

## **Great Lakes Considerations under the *Clean Water Act*, 2006**

# **CTC Draft Proposed Terms of Reference**

**August 12, 2008**

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Manager*

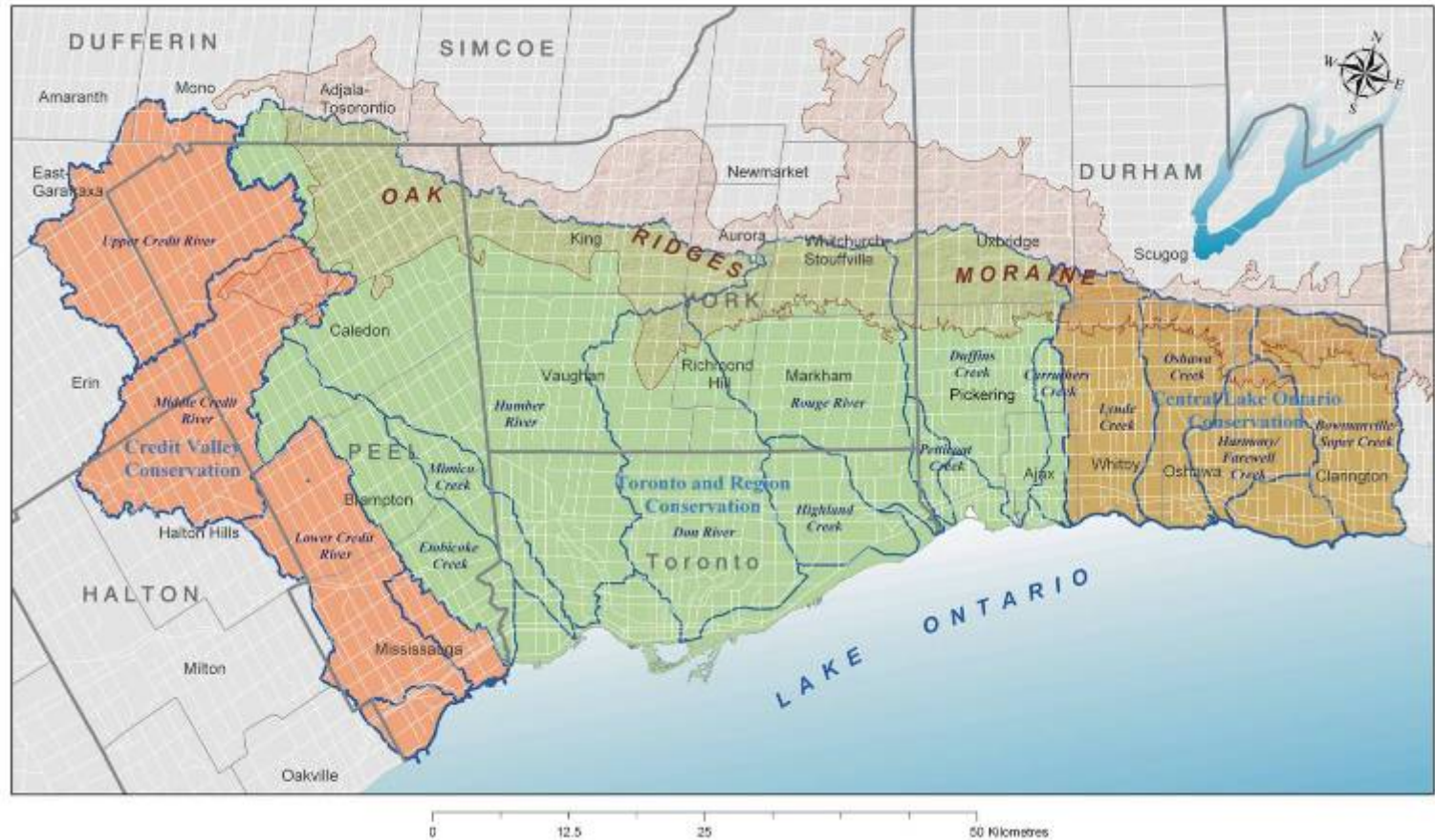
## What is the *Clean Water Act, 2006*

- Requires local communities to look at the existing and potential threats to their municipal drinking water and set out and implement the actions necessary to reduce or eliminate significant threats.
- Empowers communities to take action to prevent threats from becoming significant.
- Requires public participation on every local source protection plan. This means everyone in the community gets a chance to contribute to the planning process.
- Requires that all plans and actions are based on sound science.

