

Ameliasburgh's Drinking Water System

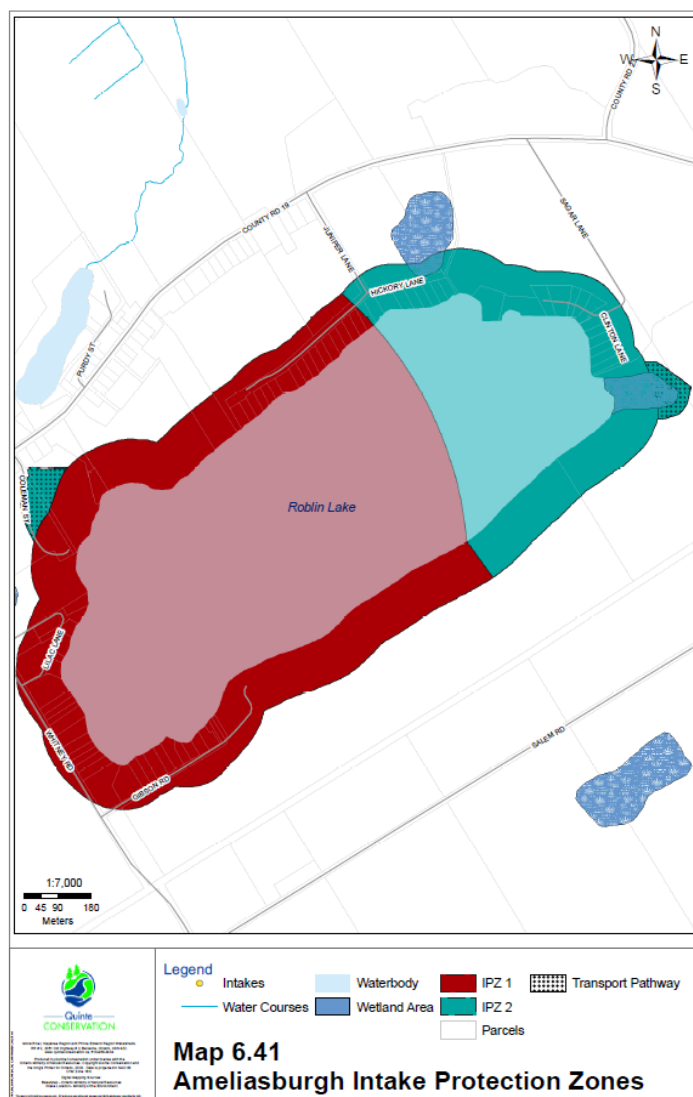
The Village of Ameliasburgh relies on a small inland lake, Roblin Lake, in Prince Edward County as their municipal drinking water source. Roblin Lake has a surface area of one square kilometre and is used to provide the community (75 residences) with clean drinking water. Land uses in this area include permanent and seasonal residences, a municipal park and beach, agricultural land, and a former Salvation Army camp. The intake pipe draws water from the lake to the treatment plant on the northwest shore of the lake.

Some parcels around the lake are not serviced by this system and rely on private systems (wells or intakes). No parcels in Ameliasburgh are serviced by municipal sewage so they must have private sewage systems on their properties.

Ameliasburgh's Vulnerable Areas

Using science, the Assessment Report has delineated zones to show which areas near the municipal intake are the most vulnerable to pollution and contamination. These zones are called Intake Protection Zones (IPZs) and include the water and land where activities could affect the quality and quantity of water flowing towards the intake. The location and size of an IPZ is determined in part by the direction of flow and the speed/rate it moves. In Ameliasburgh, there are two IPZs:

- **IPZ 1:** this zone is the closest to the intake. This is the zone of highest concern because contaminants can reach the intake quickly with little or no dilution.
- **IPZ 2:** this zone is calculated based on how far water can travel to the intake within two hours or less.
- **IPZ 3:** typically IPZ 3s include the tributaries for the entire contributing area to the water source. However, Roblin Lake is situated in an upland area with no tributaries draining into it and the IPZ 2 boundaries extend to the entire drainage area of the lake which includes the only transport pathway. Therefore, no IPZ 3 was delineated for the intake pipe in Roblin Lake



Vulnerability Scores

Vulnerability scores help to quantify how vulnerable a drinking water source is to contamination. Scores are calculated based on the characteristics of the intake and the IPZs around the intake, taking into account how contaminants might move through zones.

