


Drinking Water Issue Identification for “Other” Systems



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OUTLINE

- Definition of “Issue”
 - Review of relevant section of Terms of Reference
 - Considerations for Exercise
 - Content of *Clean Water Act* and Technical Rules
 - Scope of Exercise
 - Recommendation
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ISSUE:

- Realization of a threat within a drinking water source.
- Represented by exceedences of water quality standards or increasing trends in water quality parameters.
 - Only chemical or radionuclide



EVALUATION OF DRINKING WATER ISSUES

- *Step 1: Assemble available data*
- *Step 2: Review data and analysis*
- *Step 3: Evaluate drinking water issues*
- *Step 4: Identify issues due to anthropogenic causes*
- *Step 5: Identify contributing area for drinking water issues*
- *Step 6: Identify activities that contributes to issues within ICA*
- *Step 7: Prepare list of drinking water issues & associated threat activities*

REVIEW OF ASSESSMENT REPORT WORKPLAN FROM TERMS OF REFERENCE

- *Identify* issues based on available data/knowledge within any type of vulnerable area including:
 - Highly Vulnerable Aquifers
 - Significant Groundwater Recharge areas
 - IPZs and WHPAs

CONSIDERATION FOR EXERCISE

Source Protection Areas	Municipal Systems	Not served by Municipal Systems
Trent SPAs	43% (136,425)	57% (180,824)
Ganaraska SPA	70% (42,779)	30% (18,334)



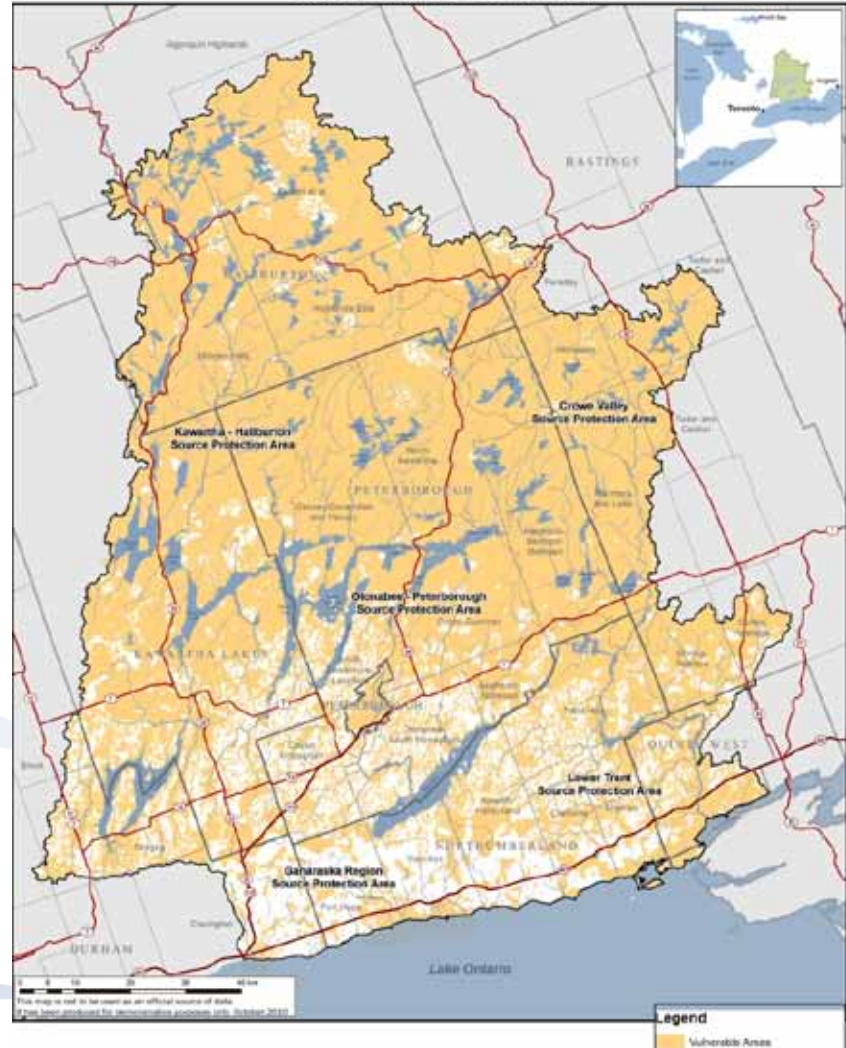
Drinking Water Systems

- Private Wells
 - Small and large municipal non-residential drinking water systems
Ex. municipally owned airports, industrial parks, recreational facilities
 - Non-municipal year round and seasonal residential drinking water systems
Ex. private cottages on communal drinking water systems
 - Small and large non-municipal, non-residential drinking water systems
Ex. restaurants, motels, gas stations, churches, bed and breakfasts
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TRENT CONSERVATION COALITION SOURCE PROTECTION REGION

