

The Warkworth municipal drinking water system is one of 53 systems in the Trent Conservation Coalition Source Protection Region and it was examined as part of the studies completed for the Drinking Water Source Protection program.

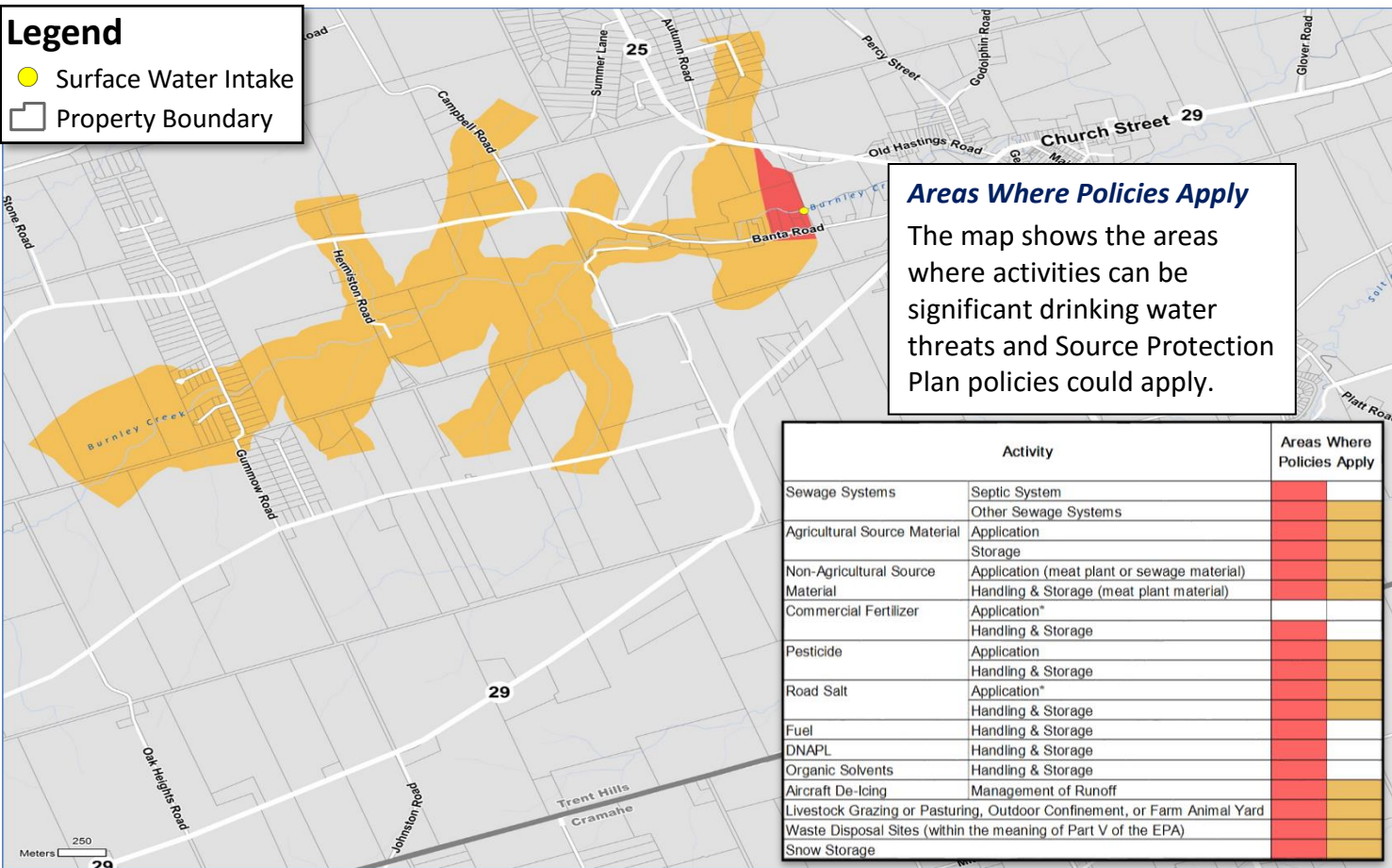
The system is located in the **Lower Trent Source Protection Area** and is owned by the **Municipality of Trent Hills**. The areas around the intake, the intake protection zones, are the vulnerable areas around the system where activities have the potential to be significant threats to the drinking water source. The Trent Source Protection Plan contains policies to manage or eliminate the significant threats that have been identified for the Warkworth municipal drinking water system. Policies also apply to activities that would be significant threats if they were carried out in the future. This Factsheet provides a summary of Source Protection planning and the existing significant threats for this system.

