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

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

South Nation Conservation
de la Nation Sud

CASSELMAN

Drinking Water Source Protection

Ontario's Clean Water Act helps protect drinking water from source to tap by preventing contaminants from entering sources of drinking water like lakes, rivers and aquifers. Scientific studies were completed in 26 communities across our region to determine the local drinking water source. These studies also identify the activities that could adversely impact the quality of the drinking water source. The technical studies can be found in the comprehensive *Assessment Report.*

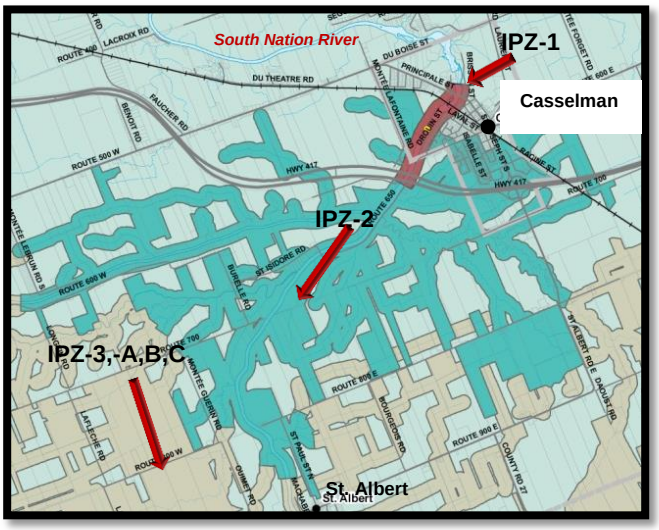
Casselman

The Village of Casselman's municipal water intake is located in the South Nation River, off Drouin Street south of the railway bridge. The intake crib is located approximately in the middle of the river at a depth of 7 m below mean river level. Raw water is drawn through a mesh screen at the intake and flows into a raw water well which is located below the plant on the southeast bank of the river in the Village. Owned and operated by the Corporation of the Village of Casselman, the municipal water treatment system serves approximately 2,835 residents.

Casselman Intake (South Nation River)

What is an Intake Protection Zone?

Surface water intakes draw raw water from rivers or lakes to provide drinking water. An Intake Protection Zone (IPZ) is an area of water or land that is located within a specific distance of an intake. Intake protection zones in smaller bodies of water may also include smaller rivers or tributaries.



Casselman Intake Protection Zones (IPZs)

IPZ-1: This is the area closest to the intake and is the area of highest concern because contaminants entering this zone can reach the intake quickly with little or no dilution.

IPZ-2: Considered the secondary protection zone, this area is calculated based upon how far water can travel in a two-hour time period. The allocation is determined by viewing flows, wind, and transport pathways.

IPZ-3: This includes the South Nation River, related tributaries, drainage features and wetland areas. IPZ-3 was divided into A, B, and C sub categories due to the different potential impacts of these zones on water quality at the intake. The size of IPZ-3 is directly correlated to the size of the contributing size of the watershed area.

This is a summary. For more information on Source Protection in this region, please visit www.yourdrinkingwater.ca.

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Vulnerability Scores

Vulnerability scores are used to indicate how at risk the drinking water source is to contamination. Scores in the Assessment Report are based upon the features of each intake. Characteristics such as the depth of the intake, distance of the intake from land, and the past water quality history affect its vulnerability. The higher the vulnerability score, the higher the level of concern for possible source water contamination, with a score of 10 being the highest score. The following table summarizes the vulnerability scores for each IPZ area.

Vulnerable Area	Vulnerability Score
IPZ-1	10
IPZ-2	9
IPZ-3A	7
IPZ-3B	3
IPZ-3C	1

Existing Water Quality

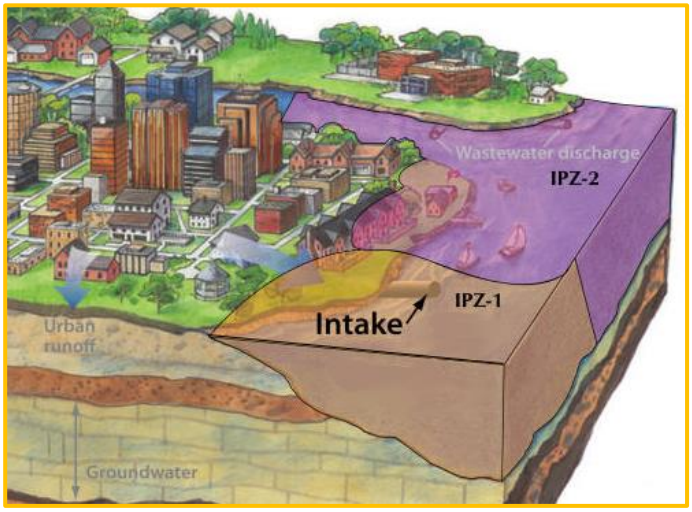
An issues evaluation was undertaken and five drinking water parameters were identified as potential issues for the drinking water source: E. coli, Manganese, Aluminum, Sodium and Total Phosphorous. At this time, the issues contributing area is not confirmed. The delineation of these issues may be considered within an updated Assessment Report.

Drinking Water Threats

There are certain activities which have been identified by the province as threats to drinking water sources. An activity may be considered a significant threat based on various circumstances: proximity to the well, vulnerability of the IPZ and the nature of the activity.

The following table lists the significant threat activities that pose a risk to the drinking water source in this area.

Drinking Water Threat
Waste Disposal Sites
Sewage Works
Agricultural Activities
Pesticides
Salt and Snow
Fuel



What is Next?

The Raisin-South Nation Source Protection Committee has completed its Source Protection Plan in consultation with local municipalities and stakeholders. This committee is made up of community members representing the public, farmers, industry, business and local municipalities.

The Source Protection Plan identifies ways to protect the quality and quantity of municipal drinking water sources in this part of eastern Ontario. The Plan addresses existing threats to drinking water and contains policies to prevent future risks.

The South Nation and Raisin Region Conservation Authorities will continue to work with municipalities and property owners to ensure local drinking water is safe.

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