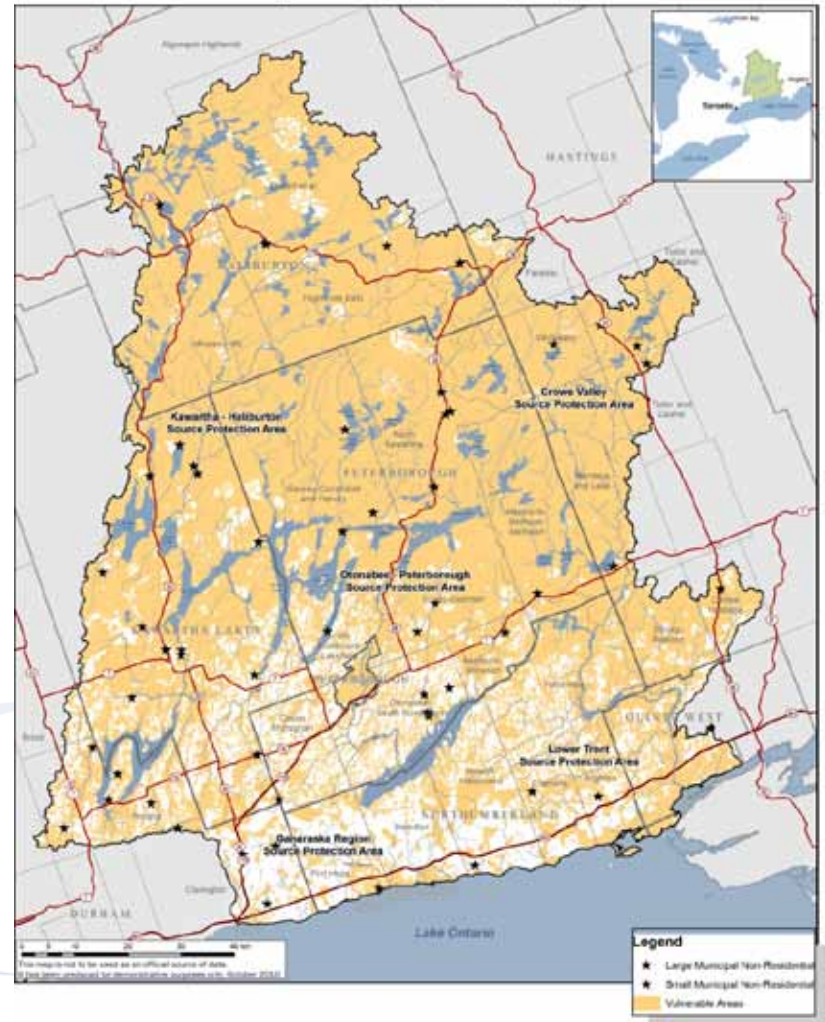
Trent Conservation Coalition Source Protection Region
Other Drinking Water Systems in Vulnerable Areas
[incl WHPA, IPZ, SGRA, HVA]

