

Help protect your local drinking water

in highly vulnerable aquifers (HVAs) and significant groundwater recharge areas (SGRAs)

Four types of vulnerable areas

There are four types of vulnerable areas named in the Ontario *Clean Water Act, 2006*:

- Significant groundwater recharge areas
- Highly vulnerable aquifers
- Intake protection zones (for surface-water sources of drinking water such as a Great Lake or large river).
- Wellhead protection areas (protective zones around a municipal well).

Highly vulnerable aquifers

When a municipality draws drinking water from a well, it is getting that water from underground. This groundwater is found in aquifers. When water can pass through soil such as sand or gravel we call that surface permeable. An aquifer is more vulnerable to contamination if the soil layer is thin.

Aquifers are areas of soil or rock under the ground where cracks and spaces allow water to pool. They are considered highly vulnerable based on factors such as how deep it is underground, what sort of soil or rock is covering it, and the characteristics of the soil or rock surrounding it.

Significant groundwater recharge areas

An aquifer is an area of soil or rock under the ground that has many cracks and spaces and has the ability to store water. Water that seeps into an aquifer is called recharge. Much of the natural recharge of an aquifer comes from rain and melting snow. The land area where the rain or snow seeps down into an aquifer is called a recharge area.

Recharge areas often have loose or permeable soil, such as sand or gravel, which allows the water to seep easily into the ground. Areas with shallow fractured bedrock are also often recharge areas. A recharge area is considered significant when it helps maintain the water level in an aquifer that supplies a community with drinking water.

For complete definitions, legislation, and regulations visit ontario.ca. For local source protection plans, assessment reports, and explanatory document, visit sourcewaterinfo.on.ca

Do planning policies apply here?

Source protection planning policies are only recommendations in highly vulnerable aquifers and significant groundwater recharge areas of this region. Policies do not have legal effect that requires property owners to comply there, as there are no assessed significant threats to drinking water in HVAs and SGRAs. However, municipalities, implementing bodies, and local people should have regard for these policies, developed locally and approved by the Province of Ontario.



