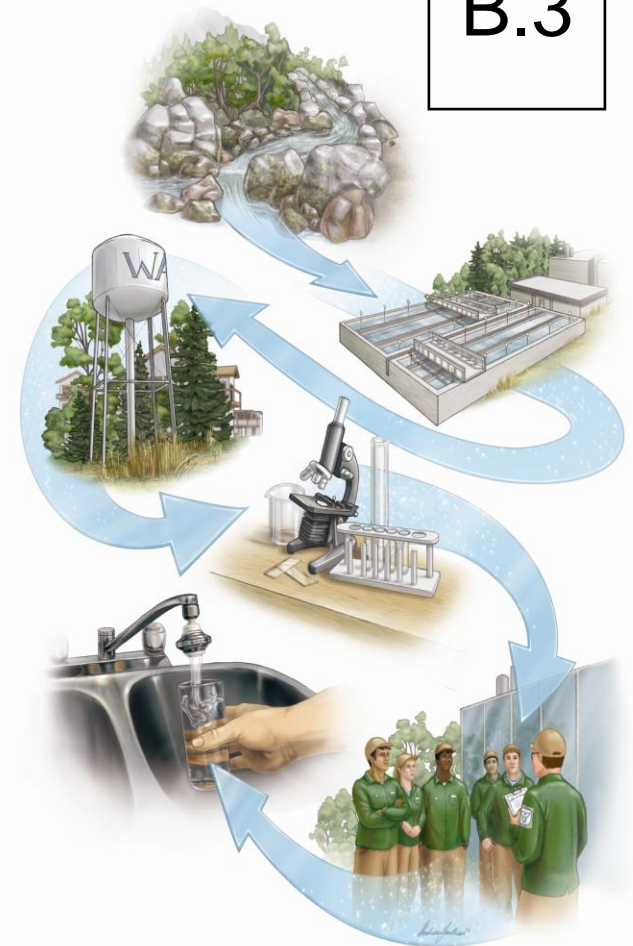


# ***Draft Proposed Assessment Report***

***Presentation to Council  
Town of the Blue Mountains  
May 10, 2010***



## **CLEAN WATER ACT, 2006**

**The purpose of this Act is to protect existing and future sources of drinking water from contamination and over use.**

**Four vulnerable areas under Clean Water Act:**

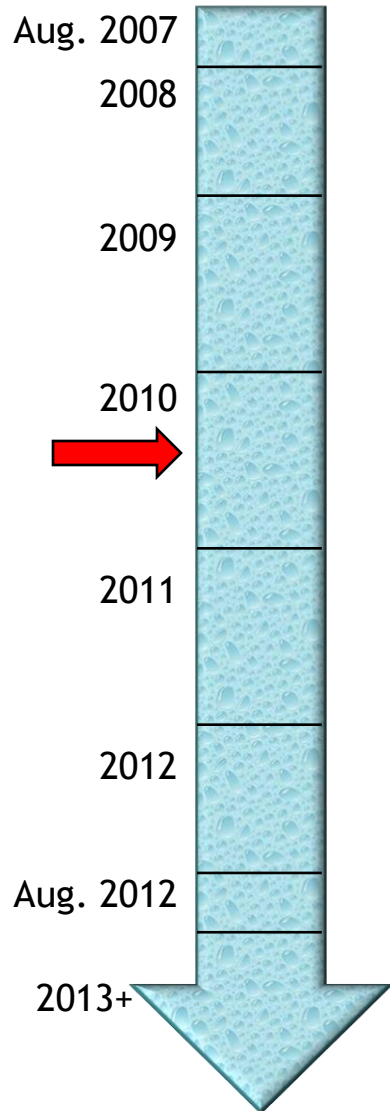
*Wellhead protection areas*

*Surface water intake protection zones*

*Significant groundwater recharge areas*

*Highly vulnerable aquifers*

## When will Source Protection take place?



**2007 - Chair Mike Traynor appointed August 17/07  
Source Protection Committee established**

**2008 - Prepare Terms of Reference**

**2009 - Submit Terms of Reference  
Begin Draft Proposed Assessment Report**

**2010 - Submit Proposed Assessment Report by  
Sept. 30/10**

**2011 - Preparation of Draft Source Protection Plan  
including policies on activities and threats**

**2012 - Submit Proposed Source Protection Plan by  
Aug 20/12**

**2013+ Implementation of Source Protection Plan;  
Monitoring and Reporting; Review Plan**

# Assessment Report

## Six step process

- 1. Complete Technical Work**  
*(April 2010)*
- 2. Complete Draft Proposed Assessment Report**  
*(April)*
- 3. Draft Proposed Assessment Report Consultation**  
*(May, early June)*
- 4. Proposed Assessment Report Preparation - SPC considers comments**  
*(June)*
- 5. Proposed Assessment Report Consultation** *(July)*
- 6. Proposed Assessment Report submission**  
*(September)*