System Summary

<i>Water Source</i>	Burnley (Mill) Creek
<i>Operating Authority</i>	Municipality of Trent Hills
<i>SDWA Classification</i>	Large municipal residential ¹
<i>Serviced Population</i>	~725

Legend

- Surface Water Intake
- Property Boundary



Areas Where Policies Apply

The map shows the areas where activities can be significant drinking water threats and Source Protection Plan policies could apply.

Activity	Areas Where Policies Apply
Sewage Systems	Septic System
	Other Sewage Systems
Agricultural Source Material	Application
	Storage
Non-Agricultural Source Material	Application (meat plant or sewage material)
	Handling & Storage (meat plant material)
Commercial Fertilizer	Application*
	Handling & Storage
Pesticide	Application
	Handling & Storage
Road Salt	Application*
	Handling & Storage
Fuel	Handling & Storage
DNAPL	Handling & Storage
Organic Solvents	Handling & Storage
Aircraft De-icing	Management of Runoff
Livestock Grazing or Pasturing, Outdoor Confinement, or Farm Animal Yard	
Waste Disposal Sites (within the meaning of Part V of the EPA)	
Snow Storage	

Intake Protection Zones

Intake protection zones (IPZ) are vulnerable areas defined around surface water intakes. Vulnerable areas were delineated as part of the Assessment Report (2011).

- **IPZ-1** is the area closest to the intake and is of highest concern because contaminants entering this zone may reach the intake quickly with little or no dilution. It is defined as an area extending up to one kilometer from the intake.
- **IPZ-2** is a secondary protection zone upstream of the IPZ-1. It is defined as an area where water could reach the intake within a two hour period of time.
- **IPZ-3** is the total drainage area upstream of the IPZ-2 that contributes water to the intake.

Significant Drinking Water Threats

An activity is considered a significant drinking water threat if it is undertaken in a vulnerable area under circumstances that pose a significant risk to the water source. These circumstances are set out in the [2009 Tables of Drinking Water Threats](#), a part of the Clean Water Act regulations. Significant drinking water threats are addressed by policies in the Source Protection Plan. A total of 66 significant drinking water threats were identified on 28 properties within the Warkworth IPZ-1 and IPZ-2. No significant threats were identified in IPZ-3.

Identifying Drinking Water Threats

Drinking water threats were initially assessed in 2009-2010 during the preparation of the Assessment Report. A verification of these threats was carried out in summer/fall 2013 to confirm the findings of the initial assessment and to obtain more specific information about the circumstances of the identified activities.

The threat verification identified activities taking place at the time of the assessment and activities that take place seasonally, rotationally, or occasionally as part of regular operations on the property (e.g. application of manure). These activities are considered existing threats. Activities that begin to occur after the Source Protection Plan comes into effect are considered future threats.

Potential Drinking Water Threats for the Warkworth System

[Learn More](#)

Sewage Systems	Sewage Systems Fact Sheet
Agricultural Activities	Agricultural Activities Fact Sheet
Non-Agricultural Source Material	Anne.Anderson@ltc.on.ca
Commercial Fertilizer <ul style="list-style-type: none">• Handling & Storage	Anne.Anderson@ltc.on.ca
Pesticide	Pesticide Fact Sheet
Road Salt <ul style="list-style-type: none">• Handling & Storage	Anne.Anderson@ltc.on.ca
Fuel	Fuel Fact Sheet
DNAPL	DNAPL Fact Sheet
Organic Solvents	Anne.Anderson@ltc.on.ca
Waste Disposal Sites	Anne.Anderson@ltc.on.ca
Snow Storage	Anne.Anderson@ltc.on.ca

Source Protection Plan

Source protection policies make use of a variety of approaches such as education and outreach, land use planning, inspections, and monitoring. For some activities, policies require landowners to work with a Risk Management Official to identify and implement measures to be more protective of drinking water. For activities already managed through existing tools, such as Environmental Compliance Approvals or Nutrient Management Plans, policies call for a review of these documents to ensure drinking water is addressed. In a limited number of cases, policies prohibit new activities from being started. Education and outreach to landowners will be a key component in the successful protection of our drinking water.

Fun Facts

- The annual average pumping rate of this system is 242 cubic metres per day.
- The intake pipe for the Warkworth system is 250 millimetres in diameter, and sits approximately one meter below the surface on Burnley (Mill) Creek.

For more information about the Clean Water Act or drinking water source protection:

- Visit our website at www.trentsourceprotection.on.ca
- Anne Anderson, Lower Trent Conservation, at (613) 394-3915 ext. 219 or anne.anderson@ltc.on.ca