Activities that may pose threat to drinking water sources

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

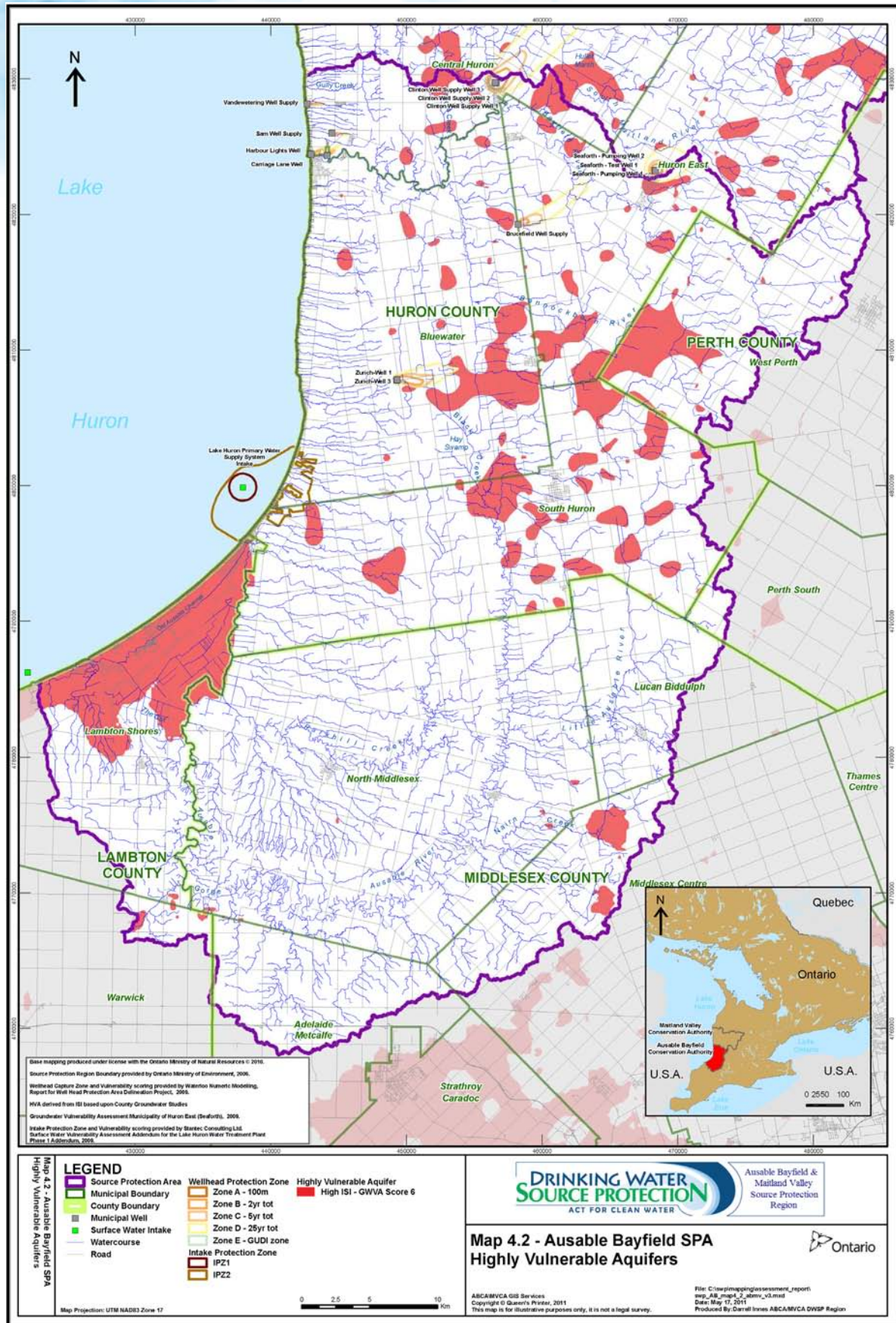
- Septic systems; On-site sewage
- Fuel oil (including home heating oil)
- Liquid fuel such as gas stations
- Chemicals (toxic chemicals such as organic solvents and dense non-aqueous phase liquids)
- Commercial fertilizer
- Pesticides
- Nutrients (manure, bio-solids, grazing)
- Waste disposal sites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

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

Some of these activities may be significant threats to drinking water sources in zones around municipal wells of this region. However, these activities are not significant threat activities in the highly vulnerable aquifers and significant groundwater recharge areas of this region. These activities may, however, be low or moderate threats to drinking water. Even though they are not significant in HVAs and SGRAs here, and you are not required to comply with source protection planning policies in those areas, the work you do to properly manage these activities can protect your community's municipal drinking water sources.