# Assessment Report

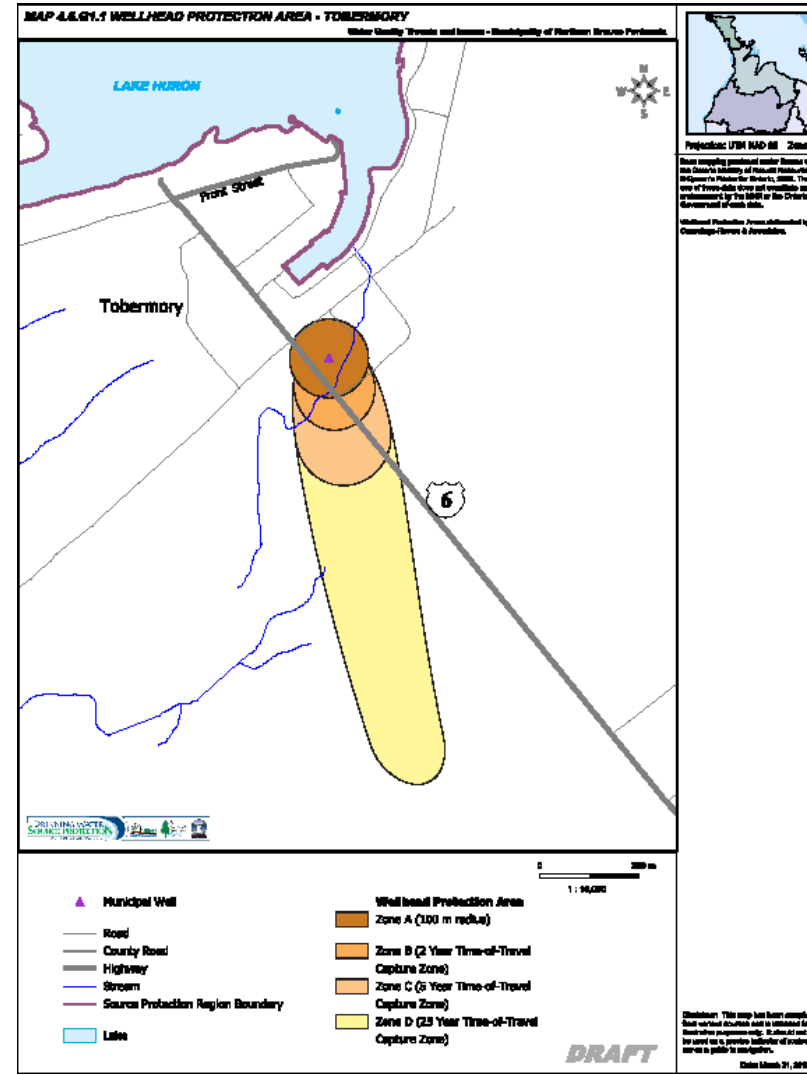
## Contents

- **Watershed Characterization**
- **Water Budget**
- **Vulnerability Analysis**
- **Water Quality Threats and Issues**