## What are Terms of Reference & Why Should I Care

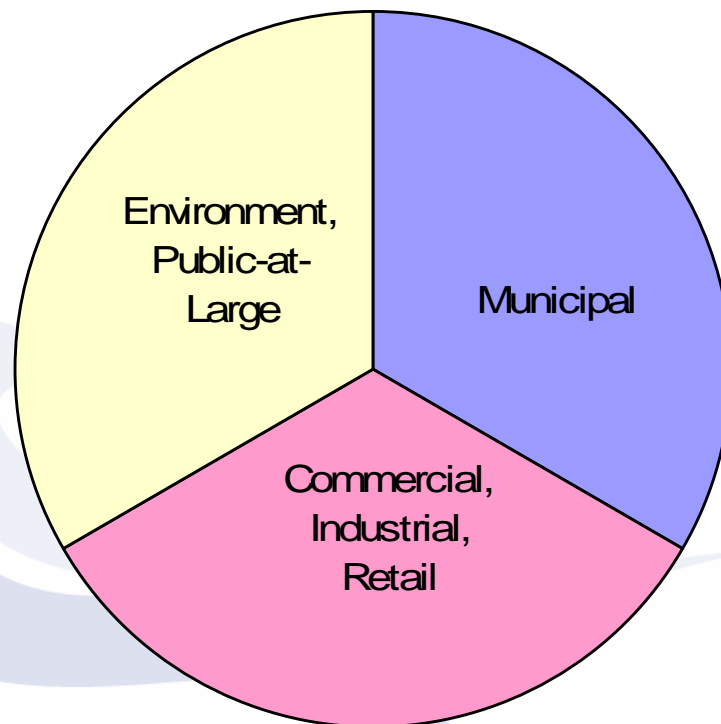
- To provide a work plan for the completion of:
  - Assessment Report - science
  - Source Protection Plan – policy
- Separate Terms of Reference for each Source Protection Area
- *Your opportunity to tell us if there are other things we should be assessing or considering*

- 3 Source Protection Areas in CTC
- Toronto & Region Source Protection Authority (lead authority)
- Central Lake Ontario Source Protection Authority
- Credit Valley Source Protection Authority



**CTC Source Protection Region**

## CTC Source Protection Committee Composition



- Locally driven process with knowledgeable cross-section of stakeholders
- 21 members plus chair (Susan Self)
- CTC Municipal representative for Peel area– Mark Schiller

## Source Protection Committees Deliverables

<b>SPC responsible for three key (3) deliverables:</b>	<b>CTC</b>
Terms of Reference	October 20, 2008
Assessment Report	February, 2010*
Source Protection Plan	August 20, 2012
* estimated	



## Great Lakes Considerations under the *Clean Water Act, 2006*

Specific requirements for Great Lakes drinking water systems and larger Great Lakes issues

Also gives the Minister authority to act:

- where issue may go beyond a single Source Protection Area and may be basin-wide – need for collaboration.
- may establish Great Lakes advisory committee(s)
- may establish target(s) for one or more SP Area that contributes water to the Great Lakes.
- If a Great Lakes target is set, the Minister may direct the SPA to recommend GL policies for the SPP.
- The Assessment Report and SPP must consider existing provincial, federal, and international Great Lakes Agreements, Treaties and Charters.

