



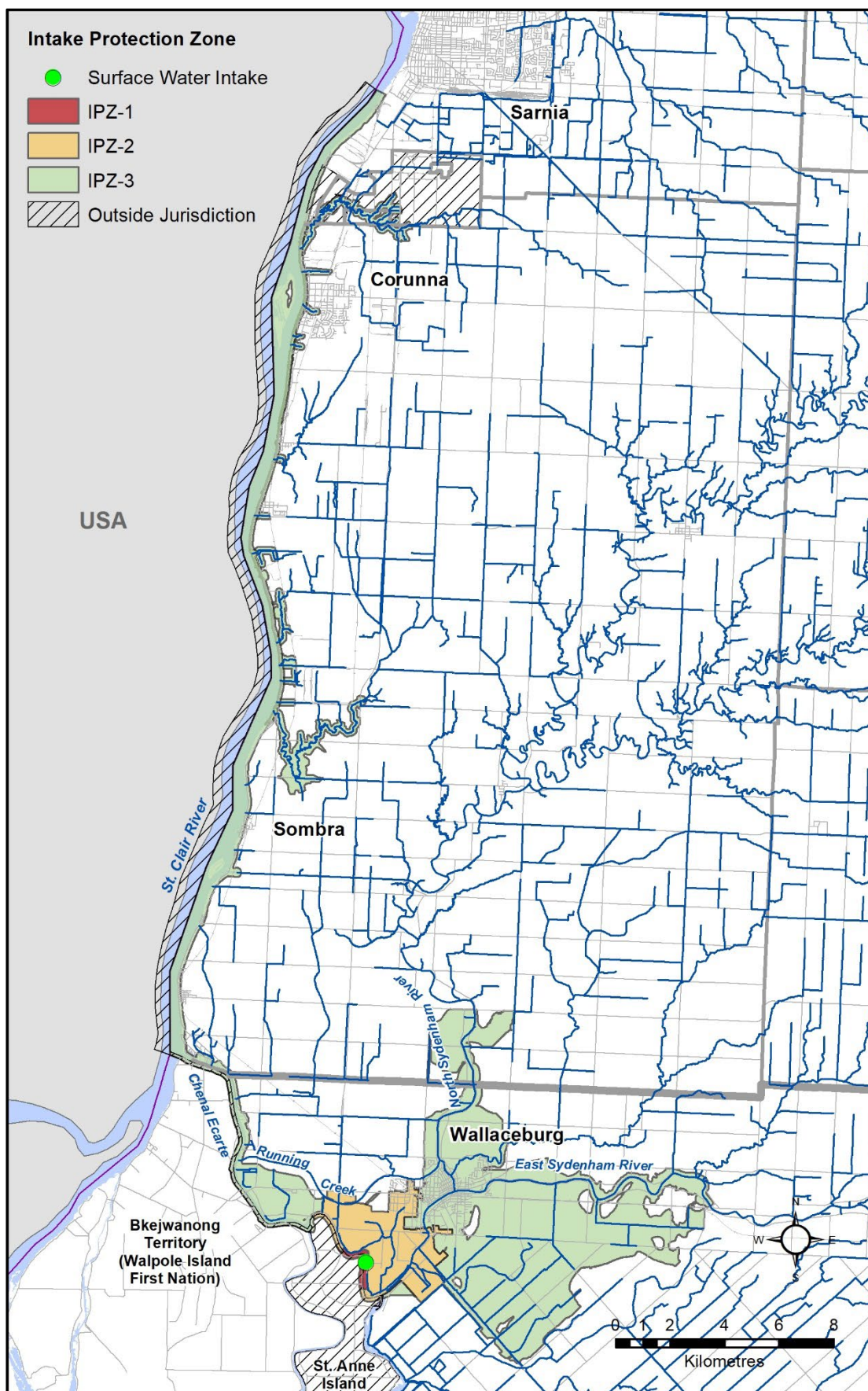
## Wallaceburg Water Treatment Plant Intake

