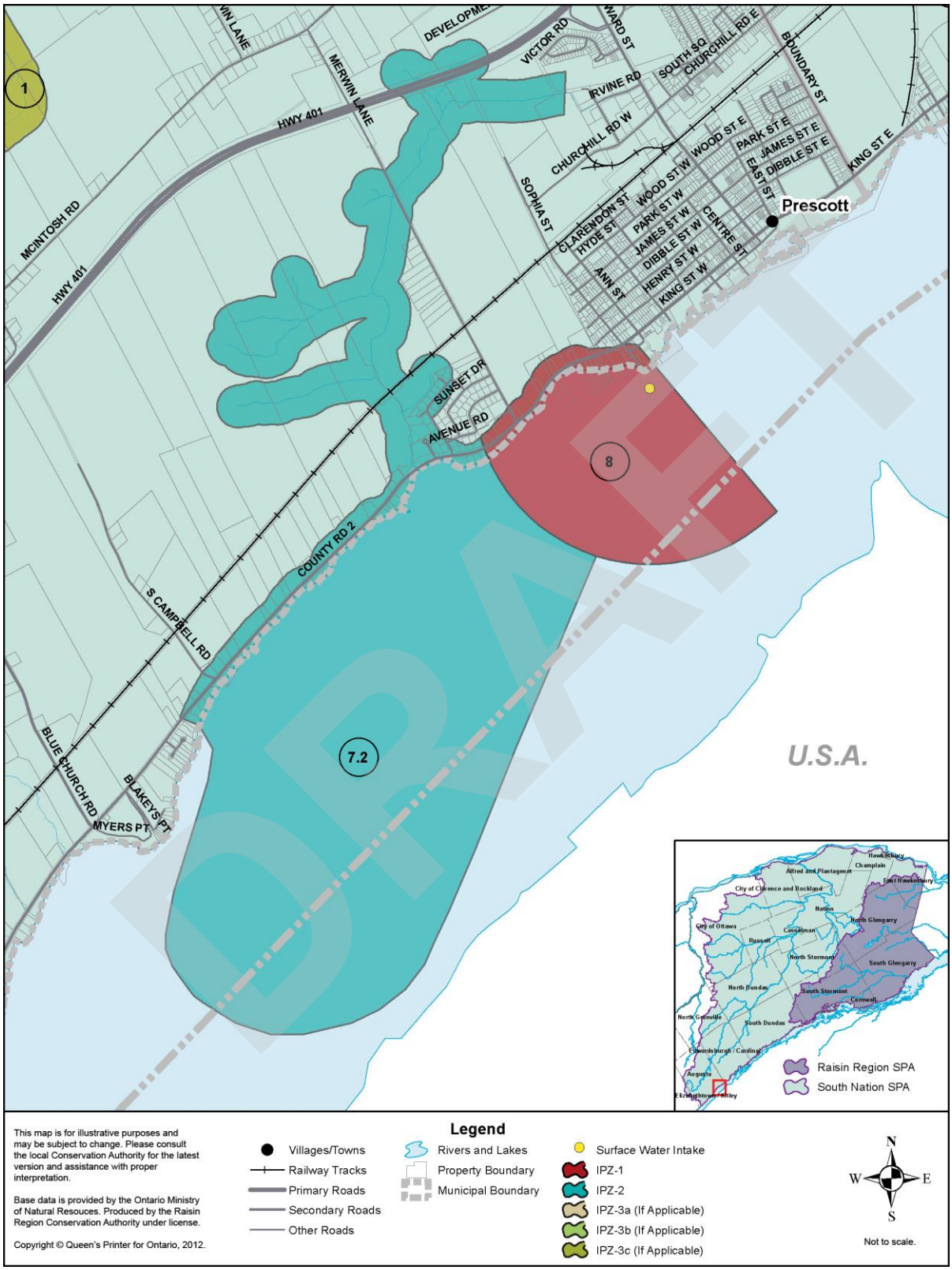
Map 24: Vulnerable Areas – Long Sault



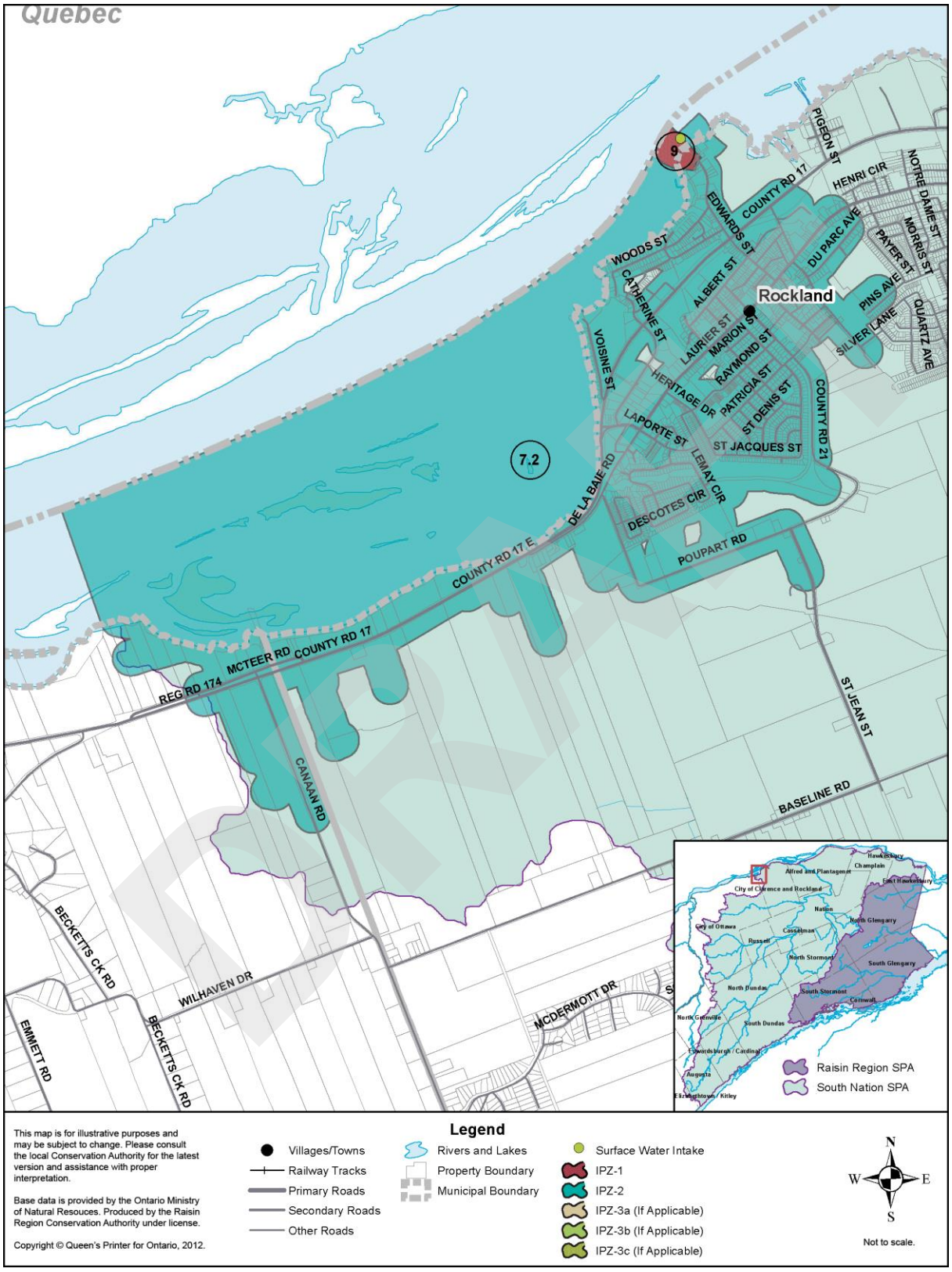
Map 25: Vulnerable Areas – Morrisburg



Map 26: Vulnerable Areas – Prescott



Map 27: Vulnerable Areas – Rockland



Map 28: Vulnerable Areas – Wendover