

Water System Fact Sheet – Ohsweken



The Clean Water Act was passed by the Ontario government in 2006 to protect the sources of municipal drinking water from contamination or overuse.

Under the Act, a Source Protection Plan will be developed by 2012 for the Grand River watershed, including the water system for Ohsweken, on the Six Nations of the Grand River Territory

As part of that work, studies have been done to map the areas where the greatest protection efforts will be made. This fact sheet explains some of the findings from those studies.

The Ohsweken water system

The Six Nations of the Grand River own and operate the Ohsweken water system. Water is taken from the Grand River through an intake located near Chiefswood Road and treated in a nearby plant. The system serves about 2,000 people in and near the village of Ohsweken.

Ohsweken Intake Protection Zones (IPZ)

The Grand River could become contaminated if a pollutant were spilled on water or nearby land upstream of the water treatment plant and flowed downstream to the intake.

When water plant operators are notified of a spill, they can close the intake and allow the spilled material to flow past. They can then re-open the intake.

An Intake Protection Zone (IPZ) is the area where pollutants may reach the intake so quickly that the operators of the water system may not have enough time to shut down the intake before the pollutant reaches it. This is the area where special care needs to be taken in the use, handling and storage of potential pollutants.

The Ohsweken Intake Protection Zone is divided into three parts. A vulnerability score, on a 10-point scale, is assigned to each part based on the speed the water flows, drainage patterns, proximity to the intake and other factors.

■ **IPZ 1** – This is the area immediately around the intake in the Grand River. It has a **vulnerability score of 10**.

■ **IPZ 2** is the area where water (and pollutants) can reach the intake in eight hours. It includes parts of the County of Brant and the City of Brantford that drain into the Grand River, streams flowing into the Grand (such as Fairchild Creek) and storm sewers in urban areas. It has a **vulnerability score of 8**.

■ **IPZ 3** includes upstream areas that are further away from the intake. **Vulnerability scores are 6 or less**.

Drinking water threats

Drinking water threats are human activities that could threaten the safety of a water supply.

These include the use and storage of **solvents, fuels, fertilizers, pesticides, manure and human waste** (e.g. in septic systems.)

The threats with the highest risk of polluting the intake are called **significant threats**.

The fact that an activity has been identified as a significant threat does not mean that it is currently harming the water source. It means that it has the potential to harm water if something should go wrong, e.g. a spill or leak.

The goal of the Source Protection Plan is to reduce the risk posed by these activities.

More than one activity on a property can be identified as a significant threat. For example, the application of both pesticides and manure on the same farm would be counted as two significant threats. The same would apply to a home which has a heating oil tank and a septic system.