## Consideration of Great Lake Agreements

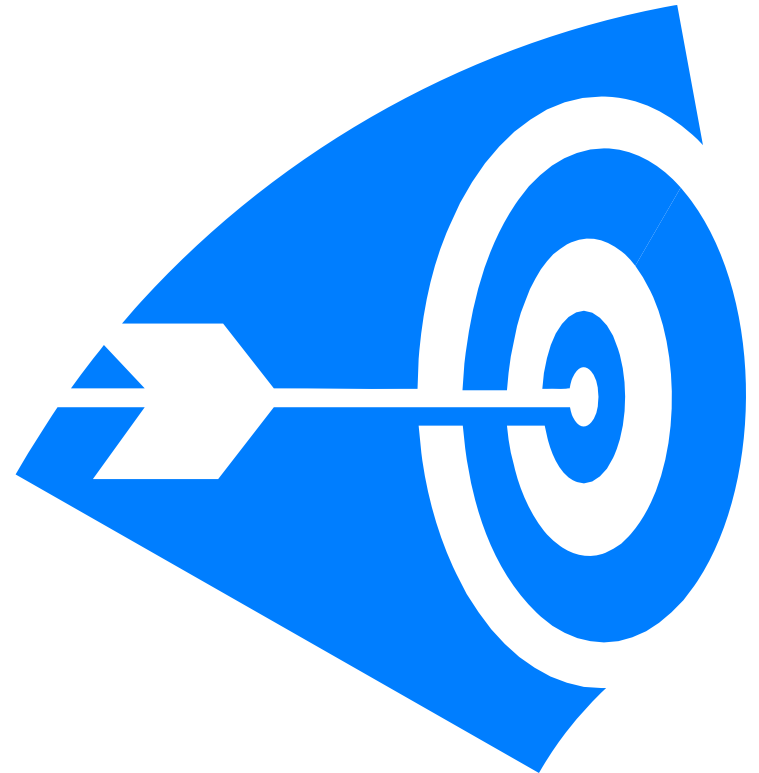
*The Terms of Reference (for the preparation of the Assessment Report and Source Protection Plan) requires consideration of the following documents:*

- *The Great Lakes Water Quality Agreement*
- *The Great Lakes Charter*
- *The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement*
- *The Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem*

*Section 14 of the CWA*

## Process to Setting Great Lakes Targets

- Local identification of threats / issues
- Collaborate - Are there common issues or shared threats?
- Collaborate - Trace the issue back to the activity
- Collaborate – Investigate solutions / can we manage the issue locally?
- Advise the Minister of areas where Great Lakes targets may be an appropriate tool
- Minister may set target or establish a committee to make recommendations around setting targets



## Local identification of threats / issues

- Through technical studies identify local threats / issues

## Collaborate - Are there common issues or shared threats?

- Work with neighbouring SPCs to determine if you have common issues
- Combined efforts to develop technical components of the assessment report (data sharing, collaborative research)
- Determine if threats from one SPA are contributing to an issue in another SPA/SPR
  - Collaboration can be facilitated through SPC working groups on Great Lakes and SPC Chair's Committee

## **Collaborate - Trace the issue back to the activity**

- SPCs in the same Great Lakes Basin should work together to link the issue back to the land use activity causing the issue

## **Collaborate – Investigate solutions / can we manage the issue locally?**

- Should we extend the Great Lakes IPZ into another SPA / SPR?
- Work together to come up with solutions and broader approaches to address issues and threats
- Can policies in the Source Protection Plans address common issues / threats?

## **Advise the Minister of areas where Great Lakes targets may be an appropriate tool**

- Where SPCs determine that the local or joint area approach is not sufficient, then the Minister should be advised.