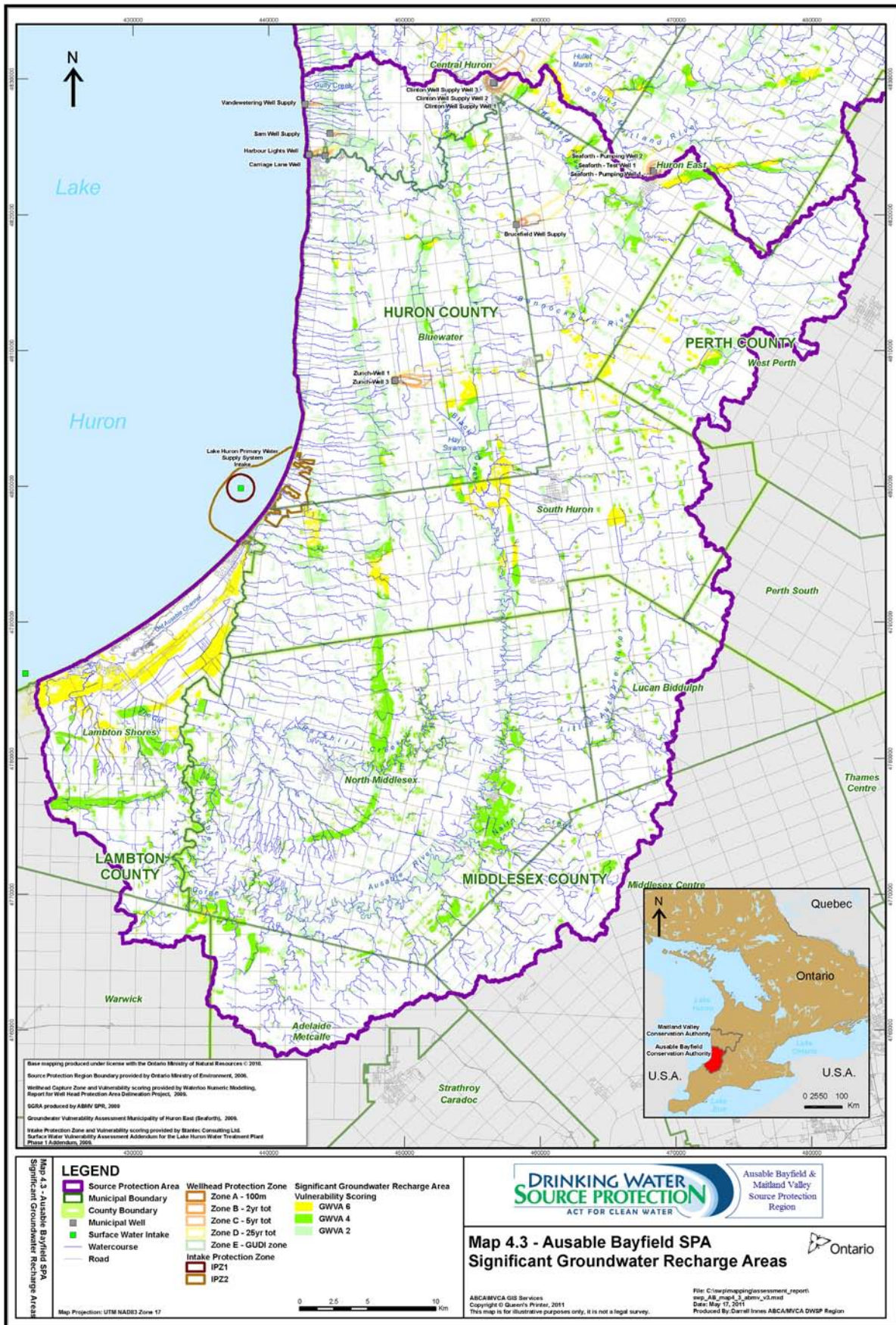
Map of highly vulnerable aquifers (HVAs)

Ausable Bayfield Source Protection Area



Map of significant groundwater recharge areas (SGRAs)

Ausable Bayfield Source Protection Area



Things you can do at home and work to protect water



If you live, work, or own property in a highly vulnerable aquifer or significant groundwater recharge area, 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 your local municipal drinking water sources. Everything that goes onto the ground or down your sink and toilet or septic system could affect local water sources. 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 of, 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 mvca.on.ca or abca.on.ca or sourcewaterinfo.on.ca to find out other ways to help.



Ausable Bayfield Conservation
519-235-2610
abca.on.ca
71108 Morrison Line,
RR 3 Exeter, ON
N0M 1S5



Ausable Bayfield
Maitland Valley
Source Protection
Region

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1-888-286-2610 • sourcewaterinfo.on.ca

The content provided in this publication is intended for local educational and information purposes only. Every effort has been made to ensure the correctness of information as at the publication date (June 2015).

Subject to change. For legislation and regulations visit ontario.ca.