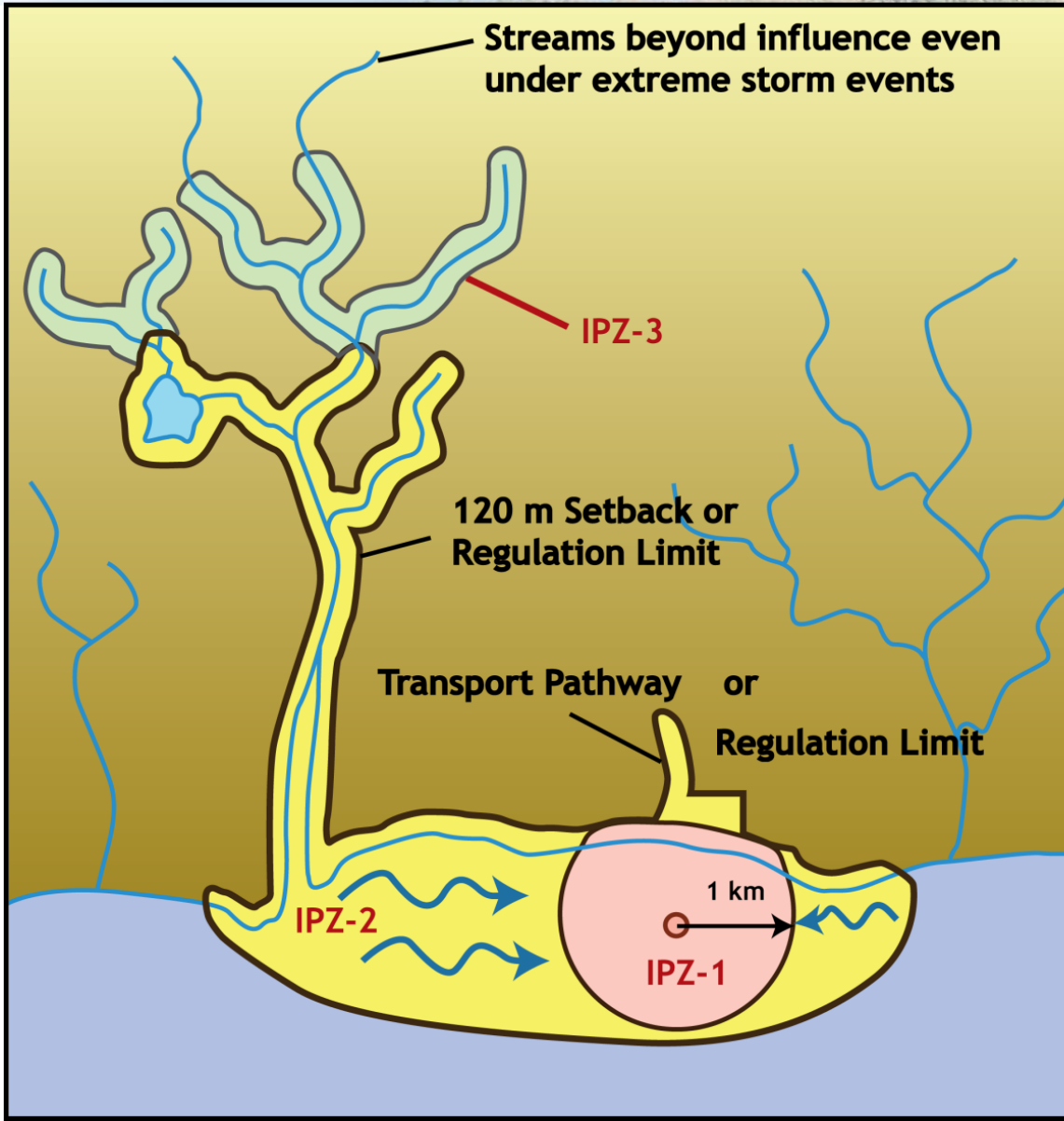


# Assessment Report - Tasks for Drinking Water Systems

1. Identify Municipal Drinking Water System
2. Assess Vulnerability
  - Delineate Wellhead Protection Area (WHPA) for groundwater system, *or*
  - Delineate Intake Protection Zone (IPZ) for surface water system
3. Threats
  - Threats Inventory
  - Threats Evaluation
  - Identify Contaminant of Concern
  - Provide Hazard Rating
4. Issues
  - Issues Identification
  - Issues Evaluation
  - Linking Issues to Threats



## Intake Protection Zones Type A Intakes: Great Lake



- Intake
- Prevailing Current
- Waterbody (Stream or Lake)
- IPZ-1
- IPZ-2
- IPZ-3

# Table of Drinking Water Threats Example:

**TABLE 2 – DRINKING WATER THREATS - PATHOGENS**

DRINKING WATER THREAT:	Under the following CIRCUMSTANCES:	Area within Vulnerable Area	Threat is Significant in Areas with a Vulnerability Score of:	Threat is Moderate in Areas with a Vulnerability Score of:	Threat is Low in Areas with a Vulnerability Score of:
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
<b>The handling and storage of non-agricultural source material</b>	1. The non-agricultural source material contains material generated by a seafood processing operation, a dairy producer, a dairy product manufacturing operation, an animal food manufacturing operation that manufactures food from animal sources, or a pulp and paper mill, and any portion of the material is stored at or above grade. 2. A spill of the material or runoff from an area where the material is stored may result in the presence of one or more pathogens in groundwater or surface water.	IPZ-1, IPZ-2, IPZ-3 & WHPA-E	-	9 - 10	6 - 8.1
		WHPA-A & WHPA-B	-	10	8
	1. The non-agricultural source material contains material generated by a meat plant, and any portion of the material is stored at or above grade. 2. A spill of the material or runoff from an area where the material is stored may result in the presence of one or more pathogens in groundwater or surface water.	IPZ-1, IPZ-2, IPZ-3 & WHPA-E	8 - 10	6 - 7.2	4.2 - 5.6
		WHPA-A & WHPA-B	10	8	6