### Intake Protection Zone (IPZ)

The area surrounding the intake is considered the most vulnerable to various types of threats which have the potential to impact the source of drinking water. To assist with the protection of source water, an intake protection zone has been established surrounding the intake. The IPZ for the Wallaceburg Water Treatment Plant is comprised of three areas: IPZ-1, IPZ-2 and IPZ-3. IPZ-1 is the most vulnerable area and is a 1km delineated semi-circle around the intake. The second zone, IPZ-2, is the area in which a contaminant would take two hours to reach the intake. This is the time required for the water treatment operators to reach and close the intake. IPZ-3 is a modeled area where under extreme circumstances, a fertilizer and/or fuel spill would result in serious deterioration of the water quality at the intake. This is called the Event Based Area (EBA) and also includes the IPZ-1 and IPZ-2.

### What Is Vulnerability?

Risks to sources of drinking water are assessed based on the vulnerability of the area surrounding the surface water intake. A zone's vulnerability is determined by land cover, soil type and permeability, amount of land, and the presence of transport pathways, as well as the intake depth, distance from shore and the number of issues at the intake. A vulnerability score of 8 or higher within the IPZ indicates that certain activities pose a significant threat to the source of drinking water. A vulnerability score between 4 and 8 indicates activities pose a moderate to low threat. For the Wallaceburg intake, the IPZ-1 has a vulnerability score of 9.0 and the IPZ-2 has a score of 7.2.



## How Are the Risks Managed?

The Thames-Sydenham and Region Source Protection Committee has developed policies for all significant threat activities that currently exist or that could exist in the future. These policies are intended to ensure the activity ceases to be or never becomes a significant drinking water threat, and to prohibit the establishment of new significant threats.

Risk Management Officials (RMOs) work with landowners to identify threats on their property and collaborate in the establishment of a Risk Management Plan (RMP), which regulates activities to ensure risks to drinking water are reduced or eliminated.



Once a RMP is established, a Risk Management Inspector (RMI) will continue to work with the landowner to support and guide through the compliance process. In many areas, the RMO and RMI are the same person.

For the Wallaceburg Water Treatment Plant, locations within the Event Based Area where 34,000 litres or more of fuel or 30,000 kg or more of nitrogen fertilizer are stored are considered significant threats and require a RMP.

Low and moderate threat policies have also been developed and may apply to a wide variety of activities, such as septic systems and pesticide application. These threats are mainly addressed through education and outreach.

### Drinking Water Threats and Policies

Threat	Policy	Threat	Policy
Agricultural Source Material (ASM)	2.06, 2.21, 2.22, 2.51, 2.52, 3.03	Organic Solvents	2.48, 2.49
Aircraft De-Icing	2.50, 3.03	Pesticides	2.06, 2.30 – 2.34, 3.02, 3.03
Dense Non-Aqueous Phase Liquid (DNAPL)	2.44-2.47	Road Salt	2.35
Fertilizer	2.06, 2.26, 2.52 – 2.54, 3.03	Sewage/Septic	2.06 – 2.20, 3.01, 3.03
Fuel	2.06, 2.38 – 2.43, 2.53, 2.54, 3.03	Snow Storage	2.36, 2.37
Non-Agricultural Source Material (NASM)	2.06, 2.23-2.25, 2.52, 3.03	Waste	2.04-2.06, 3.03



## Have You Seen These Signs?

Road signs have been installed throughout the province by the Ontario Ministry of Transportation and local municipalities, marking locations where roads cross over into an intake protection zone or wellhead protection area. The signs promote awareness of vulnerable areas and the need to protect sources of drinking water. The road signs also act as reminders to notify water treatment plant operators and the Spills Action Centre, available 24/7 at 1-(866)-663-8477, of spills and pollution.



For more information, contact your local Conservation Authority or visit our website.