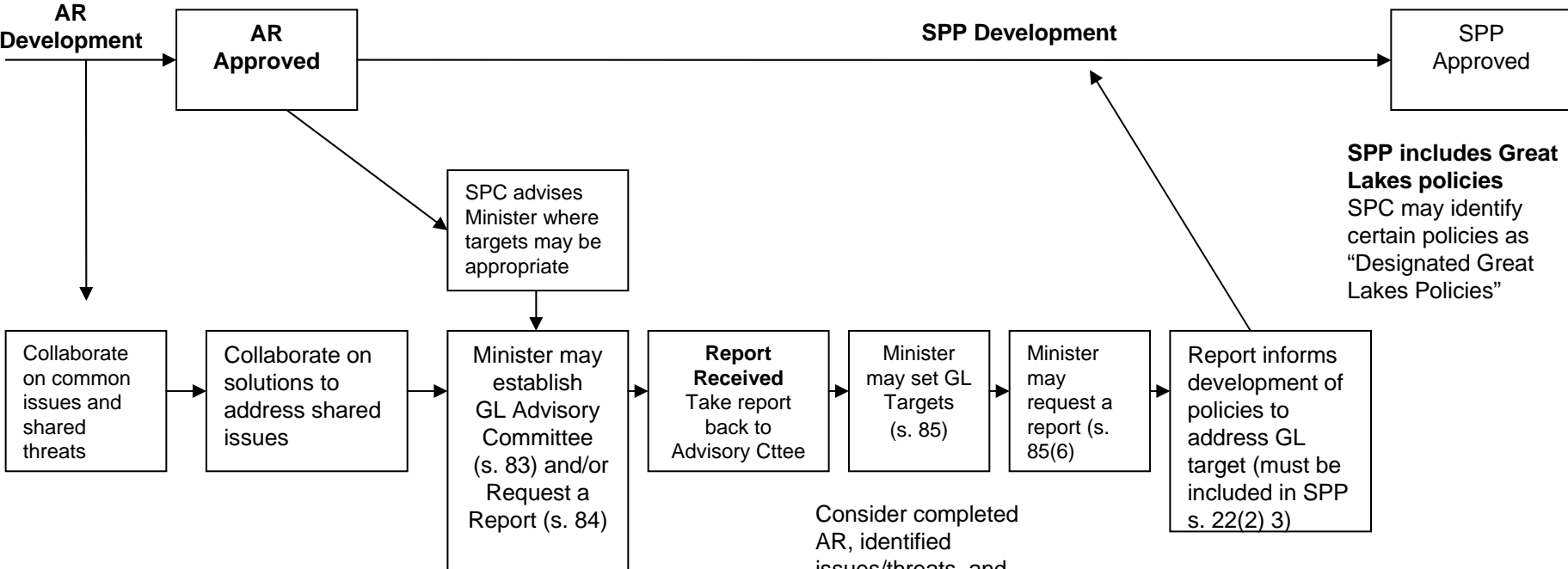
## **Minister may set target or establish a committee to make recommendations around setting targets**

- Minister may consider establishing a Great Lakes Advisory Committee, and/or set targets for a great lake, a source protection areas, or a group of areas

# Potential Process for Setting Great Lakes Targets



## Source Protection Planning Process



## Great Lakes Targets Process

Consider completed AR, identified issues/threats, and advice from Advisory Cttee

## Lake Ontario Collaborative



# Collaborative Study to Protect Lake Ontario Drinking Water



20 Drinking water systems  
33 Intakes

## Lake Ontario Collaborative Partners

- **Municipalities/Utilities**

- Prince Edward County
- Cobourg
- Port Hope
- Durham Region
- Toronto
- **Peel Region (Chair)**
- Halton Region
- Hamilton
- Niagara Region

