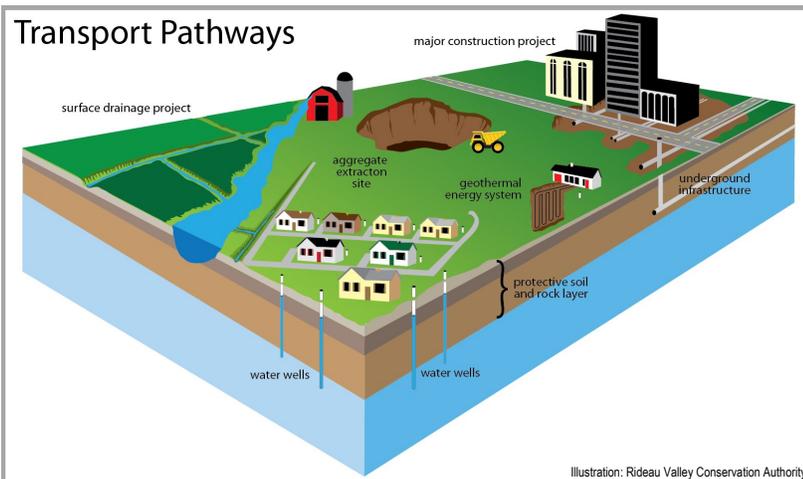


What Well and Borehole Drillers Need to Know About Drinking Water Source Protection

Drilling wells or boreholes in the vicinity of a municipal drinking water source create transport pathways that can impact the municipal well water supply. Well and borehole drillers need to be aware of bylaws and requirements in effect to protect public drinking water sources from contamination.

Policies in the local Source Protection Plan developed under Ontario's *Clean Water Act, 2006* set out how municipal water sources must be protected from contamination. Drilling in or near the villages of Deloro, Madoc, and Tweed, the hamlet of Point Anne, and the Peats Point subdivision in Prince Edward County may now be affected.



What is a Transport Pathway?

A transport pathway is a human-made channel or route to a groundwater aquifer used as a source of drinking water.

Some examples are:

- ◆ improperly constructed or maintained water wells
- ◆ unused/abandoned water wells
- ◆ geothermal wells for earth energy systems

Transport pathways can negatively impact our drinking water sources because they provide a direct route for contaminants to quickly enter groundwater sources. Transport pathways increase the risk of contamination because the path they provide bypasses the natural, protective layers of soil and rock that help filter water.

Why Protect Source Water?

- ◆ to protect public health
- ◆ to avoid the cost and need to clean up contaminated water
- ◆ to reduce the cost of water treatment
- ◆ to eliminate the need to search for new drinking water sources when existing ones become contaminated or depleted
- ◆ to ensure a long-term supply of clean water
- ◆ to ensure an adequate supply for economic growth

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What is a Source Protection Plan?

Local source protection plans were developed under Ontario's *Clean Water Act, 2006* to address human activities that pose a threat to drinking water sources. The provincially approved plans now in effect set out how the drinking water sources will be protected. The Quinte Region Source Protection Plan has 63 policies that call for voluntary and mandatory actions to encourage good stewardship, require additional care or risk reduction measures where necessary, and in limited circumstances even prohibit certain activities. Three of the policies address the threat from transport pathways.

What is the Clean Water Act?

The *Clean Water Act, 2006* was created in response to recommendations from the inquiry into the Walkerton tainted water tragedy. The legislation focuses on the protection of drinking water at its source. Most municipal water sources across Ontario are now protected under locally developed, science-based Source Protection Plans.

Where do these transport pathway policies apply and what do they call for?

The transport pathway policies in the Source Protection Plan apply in relatively small and mapped vulnerable areas, known as wellhead protection areas, that surround the municipal drinking water sources.

These areas of concern in the Quinte Region are in the **villages of Deloro, Madoc, and Tweed, the hamlet of Point Anne, and the Peats Point subdivision in Prince Edward County.**

Policies call for the Ministry of the Environment and Climate Change to ensure that all wells in the municipal wellhead protection areas comply with Ontario Regulation 903 and do not endanger the public drinking water supply. Policies encourage municipalities to ensure that wells are properly maintained or decommissioned and that the municipal water source is not impacted by new earth energy systems. Policies call for boreholes, where permitted in a vulnerable area, to be constructed in the manner set out in Regulation 903.

Where can drillers get more information?

Municipalities may be passing or have already passed a transport pathways bylaw. The by-laws will comply with the source protection plan to ensure that new transport pathways will not negatively impact municipal drinking water sources.

For new wells and boreholes: Drillers know that construction of new wells must be in compliance with Regulation 903. Drillers should consult with the local municipality prior to drilling as new wells or boreholes may not be permitted in some vulnerable areas.

For Well Abandonment Projects: Drillers know that abandonment of wells must be in compliance with Regulation 903. Proper abandonment of wells within vulnerable areas will help protect municipal groundwater from contamination via transport pathways. Drillers are asked to advise the municipality upon completion of a well abandonment project near a municipal well (in a vulnerable area).

To find out if an address or location is within a vulnerable area:

- ◆ See the Vulnerable Area Maps at QuinteSourceWater.ca
- ◆ contact the local municipal office
- ◆ contact the source water protection project staff at:
Quinte Conservation: 613-968-3434 or 613-354-3312
Or visit the office during business hours: 2061 Old Highway 2 near Belleville (appointment recommended).