



Sewage

Drinking water threats associated with sewage systems include sanitary sewer collection systems, sewage treatment plants, stormwater treatment ponds, and private septic systems.

Sewage as a Drinking Water Threat

Sewage systems are one of the most common drinking water threats in the Quinte area due to the potential for leaching bacterial and chemical contaminants into surface and groundwater sources in the most vulnerable areas.



Sewage Related Activities Identified as a Drinking Water Threat

1. **Septic Systems** including small private systems (less than 10,000 litres/day), large systems (greater than 10,000 litres/day), and holding tanks (i.e. septic tanks and leaching beds).
2. **Stormwater Treatment Ponds** designed to receive drainage from a specific area and to discharge into ground or surface water sources.
3. **Discharge of Industrial Effluent Systems** designed to receive, transmit, treat, and discharge industrial effluent.
4. **Sanitary Sewers and Combined Sewers** designed to transmit sanitary waste to a treatment facility through piping and pumping stations.
5. **Sewage Treatment Plants** treat and discharge effluent. Threats related to this process include effluent and bypass discharge as well as holding tanks containing sewage.

Where is Sewage a Drinking Water Threat?

Sewage systems are considered significant drinking water threats when they occur in the most vulnerable areas around municipal drinking water sources called Wellhead Protection Areas (WHPAs) and Intake Protection Zones (IPZs). There are significant drinking water threats for sewage in:

- WHPA A, B and C for wells in Deloro, Madoc, Peats Point, Point Anne, and Tweed.
- WHPA E for the Village of Madoc and Peats Point.
- IPZ 1 and 2 in Ameliasburgh, Belleville, Deseronto, Napanee, Picton, and Point Anne.
- IPZ 3a in Picton.
- The Hamlet of Point Anne has both WHPAs and IPZs because of the infrastructure of the system. Due to the uniqueness of this system, significant threats can occur in both WHPAs and IPZs.
- WHPA-ICAs in Madoc and Tweed.



Education and Outreach

The Quinte Source Protection Plan includes a policy for general education and outreach. This policy exists to raise awareness about the drinking water concerns related to sewage system activities in vulnerable areas.

Septic System Inspections

All septic systems in vulnerable areas, where they are or would be considered significant drinking water threats, are required to be inspected on a five-year cycle in accordance with the *Ontario Building Code*.



Land Use Planning

Any unserviced facility is required to connect to municipal sewers where they exist. New development proposing septic systems in vulnerable areas will be considered where appropriate and through justification by proper engineering and hydrogeological studies. Future sewage treatment plants are to be located outside of vulnerable areas.

Updating Existing Documents

Where facilities exist or are proposed to the Ministry of Environment, Conservation and Parks is directed to review existing Certificates of Approvals, and new applications with consideration to managing and protecting municipal drinking water sources/supplies.

Specify Action

Sewage related facilities must be inspected, operated and maintained by the municipality on a regular basis to ensure operation as designed and to minimize potential for adverse impacts.