- **Source Water Protection Regions:**

- Quinte
- Trent Conservation Coalition
- CTC
- Halton/Hamilton
- Niagara

- **Environment Canada**
- **MOE**

- Project Management by OCWA under contract to Peel Region

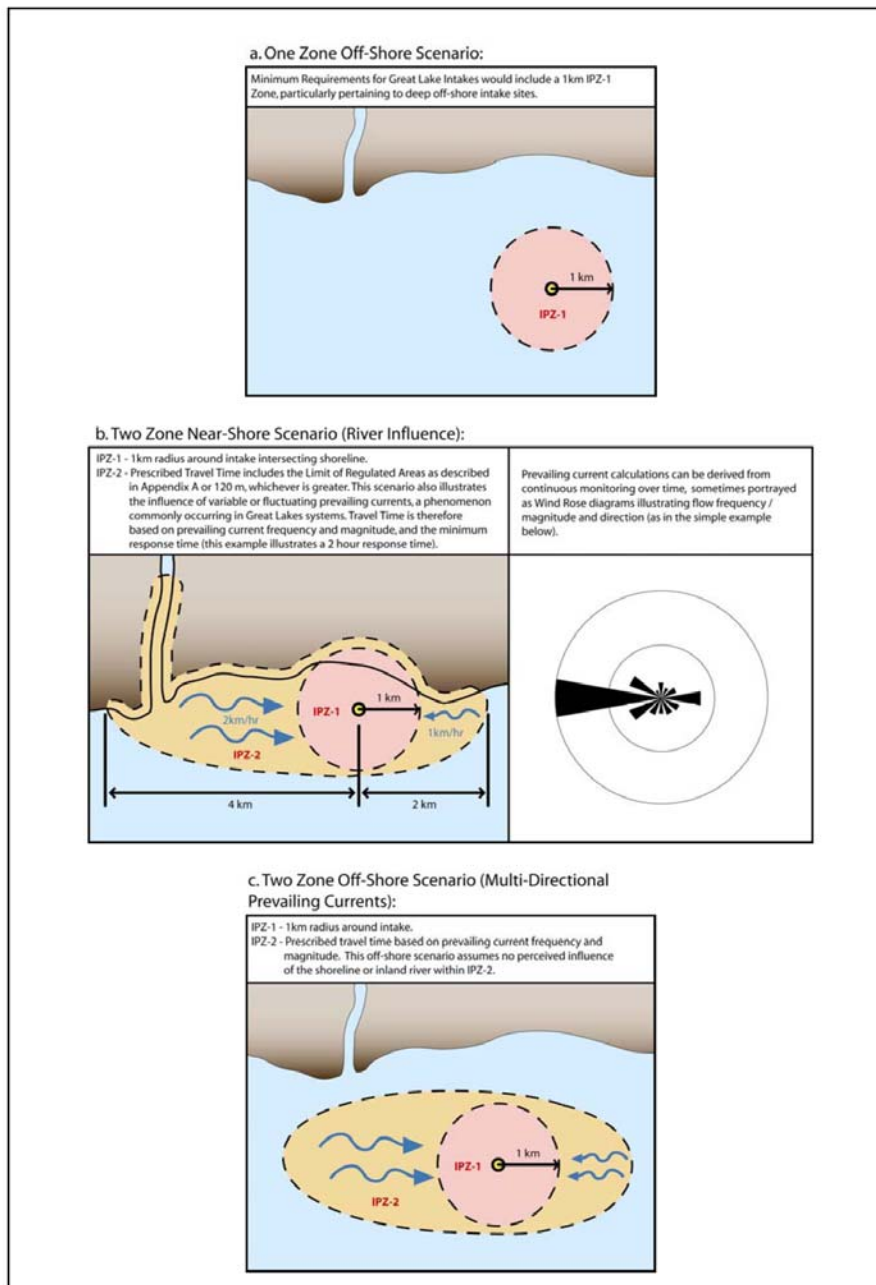


Figure 2: Some examples of intake protection zones for the Great Lakes.

