DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

Ausable Bayfield Maitland Valley Source Protection Region

Help keep our water safe in intake protection zones

Hundreds of thousands of people, in Canada and the United States, get their drinking water from Lake Huron.

Your work to protect drinking water sources in intake protection zones protects public health by keeping drinking water clean.

It costs much, much less to keep chemicals and bacteria out of water sources than it does to replace a water system or clean up a local water supply that's contaminated.

Raw water is captured in the Maitland Valley and Ausable Bayfield source protection areas, for treatment, from intakes in Goderich and near Grand Bend (the Lake Huron Primary Water Supply System intake in Port Blake). The volume of water these Great Lakes intakes draw from creates a low vulnerability score. Therefore no activities have been deemed as significant threats to drinking water in these zones in this region.

There are significant threats to drinking water in those local municipalities that get their water from groundwater – water that is underground in aquifers and drawn up through wells.

Your local source protection committee has developed source protection plans. The policies in the plans are not mandatory in intake protection zones – as threat activities are not assessed as significant – but you are encouraged to consider ways you can help protect your drinking water that has Lake Huron as its source.

Protecting the area around a surface water intake means protecting the surrounding water and, in most cases, the land that surrounds the water.

Intake protection zones may include properties around the lake or on smaller feeder rivers or tributaries.

The area of water and land around the Great Lakes intake is known as an intake protection zone, or IPZ.

The Province of Ontario has required that several intake protection zones be identified:

- 1) For the area immediately adjacent to the intake
- 2) For the area further upstream where a spill might reach the intake before the plant operator can deal with it
- 3) An area that includes a larger part of the source protection area

The area of water and land in an intake protection zone is determined, under the Ontario *Clean Water Act, 2006*, by factors such as the time it would take any material spilled in, or near, the river or lake, to reach the water intake. This is called the time of travel.

To establish the second intake protection zone, technical staff examine a minimum time of travel of two hours, although it could be longer if the water treatment plant operator response time is longer.

Here are some benefits to keeping contaminants out of Great Lakes water sources:

- Protecting human health – keeping pathogens (including bacteria like deadly *E. coli O157: H7*) and chemicals out of drinking water sources, to prevent illness or death
- Not having to find new drinking water sources when old ones become contaminated
- Avoiding the need or cost to clean up contaminated water
- Ensuring a long-term supply of clean water
- Ensuring a reliable water supply and positive climate for economic growth

Visit **sourcewaterinfo.on.ca** for copies of your local source protection plans with ways you can help to protect drinking water sources. Or call us! Or, take a look at some of the ideas listed in this brochure. Thank you for all you do to protect your community's drinking water sources.

Ausable Bayfield Maitland Valley Drinking Water Source Protection Region
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Maitland Valley Source Protection Area: 519-335-3557 • Ausable Bayfield Source Protection Area: 519-235-2610

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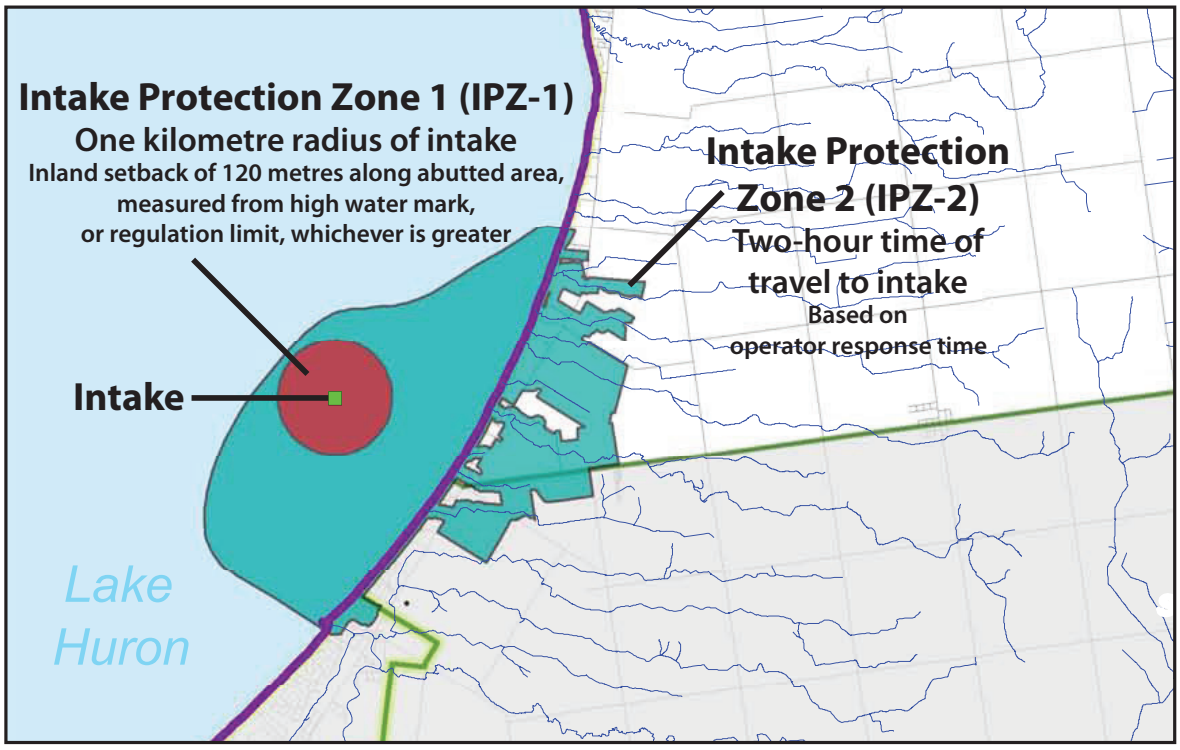


This image shows an example of a Lake Huron intake with intake protection zones one and two around it. There are no significant threats to drinking water assessed around surface water intakes of the Maitland Valley and Ausable Bayfield source protection areas. However, your local source protection committee has created drinking water source protection plans, approved by the Province of Ontario, that offer ideas on positive actions you may decide to take to protect these municipal sources of drinking water.