Significant threats in the Ohsweken IPZ

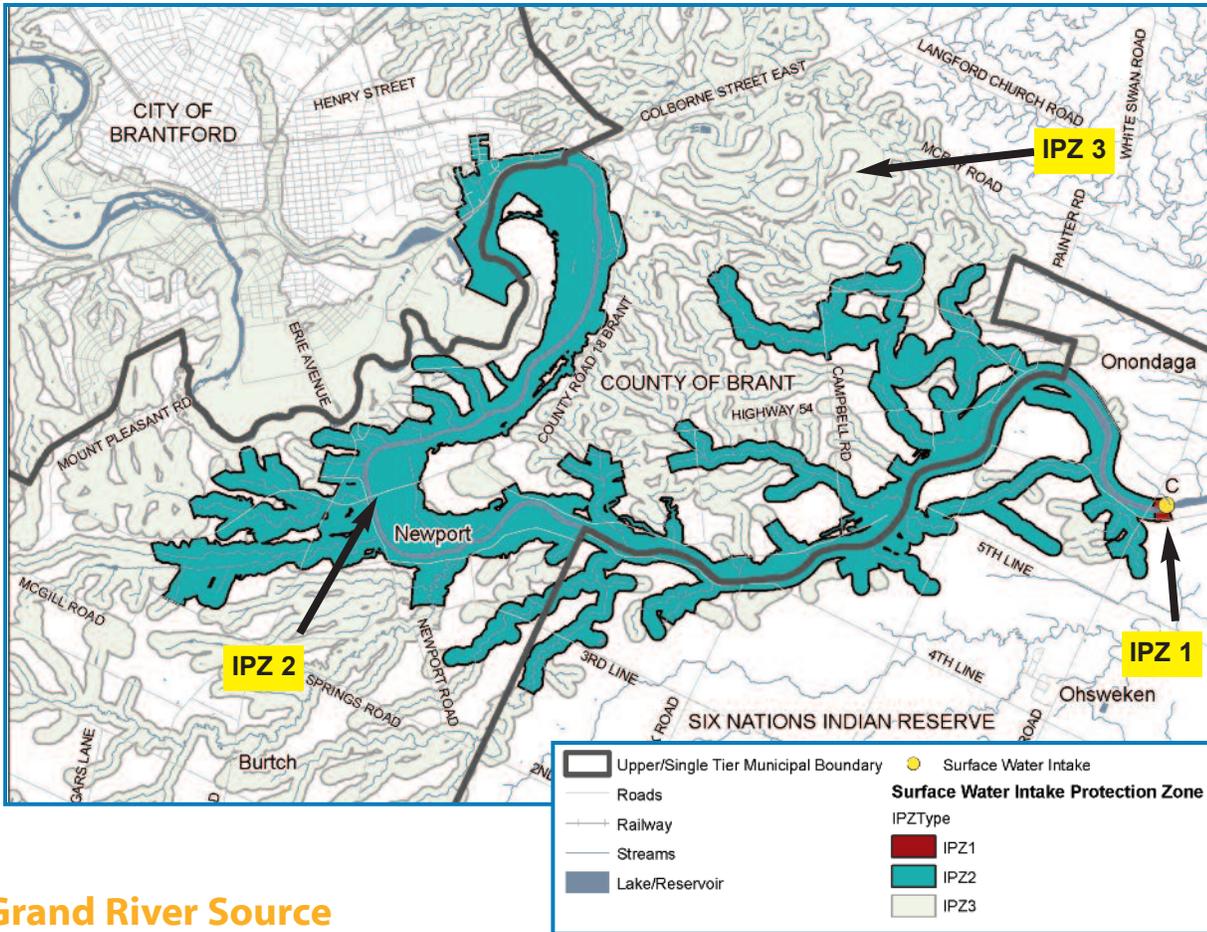
Studies have identified the human activities in the Intake Protection Zone that are classed as significant threats.

The Clean Water Act is a provincial law, therefore it only applies to significant threats outside of the Six Nations Territory. Thus, the significant threats are all located in the County of Brant or the City of Brantford.

There are 50 activities on 16 properties. They include:

- sewer and septic systems
- storage and application of manure
- application of non-agricultural source material (e.g. biosolids)
- livestock grazing or farm-animal yards





The Grand River Source Protection Plan

The purpose of the Source Protection Plan is to reduce the risk posed by significant threats located upstream of the Ohswegen water system intake in the Grand River at Chiefswood.

The plan outlines the policies and programs to be implemented by various bodies such as municipalities, provincial ministries and other agencies.

There are a variety of methods that can be used. They include:

- municipal zoning bylaws and official plans will direct development to appropriate areas
- Risk Management Plans negotiated between landowner and a municipalities that would spell out the landowners' responsibilities. For example, it may specify how a farmer will manage manure, or how a factory would store and handle chemicals.
- Education programs to show

landowners how to manage a significant threat to reduce the risk.

- Incentive programs to encourage landowners to address significant threats

The plan was scheduled to be submitted to the Ministry of the Environment in January 2013.

It will come into effect after it has been approved by the ministry.

For more information about the Grand River watershed contact:

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For more information about the Ohswegen water system contact:

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Lake Erie Source Protection Region