**Durham Drinking Water  
Treatment Plant**

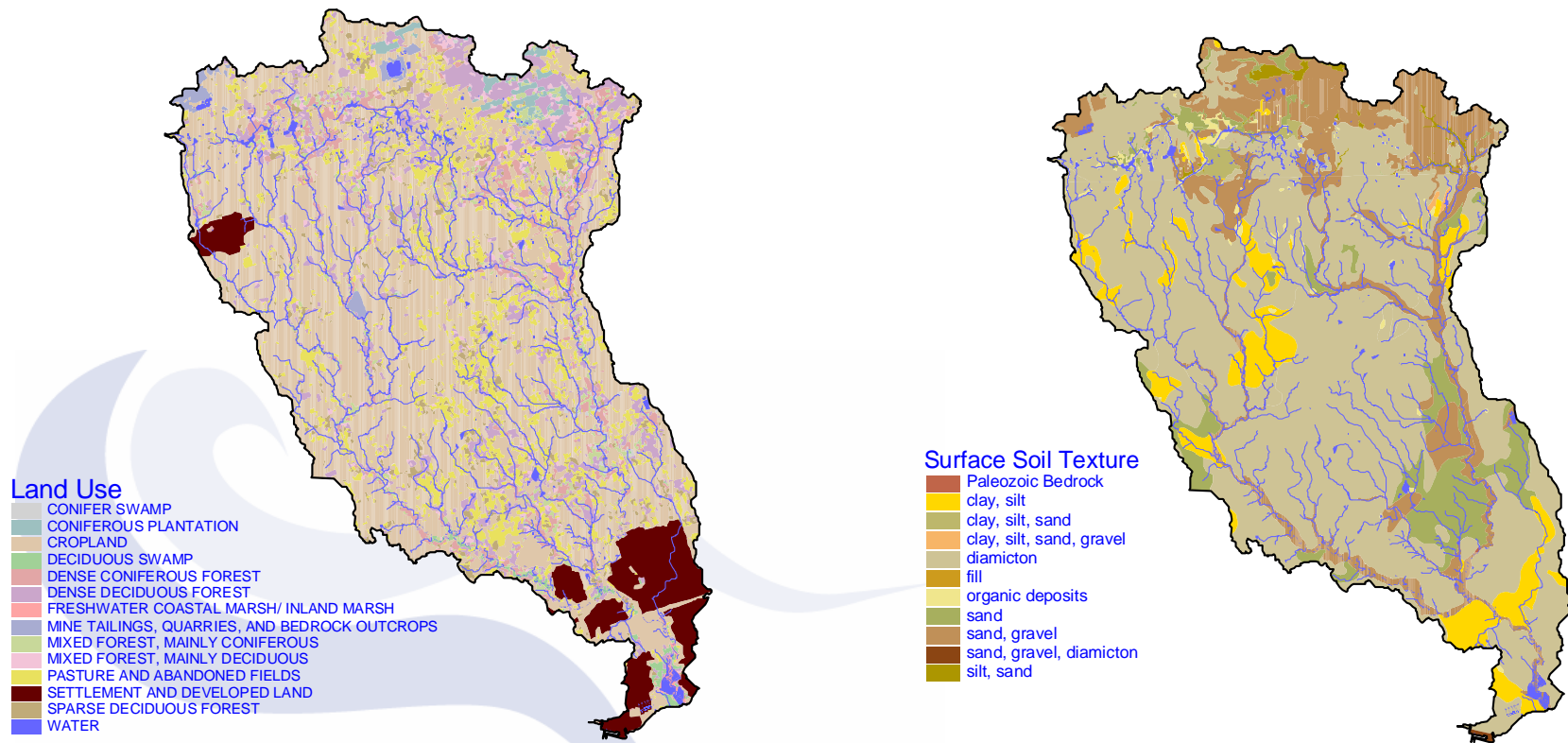
**Ajax**

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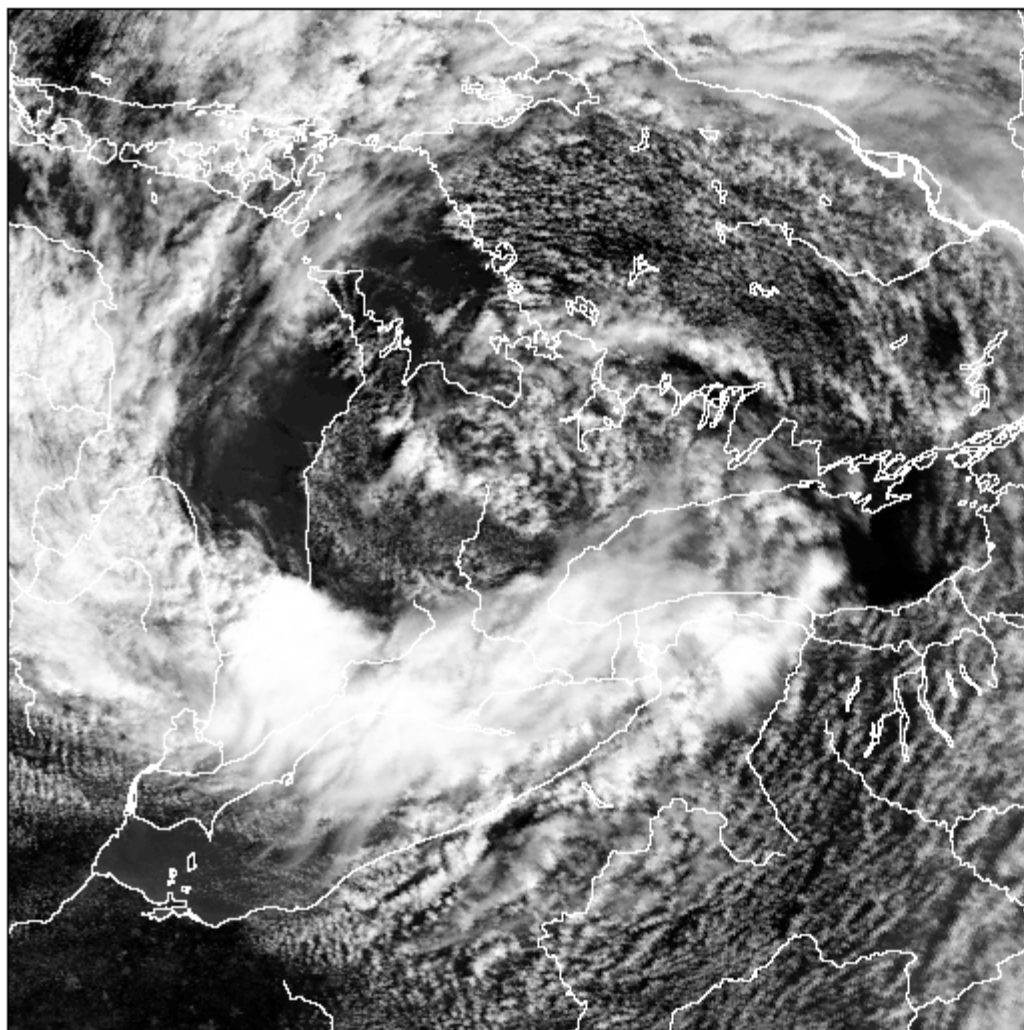
Duffins Creek Soils & Land Use

