

1.1 TRANSPORT PATHWAYS

Definition

O. Reg. 287/07 under the *Clean Water Act, 2006*, defines Transport pathways are a land condition resulting from human activity that may increase the vulnerability of a municipal drinking water system's raw water supply.

Transport Pathways can circumvent the natural protection offered by soils and overlying soil and rock confining layers, resulting in a greater risk of contamination of the aquifer complexes that provide municipal drinking water supplies. Transport pathways may facilitate the movement of contaminants vertically (a well or a quarry) or laterally (pipes such as water or sewer lines) below the ground and result in faster or a more widespread distribution of contaminants. Examples include:

- drainage ditches
- storm and sanitary sewer lines
- aggregate pits and quarries
- improperly constructed or abandoned wells
- subsurface construction (deep excavations and pile foundations)
- Earth Energy Systems (Geothermal wells)

Why are Transport Pathways a Threat to Drinking Water Sources?

Although transport pathways are not identified as a prescribed threat under the *Clean Water Act, 2006*, any land-uses or activities located that has the potential to create a transport pathway in proximity to a municipal water system may increase the vulnerability of the municipal aquifer. The presence of a Transport Pathway may result in the creation of threat activities that require management through source protection plan policies.

Where are Transport Pathways a Threat to Drinking Water Sources?

Ontario Regulation 287/07, under the Clean Water Act, identifies 22 activities that, if present in vulnerable areas, now or in the future, could pose a significant drinking water threat. The Director's Technical Rules a prescribed activity is considered a significant drinking water threat based on its

position in the well head protection area (time of travel), and the intrinsic vulnerability of the location. The presence of a transport pathways may lead to an increase in the vulnerability scoring for the municipal aquifer upon consideration of hydrogeological conditions, the type and design of any transport pathway, the cumulative impact of any transport pathways and the extent of any assumptions used in the assessment of the vulnerability of the groundwater. These changes may result in the identification of additional threat activities that require management through source protection plan policies.

In 2022, Credit Valley Source Protection Authority completed a technical study aimed at identifying potential transport pathways in Wellhead Protection Areas of municipal drinking water systems in its jurisdiction. This work assessed several of the features / land usages cited above and applied a methodology that was similar and comparable with work undertaken in other source protection areas and regions of the Province.

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
TP-1	An activity that has the potential to introduce or create a Transport Pathway on to the landscape surrounding municipal water systems.	Municipality	J	<p>Specify Action</p> <p>Municipalities are encouraged to engage with proponents and developers to ensure that they are versed with responsibilities pertaining to the requirements of Ontario Regulation 903 and the decommissioning of private wells that are no longer in use or are deemed substandard.</p>	See Maps 1.1 – 1.21	Future: Immediately (T-18)	N/A	N/A
TP-2	An activity that has the potential to introduce or create a Transport Pathway on to the landscape surrounding municipal water systems.	Municipality	J	<p>Specify Action</p> <p>Municipalities shall give the source protection authority and the source protection committee notice of the transport pathway proposals in a wellhead protection area or intake protection zone as per Section 27(3) of O. Reg. 287/07.</p>	See Maps 1.1 – 1.21	Future: Immediately (T-18)	N/A	N/A

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
TP-3	An activity that has the potential to introduce or create a Transport Pathway on to the landscape surrounding municipal water systems.	Municipality	J	<p>Specify Action</p> <p>To ensure municipalities <i>protect all municipal drinking water supplies and designated vulnerable areas</i>^[1], this policy applies to the following applications made under the Planning Act: Site Plan, Official Plan Amendment, Zoning By-Law Amendment, Draft Plan of Subdivision. In such applications, where construction within Wellhead Protection Area A and B with a vs=10 is proposed, the municipality is encouraged to utilize the pre-application process to identify potential increases to risk to municipal water sources and to work with applicants to rigorously address any potential to introduce or create a transport pathway(s) surrounding municipal water systems.</p> <p>Planning Act applications under consideration in this context shall, as part of a municipal requirement for a complete application, include a “Confirmation Statement” from a Qualified Person (QP) confirming that the proposal will not increase the risk of the municipal water sources to being contaminated by land-based activities. Prior to final approval, the “Confirmation Statement” shall be in a form satisfactory to of the municipality. The statement from the qualified person and any background information may be subject to review by a third-party peer review.</p> <p>For each Planning Act application for construction of Transport Pathways within Wellhead Protection Areas B (vs<10), C, E (E with a score of 8 or 9) the municipality is encouraged to require the proponent of development applications to demonstrate that the municipal water supply sources are protected including what best management practices would be used to mitigate any adverse effects of the proposed transport pathway.</p> <p>^[1] This direction and italicized language is from Policy 2.2.1 f) of the <i>Provincial Planning Statement, 2024</i>.</p>	See Maps 1.1 – 1.21	Future: Immediately (T-18)	N/A	Mon-2