# Table of Drinking Water Threats

## Example:

<b>DRINKING WATER THREAT:</b>	
<b>Column 1</b>	
<b>The handling and storage of non-agricultural source material</b>	

# Table of Drinking Water Threats

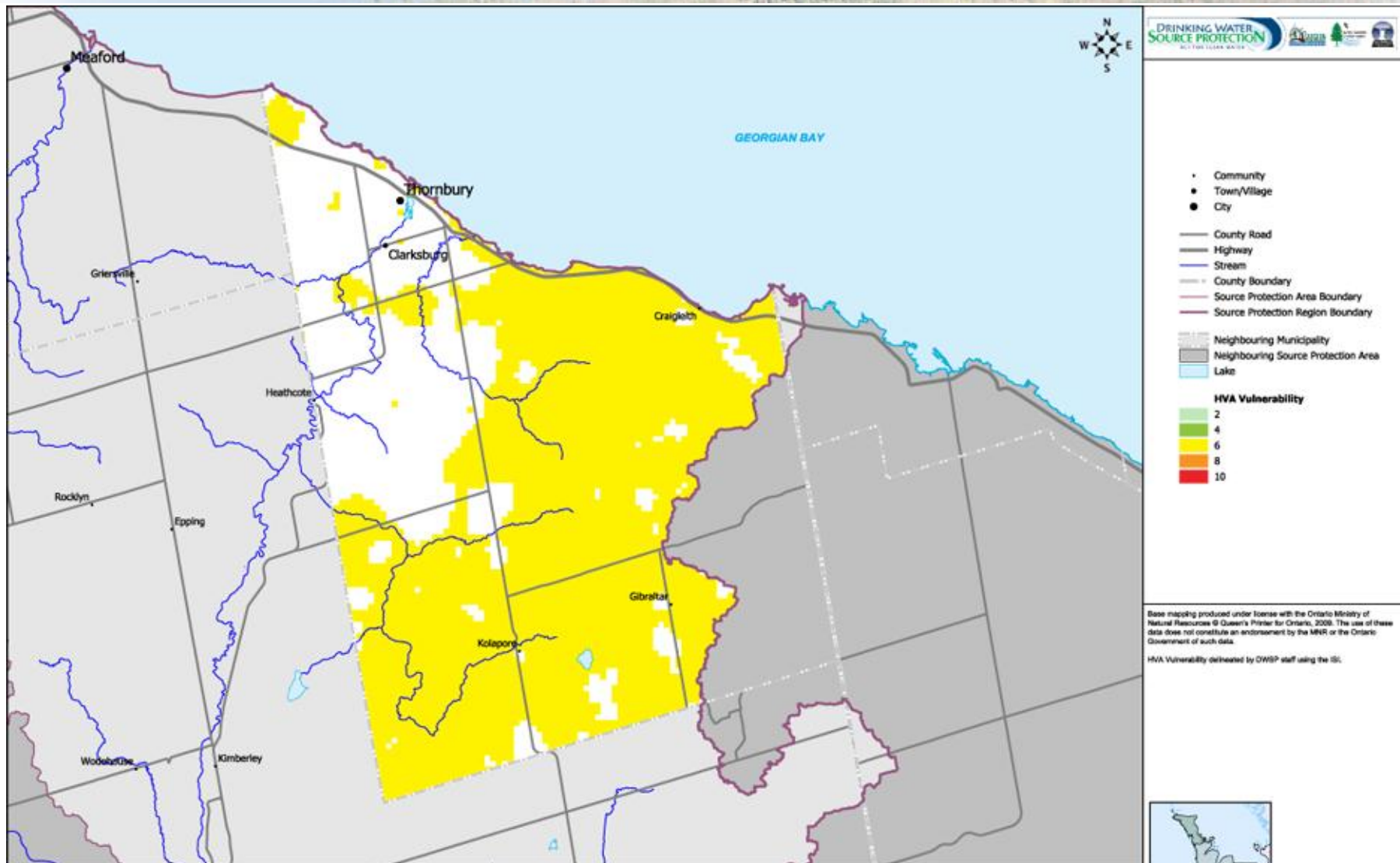
## Example:

Under the following CIRCUMSTANCES:	
	Column 2
1.	<p>1. The non-agricultural source material contains material generated by a seafood processing operation, a dairy producer, a dairy product manufacturing operation, an animal food manufacturing operation that manufactures food from animal sources, or a pulp and paper mill, and any portion of the material is stored at or above grade.</p> <p>2. A spill of the material or runoff from an area where the material is stored may result in the presence of one or more pathogens in groundwater or surface water.</p>
	<p>1. The non-agricultural source material contains material generated by a meat plant, and any portion of the material is stored at or above grade.</p> <p>2. A spill of the material or runoff from an area where the material is stored may result in the presence of one or more pathogens in groundwater or surface water.</p>

# Table of Drinking Water Threats

## Example:

Area within Vulnerable Area	Threat is Significant in Areas with a Vulnerability Score of:	Threat is Moderate in Areas with a Vulnerability Score of:	Threat is Low in Areas with a Vulnerability Score of:
Column 3	Column 4	Column 5	Column 6
IPZ-1, IPZ-2, IPZ-3 & WHPA-E	-	9 - 10	6 - 8.1
WHPA-A & WHPA-B	-	10	8
IPZ-1, IPZ-2, IPZ-3 & WHPA-E	8 - 10	6 - 7.2	4.2 - 5.6
WHPA-A & WHPA-B	10	8	6



**MAP 4.2.M3 HIGHLY VULNERABLE AQUIFER VULNERABILITY**

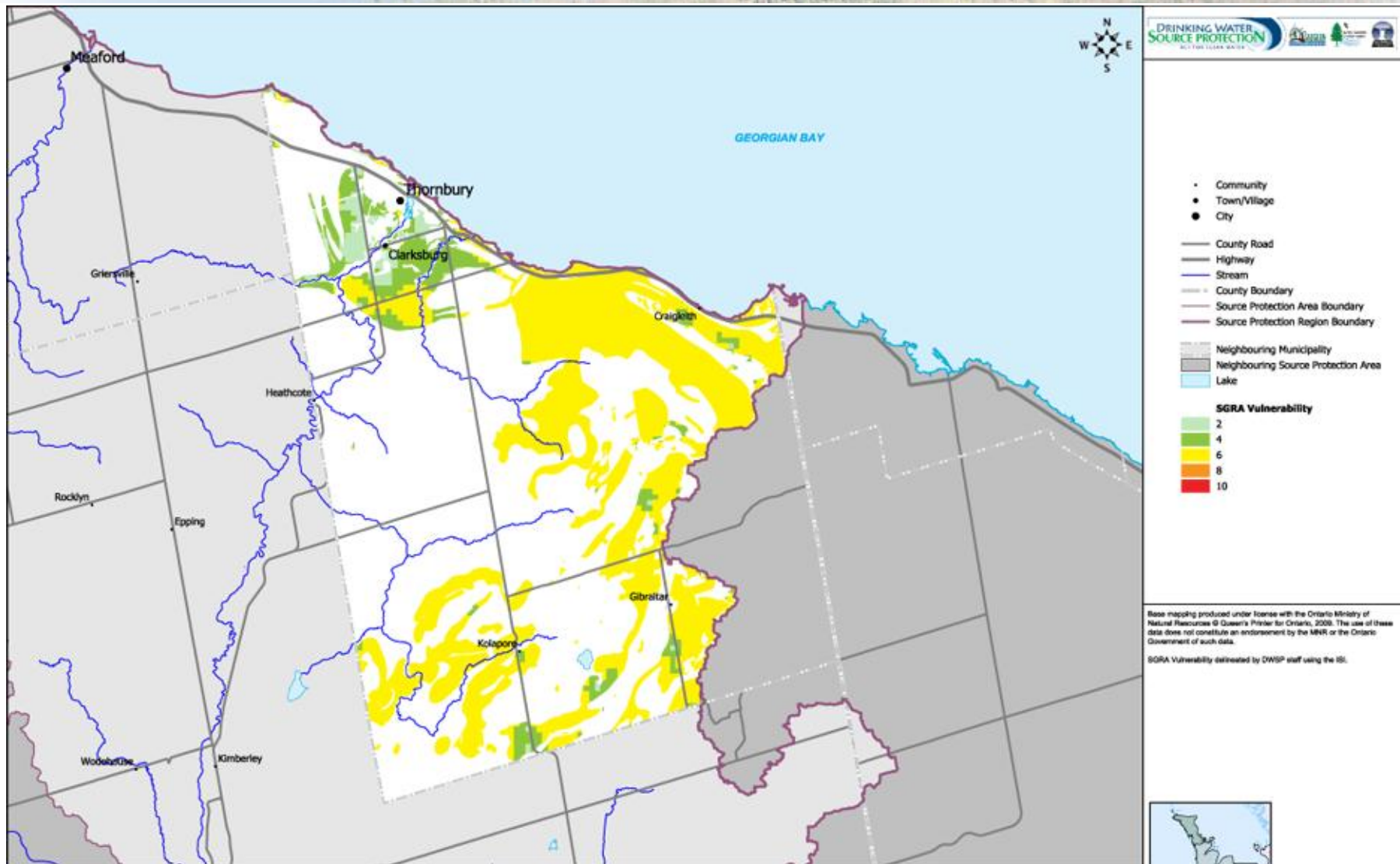
Water Quality Threats and Issues - Town of the Blue Mountains

