

Source Protection Plan Policy Implications for Agricultural Operations

Purpose of This Document

This is a summary document highlighting some of the most important and relevant information in the source protection plan for members of the agricultural community. The source protection plan is a document that contains a set of policies intended to protect local sources of drinking water.

Because this is a summary document, it is not intended to replace the actual source protection plan. Agricultural representatives from your local Source Protection Committee or source protection staff are your best resource for understanding the source protection plan and its implications for your agricultural operation. Contact names for the South Georgian Bay Lake Simcoe source protection region are listed at the end of this document.

Background: Clean Water Act

The Clean Water Act became provincial legislation in 2006. The goal behind the Clean Water Act is to protect municipal sources of drinking water from contamination and over-use. Under the Clean Water Act, communities across Ontario are required to develop and implement source protection plans to protect municipal sources of drinking water from contamination and overuse.

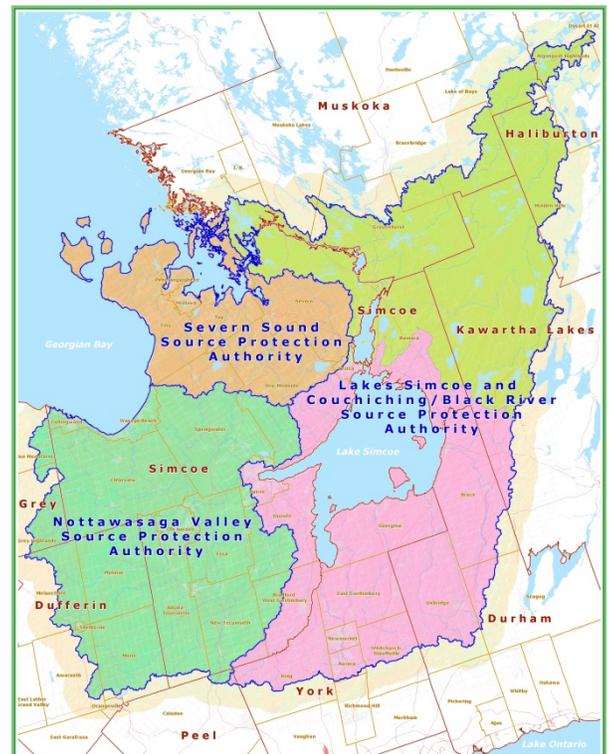
In order to enact the legislation in the Clean Water Act, the province was split into 19 regions called "Source Protection Regions". Each Source Protection Region was given the responsibility of developing policies to protect their local sources of drinking water. Our region is called the "South Georgian Bay Lake Simcoe Source Protection Region" as shown in the map to the right.

Source Protection Plan

Each Source Protection Region was tasked with developing a source protection plan which contains policies that protect our municipal water supplies. The plan and policies were drafted by a group of local stakeholders, including three agricultural representatives. The plan and policies can be found online here:

www.ourwatershed.ca/documents/source_protection_plan.php.

Because the source protection plan is quite long and many of the policies do not impact the agricultural community, this fact sheet is one in a series of documents written to help focus on those parts of the source protection plan that are most relevant to the agricultural community.



120 Bayview Parkway ♦ Newmarket, ON ♦ L3Y 4X1
Tel: 905-895-1281 ♦ Fax: 905-853-5881
www.ourwatershed.ca



South Georgian Bay Lake Simcoe Source Protection Region

Significant Drinking Water Threats

The Clean Water Act identifies 21 potential significant drinking water threats (see table to the right). The source protection plan contains policies to address each of these 21 threat activities.

Several of them are related to agriculture. Those threats most likely to be found on an agricultural property include:

- Threat # 3 and 4: the application and storage of agricultural source material (see page 78 – 85 of source protection plan).
- Threat # 6 and 7: the application, handling and storage of non-agricultural source material (see page 86 – 93 of source protection plan).
- Threat # 8 and 9: the application, handling and storage of commercial fertilizer (see page 94 – 99 of source protection plan).
- Threat # 10 and 11: the application, handling and storage of pesticide (see page 100 – 103 of source protection plan).
- Threat # 15: handling and storage of fuel (see page 111 – 112 of source protection plan).
- Threat # 21: livestock grazing or pasturing land or an outdoor confinement area (see page 129 – 132 of source protection plan).

Where Source Protection Policies Apply

The 21 threat activities identified above are not considered **significant** drinking water threats unless located in a vulnerable area. Policies apply in two main vulnerable areas as illustrated in the two images below:

wellhead protection areas and **intake protection zones**.

Wellhead protection areas are areas of land around a municipal well that supply the well with water. Contaminants released in wellhead protection areas are reasonably likely to move towards and reach a water well. (see Figure 1). The size of the wellhead protection area is determined by how quickly water travels underground to the well, measured in years. A standard 100 m radius circle is drawn around each municipal well - this is called the WHPA-A. The WHPA-A is considered particularly vulnerable as contaminants released in this area would reach the well very quickly. WHPA-B represents the 2 year time of travel, while WHPA-C and WHPA-D represent the 5 year and 25 year time of travel. Vulnerability scores on a scale of 1-10 are assigned to areas within the wellhead protection area. The higher the score, the more vulnerable the water source is to contamination.