VULNERABLE AREAS WITHIN TRENT CONSERVATION COALITION



**LARGE AND SMALL
MUNICIPAL, NON-
RESIDENTIAL SYSTEMS**

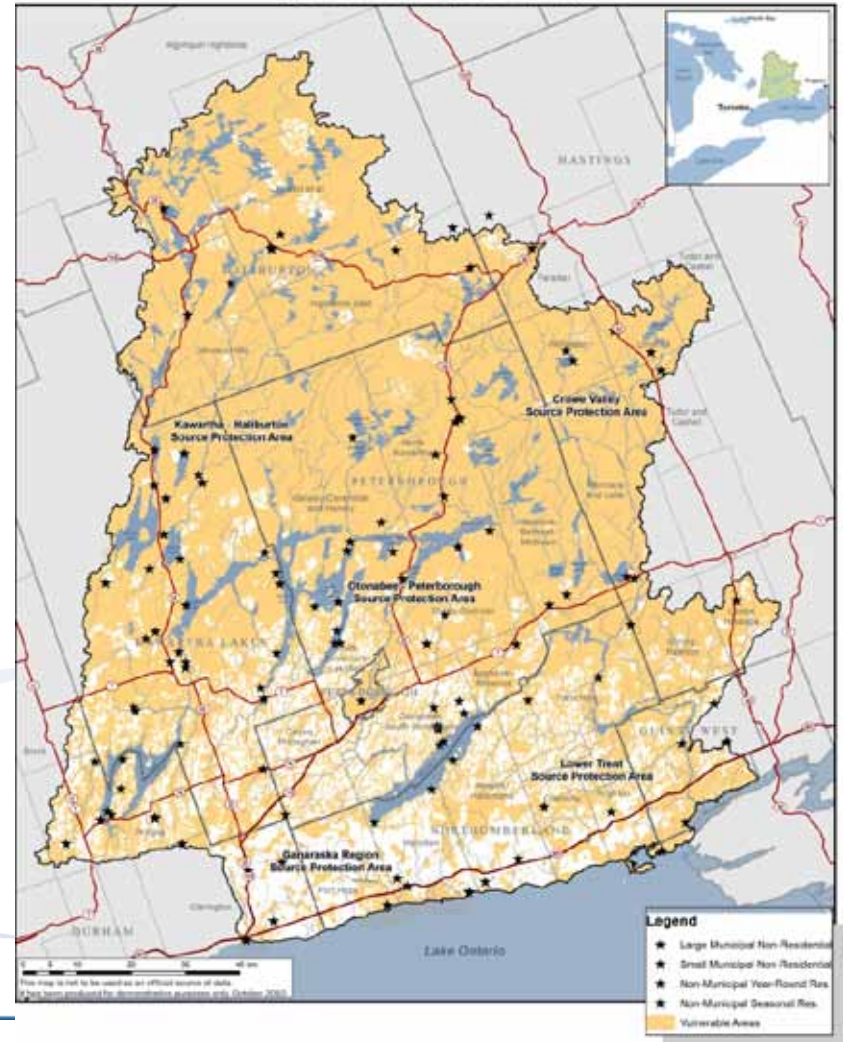
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**LARGE AND SMALL
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**NON-MUNICIPAL YEAR-
ROUND AND SEASONAL
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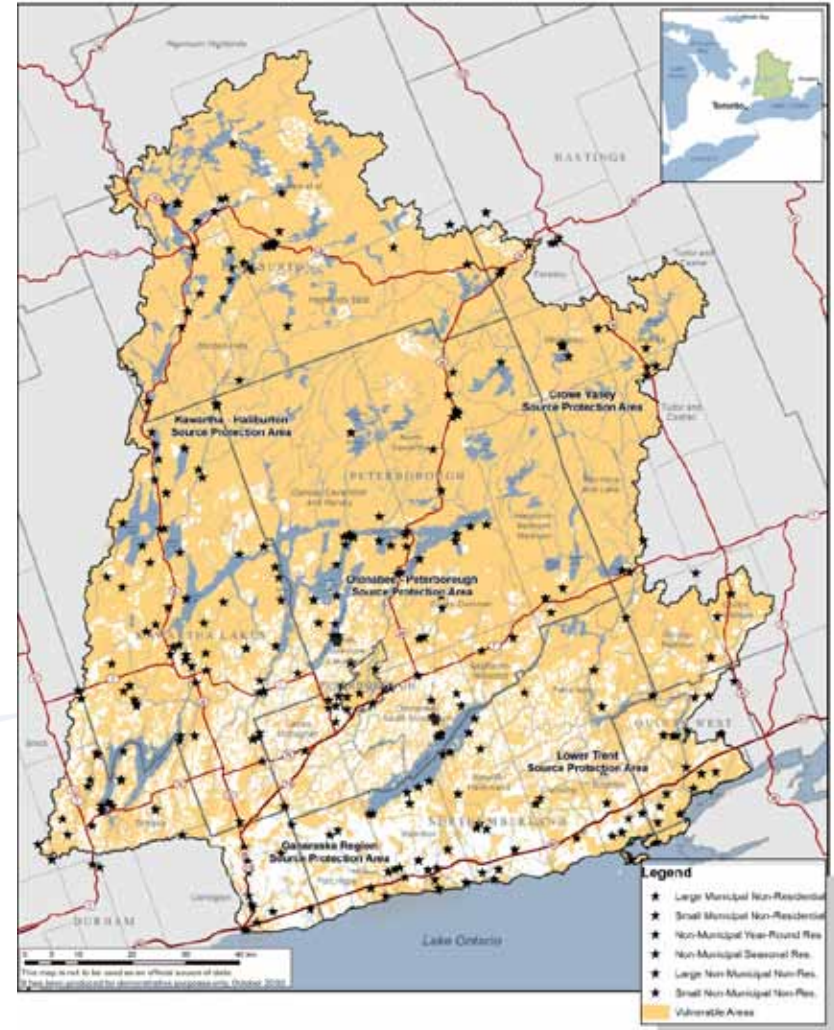
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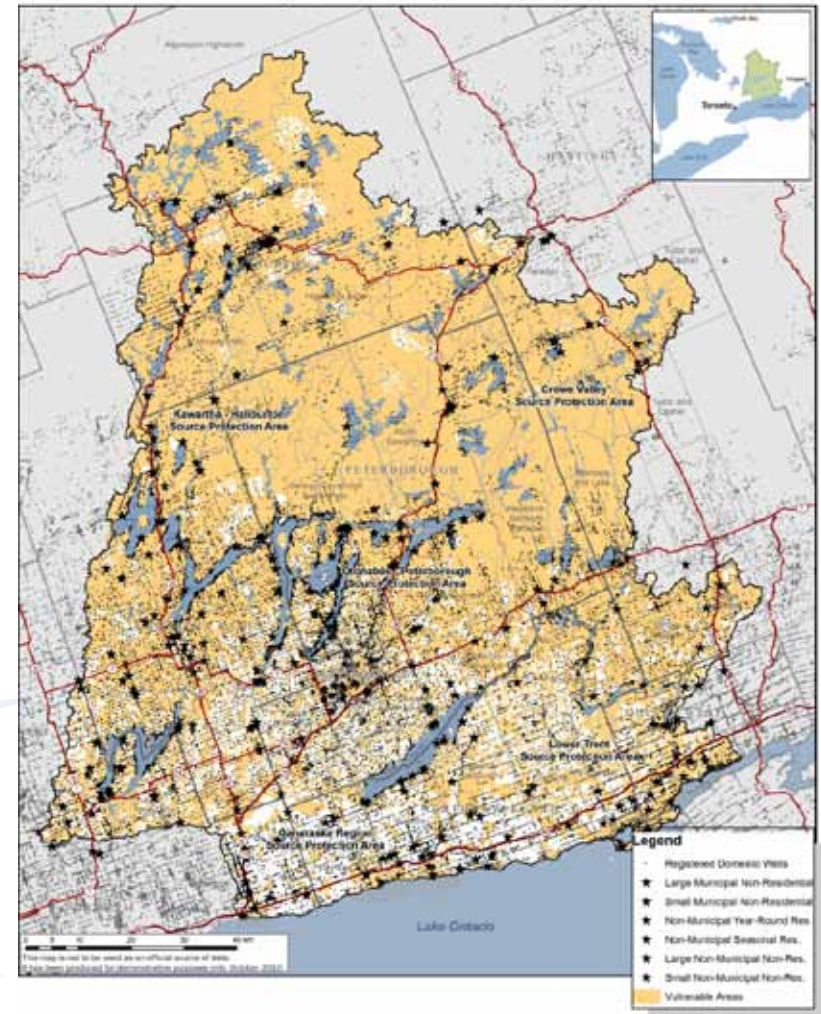
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PRIVATE WELLS