Disclaimer: This map has been compiled from various sources and is intended for illustrative purposes only. It should not be used as a precise indicator of routes nor as a guide to navigation.



**DRAFT**

May 3, 2010



- Community
  - Town/Village
  - City
  - County Road
  - Highway
  - Stream
  - County Boundary
  - Source Protection Area Boundary
  - Source Protection Region Boundary
  - Neighbouring Municipality
  - Neighbouring Source Protection Area
  - Lake
- SGRA Vulnerability**
- 2
  - 4
  - 6
  - 8
  - 10

Base mapping produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2008. The use of these data does not constitute an endorsement by the MNR or the Ontario Government of such data.

SGRA Vulnerability estimated by DWSP staff using the ISI.



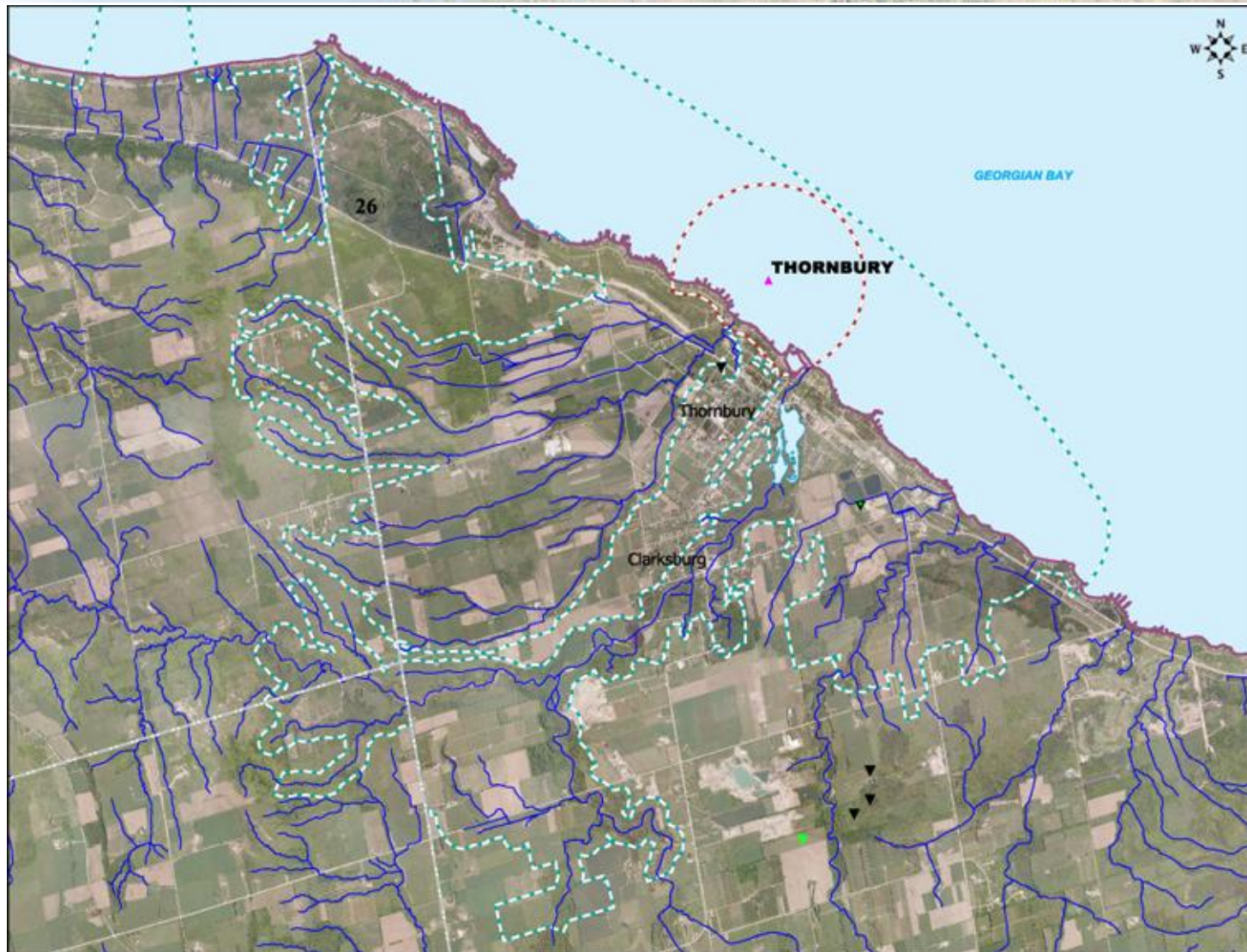
**DRAFT**

May 3, 2010

**MAP 4.2.M4 SIGNIFICANT GROUNDWATER RECHARGE AREA VULNERABILITY**

Water Quality Threats and Issues - Town of the Blue Mountains

Disclaimer: This map has been compiled from various sources and is intended for illustrative purposes only. It should not be used as a precise indicator of routes nor as a guide to navigation.



- Municipal Intake
- Inactive Landfill
- Active Landfill
- Waste Water Treatment Plant
- Stream
- Municipal Boundary
- Source Protection Region Boundary
- Lake
- Intake Protection Zones**
  - IPZ1 (120m Shoreline Buffer)
  - IPZ2 (2 Hour Time-of-Travel Capture Zone)

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Intake Protection Zones delineated by Startec.

South Western Ontario Orthophotography Project (SWOOP). These images were taken in 2006 at 30 cm resolution by First Base Solutions Inc © 2006.