List of threats to our drinking water:

- Waste disposal sites (Threat #1)
- Sewage works: sewage treatment plants, municipal sewers, septic, stormwater (Threat # 2)
- Nutrients and pathogens (manure, bio-solids, outdoor livestock areas) (Threat # 3, 4, 5, 6, 7, 21)
- Commercial fertilizer (Threat # 8, 9)
- Pesticides (Threat # 10, 11)
- Road salt and snow storage (Threat # 12, 13, 14)
- Fuel (liquid fuel + heating oil) (Threat # 15)
- Chemicals (DNAPLs and organic solvents) (Threat # 16, 17)
- Aircraft de-icing run-off (Threat # 18)
- Water taking or reducing recharge (Threat # 19, 20)

Figure 1: Wellhead Protection Area

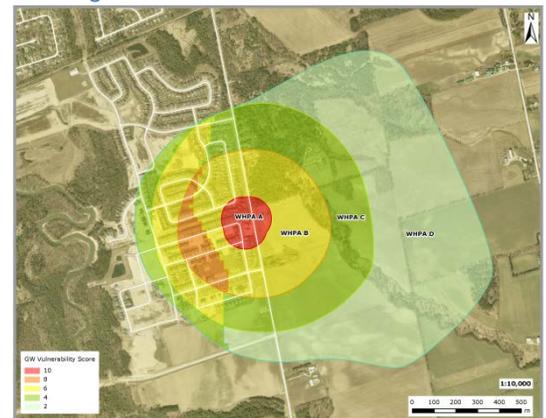
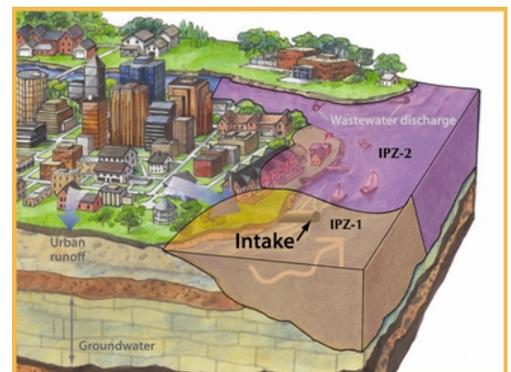


Figure 2: Intake Protection Zone

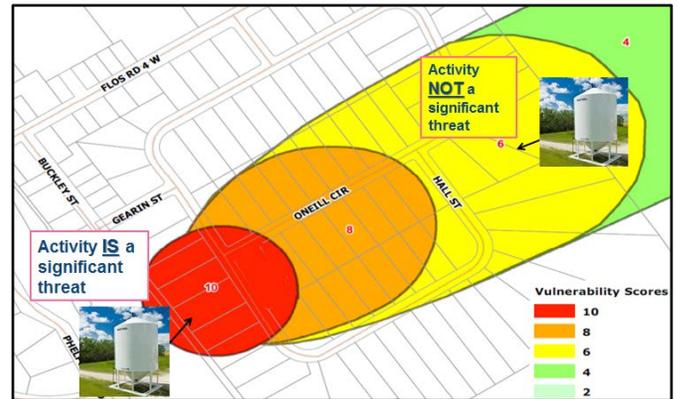


Intake protection zones are areas on the land and water that surround a municipal surface water intake pipe (See Figure 2). The area is divided into zones, the size of which is determined by how quickly water flows to the intake, in hours. Like wellhead protection areas, vulnerability scores on a scale of 1-10 are assigned to areas within the intake protection zone. The higher the score the more vulnerable the intake is to contamination.

In order for an activity to be classified as a significant threat, certain site-specific circumstances must exist. As an example, commercial fertilizer storage is one of the 21 potential threat activities. However, it can only be classified as a significant threat based on its location in relation to a municipal water source (See Figure 3) as well as other factors such as the amount of fertilizer being stored. The majority of the 21 prescribed threat activities are only significant in areas where the vulnerability score is 10; this is where the majority of the source protection policies will therefore apply. This means that an activity may be a significant threat in one portion of a vulnerable area, and not in another.

In other words, just because one of the 21 potential significant threats is located on a property that is in a vulnerable area, doesn't mean it is actually a significant threat and subject to policies. It may also be that only part of a property is located in the specific portion of a vulnerable area that is subject to policies.

Figure 3: Location of activity is one determinant of its status as a potential threat



Risk Management Plans

Some source protection policies may require farmers engaged in a threat activity to establish a risk management plan. Generally speaking, a risk management plan is a document that is negotiated between a Risk Management Official (a source water protection representative, who generally, but not always, works for the municipality) and the person engaged in the threat activity (the farmer). It outlines steps to be taken to ensure that any activity identified as a potential significant threat is managed. It can be thought of as loosely similar to a Nutrient Management Plan or Strategy for farms not currently phased in under the Nutrient Management Act.

What if I Already Have a Nutrient Management Plan or Strategy?

You may have to make some amendments to the Plan or Strategy so that it ensures the requirements from the source protection plan are taken into consideration.

Further Questions?

Contact your Source Protection Committee (SPC) agricultural sector representative. A list of SPC members can be found here: <http://www.ourwatershed.ca/committees/spcmembers.php>.

Or contact your local Source Protection Authority representative:

- Katie Howson, Lakes Simcoe and Couchiching/Black River Source Protection Authority
k.howson@lsrca.on.ca or 800-465-0437 ext 291
- Ryan Post, Nottawasaga Valley Source Protection Authority
rpost@nvca.on.ca or 705-424-2479 ext 249
- Keith Sherman, Severn Sound Source Protection Authority
ksherman@midland.ca or 705-527-5166 ext 206