Most of the people in Ontario get their drinking water directly from the Great Lakes.

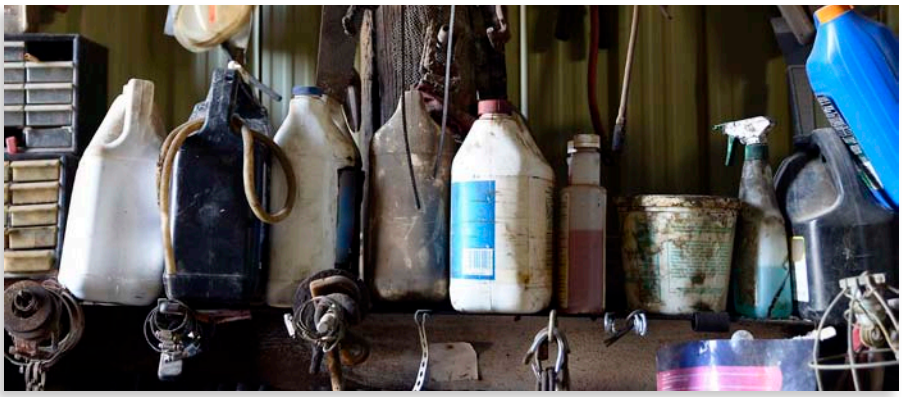
Surface water is moved through an intake pipe directly from the lake, river or stream and into a water treatment system.

Lake Huron is the source of raw water that is treated for drinking water for hundreds of thousands of people in Canada and the United States.

The area of water and land around an intake is an **intake protection zone** (IPZ). If you live, work, or own property in one of these zones, there are many things you can do to keep that drinking water source clean.

Almost two thirds of Ontarians rely on surface water to meet their daily needs.

You can help to protect this drinking water source by taking positive actions at home and at work.



What are some things that can threaten our local drinking water sources?

These are some activities that could threaten drinking water sources in vulnerable areas:

- Septic systems; On-site sewage
- Fuel oil (including home heating oil)
- Liquid fuel such as gas stations
- Chemicals (toxic chemicals such as organic solvents and dense non-aqueous phase liquids or DNAPLs)
- Commercial fertilizer
- Pesticides
- Nutrients (manure, bio-solids, grazing)
- Waste disposal sites (including storage of hazardous waste)
- Sewage works (sewage treatment plants, municipal sewers)
- Road salt and snow storage
- Others: For the list of 21 provincially prescribed drinking water threats, go to this web page:

ontario.ca/document/tables-drinking-water-threats

Some of these activities may be significant threats to drinking water around municipal wells of this region where the drinking water source is groundwater. However, these activities are not significant threats to surface-water sources found in the intake protection zones of this region.

Even though these activities are not significant in intake protection zones of this region, the work you do to properly manage these activities can protect your community's drinking water.

To find out if you live in an intake protection zone or other vulnerable area, contact your local source protection authority.

Even if you don't live near an intake protection zone it is important to take steps to protect water.

What is on lawns, streets, fields, and parking lots can end up in storm drains, creeks, rivers, and the Great Lakes – one of your sources of municipal drinking water.

Surface water and underground water sources, or groundwater from aquifers, are linked through the water cycle. What affects one can also affect the other.

Pollutants can seep into the ground, contaminate groundwater, and contaminate the water in a surface source.

Runoff from rain or melting snow can pick up and carry contaminants directly into a surface water drinking source.

Doing a better job of keeping chemicals and pathogens (including bacteria) out of Lake Huron helps to protect a local drinking water source. That is a benefit to the health of everyone.

Anything you can do to properly dispose of hazardous waste; replace or reduce use of chemicals; manage application of pesticides, fertilizers, and nutrients; better store home chemicals, heating fuel and other oil; and maintain your septic systems and wells; are a benefit to the health of you, your family, and your community. Thanks for doing all you can.

Things you can do at home and work to protect water

If you are located in an intake protection zone, you are in a vulnerable area.

That means that what you do at home and at work has a greater chance of having an impact on Lake Huron – one of your local municipal drinking water sources.

Everything that goes onto the ground or down your sink and toilet or septic system could affect water. Help keep your community's drinking water safe.

Here are some ways you can help to protect your local supply of clean, safe water:

1 Never dump these things on the ground, down the sink, or in the toilet: Paints; thinners; furniture strippers; coolants; cleaners; glues, adhesives; gasoline; oil; diesel; heating fuel; de-greasers; resins; creosote; etc. If it's something you don't want in your water then please don't put it on the ground. Dispose properly at hazardous waste days or approved sites.

2 If you have a septic system, have it inspected and pumped every three to five years.

3 Prevent spills and contain spills.

Report spills if they happen to the Ontario Spills Action Centre: 1-800-268-6060.

Visit: http://www.ontario.ca/environment-and-energy/report-spill

4 Protect and maintain your private well. Wells provide pathways for contaminants to enter groundwater. If you have a well, be sure it is sealed properly and if you own a well you no longer use, have it properly decommissioned by a licensed well technician.

5 Ask your local conservation authority about stewardship guides and best practices for your home, cottage, farm, or business. Technical advice and grant programs may be available to help.

6 Take used engine oil to recycling facilities.

7 If you can reduce quantities, or find alternatives to harmful chemicals, please do so.

If you apply pesticides or fertilizers or nutrients make sure you follow best practices.

8 Visit **sourcewaterinfo.on.ca** to find out other ways to help.