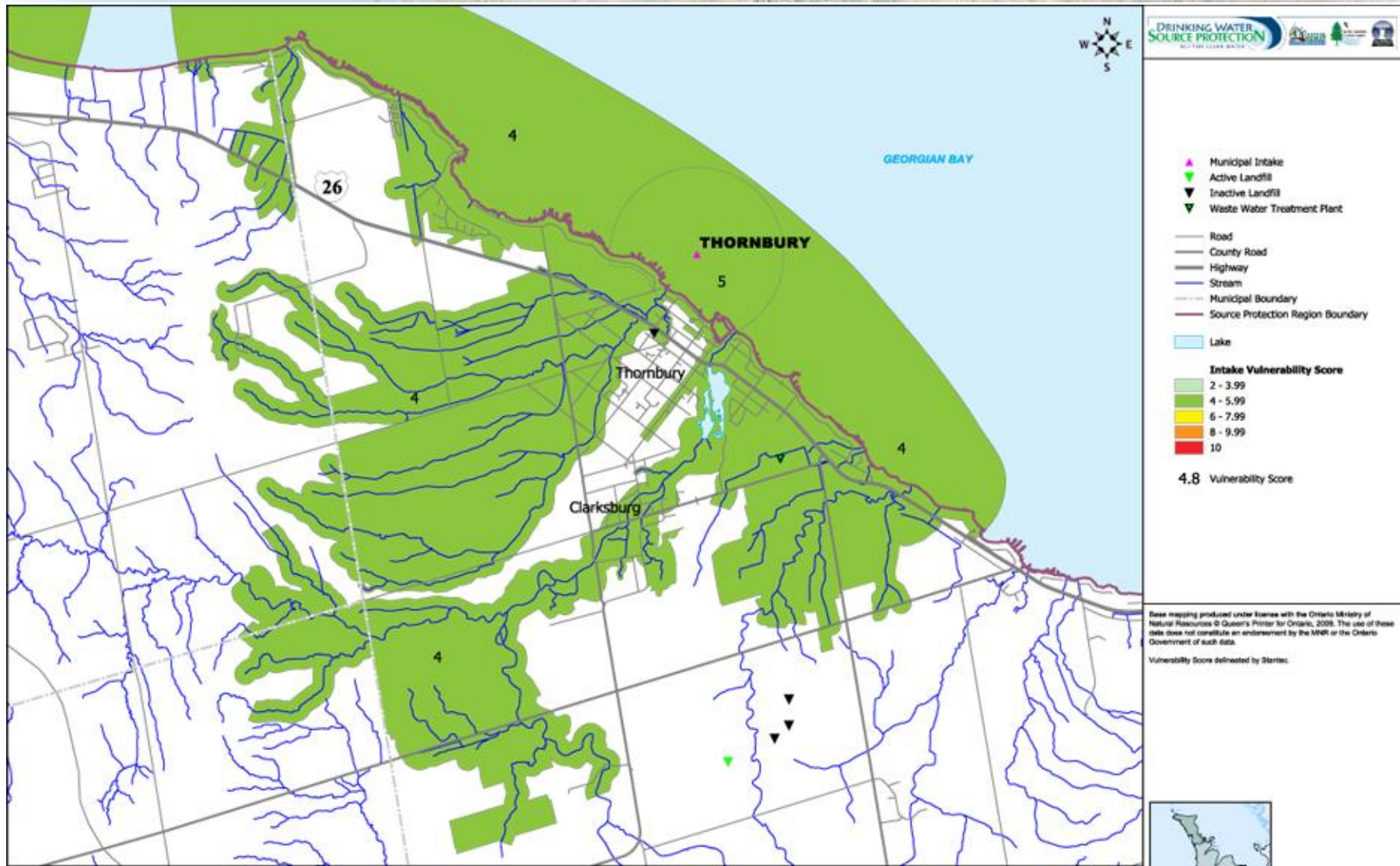
**DRAFT**

May 3, 2010

**MAP 4.2.S1.3 INTAKE PROTECTION ZONE - THORNBURY**

Water Quality Threats and Issues - Town of the Blue Mountains

Disclaimer: This map has been compiled from various sources and is intended for illustrative purposes only. It should not be used as a precise indicator of routes nor as a guide to navigation.



- ▲ Municipal Intake
- ▼ Active Landfill
- ▼ Inactive Landfill
- ▼ Waste Water Treatment Plant
- Road
- County Road
- Highway
- Stream
- Municipal Boundary
- Source Protection Region Boundary
- Lake

- Intake Vulnerability Score**
- 2 - 3.99
  - 4 - 5.99
  - 6 - 7.99
  - 8 - 9.99
  - 10

**4.8** Vulnerability Score

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Vulnerability Score delineated by Starnec.



**DRAFT**

May 3, 2010

**MAP 4.2.S1.4 INTAKE VULNERABILITY - THORNBURY**  
Water Quality Threats and Issues - Town of the Blue Mountains

0 1000 m Projection: UTM NAD 83 Zone 17 1 : 40,000

Disclaimer: This map has been compiled from various sources and is intended for illustrative purposes only. It should not be used as a precise indicator of routes nor as a guide to navigation.