An area with a higher vulnerability score is more likely to allow contaminants from that area to reach the well. The vulnerability scores range from 2 (lowest) to 10 (highest). The vulnerability scores for the Ameliasburgh Drinking Water System are:

- **IPZ 1 = 10**
- **IPZ 2 = 8**

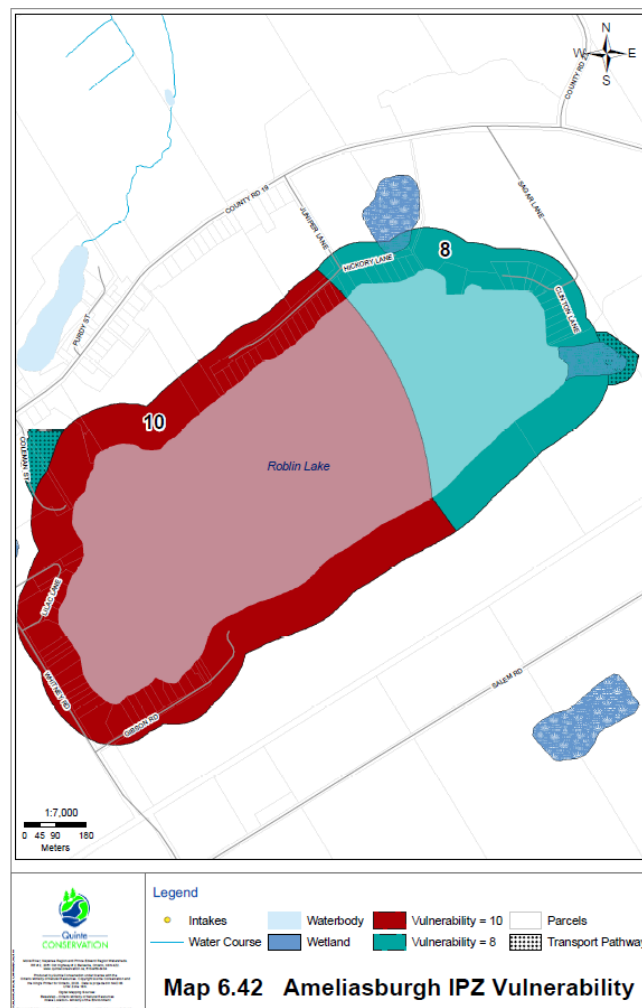
Drinking Water Issues

Drinking water issues are chemicals or bacteria found in untreated water that exceeds the provincial allowable values. A four-step screening process confirmed that no issues in the raw water exist for the Ameliasburgh Drinking Water System.

Drinking Water Threats

Drinking water threats are based on 22 categories prescribed by the Ministry of the Environment, Conservation and Parks. Threats were identified in Ameliasburgh's IPZs. Some of the threat types that are, or could be occurring include:

- Septic systems.
- Application, handling and storage of agricultural source material, pesticides, fertilizers, and road salt.
- Waste disposal sites.
- Land use for livestock grazing/pasturing land and outdoor confinement areas or a farm animal yard.
- Handling and storage of fuel.



The Quinte Source Protection Plan

The Quinte Source Protection Plan has over 80 policies to protect and maintain clean and plentiful drinking water sources. The policies address drinking water threats that were identified in the science-based Assessment Report. Each policy was developed by the Quinte Source Protection Committee in consultation with communities and stakeholders.

The Quinte Source Protection Plan came into effect January 1, 2015 and has undergone amendments in 2019, 2023, and 2024.