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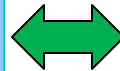


CONTENT OF CLEAN WATER ACT AND TECHNICAL RULES

Drinking water issues relating to the quality and quantity of water in each of the vulnerable areas (CWA, 2006).



Activity can only be a moderate drinking water threat when the issue is related to a drinking water system NOT in a WHPA or IPZ



Description of the drinking water issue shall be accompanied by the delineation of an issue contributing area.

SOURCES OF DATA

- Two databases available:
 - Drinking Water Information System (DWIS)
 - 2005 - 2008
 - SWIP/ MOE Audit
 - 1998 – 2007

PARAMETERS

- General Chemistry
- Ions
- Metals
- Nutrients
- Organics

SCOPING EXERCISE

- 499 “other” drinking water systems in provincial databases from within TCC vulnerable areas
 - Preliminary assessment suggests:
 - 13(66) systems with chemical or aesthetic issues
 - Related to nitrate, nitrate-nitrite, benzene, uranium, sodium, 2,4 – D.



EVALUATION OF DRINKING WATER ISSUES

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CONSIDERATIONS

- ü There are likely between 500 – 1000 “other” drinking water systems in the TCC.
 - Databases incomplete – number of systems, data available
- ü Private wells à limited chemical water quality data
- ü Since these systems are not municipal systems, any activity that is causing the drinking water issue would at most be defined as a moderate drinking water threat.
- ü Cannot identify *Issue Contributing Area*
- ü Regulations under the *Health and Promotion Act*
- ü Help identify systems that municipalities may want to elevate in next round of source protection planning.

RECOMMENDATION

That the Trent Conservation Coalition Source Protection Committee not include an issues evaluation on “Other” Drinking Water Systems in the Updated Assessment Reports for the Source Protection Region.