# Town of the Blue Mountains Drinking Water System Summary of Potential Significant Threats

<i>IPZ Name</i>	<i>Number of "are or would be significant" threats</i>				<i>Number of properties with "are or would be significant" threats</i>			
	<i>Chemical</i>	<i>DNAPL</i>	<i>Pathogen</i>	<i>Total</i>	<i>Agricultural</i>	<i>Residential</i>	<i>Commercial, Industrial, Infrastructure, Institutional, Municipal, Recreational</i>	<i>Total</i>
Thornbury	0	0	0	0	0	0	0	0
<b>TOTAL</b>				<b>0</b>				<b>0</b>

# Public Meetings

- **GSCA OFFICE: Wednesday, May 19, 2010 - 2:00 - 5:00pm**
- **Beaver Valley Community Centre: Wed, May 26, 2010 - 4:00 - 8:00pm**
- **Walkerton Agr. Society Building #2: Thurs. May 27, 4:00 - 8:00 pm**
- **SPC Meeting - Holstein : Fri. May 28, 2010 - 2:00 - 4:00pm**
- **Amabel Sauble School, Sauble Beach:  
Sat. May 29, 2010 - 10:00 - Noon, 1:00 - 3:00pm**
- **Mount Forest Fire Hall: Mon. May 31, 2010 - 4:00 - 8:00pm**
- **Davidson Centre, Kincardine: Wed. June 02, 2010 - 4:00 - 8:00pm**
- **Northern Bruce Peninsula Municipal Office:  
Thur. June 03, 2010 - 4:00 - 8:00pm**



# FOR MORE INFORMATION:

Visit our Website

[www.waterprotection.ca](http://www.waterprotection.ca)

or Phone

**(519) 470-3000**