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



## Unit Area Loads Calculations

- This work builds upon unit area loads from PLUARG and other previous studies for nutrients on a watershed and subwatershed basis;
- Unit area loads are calculated based upon landcover percentages.



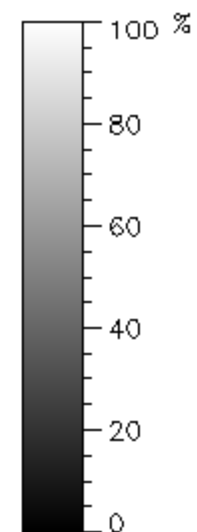
### CoastWatch

Histogram equalized channel 1  
2008\_223\_1606\_n17\_ge\_c1.png

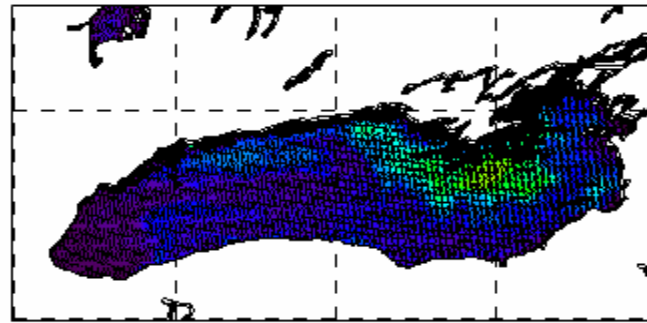
NOAA-17

08/10/2008 16:06 GMT

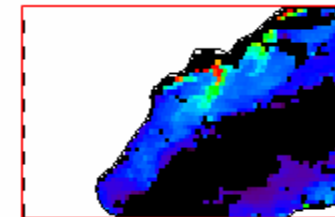
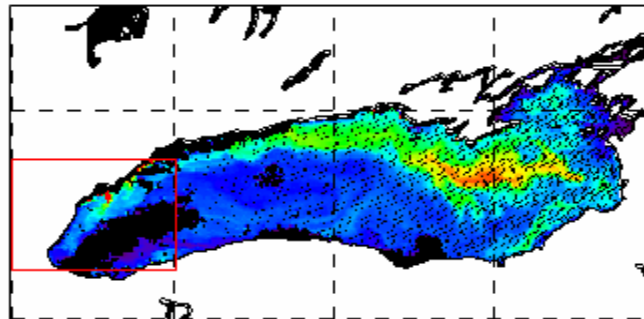
Reflectance



Satel  
August



MODIS nLw555, A2005229185000 (August 17<sup>th</sup> 2005)



MODIS nLw555, A2005233182500 (August 21<sup>st</sup> 2005)

## Current Work on LOC

- IPZ1 and 2 delineation complete
- Initial tributary loading estimates for all tributaries
- CAs with lab support from MOE refining tributary loading estimates with actual event monitoring in selected tributaries
- Sampling coordinated with 2008 Lake Ontario Survey being done with US, MOE, EC scientists
- EC doing open lake surveys, including pathogen analysis
- Threats and issues evaluation on hold while MOE is revising Technical Rules
- Seeking approval to do some scenario testing with different lake models and possible issue/threats (tritium spill, large sewage spill, large chemical spills with different types of chemicals) to help “road test” proposed rules

## Terms of Reference – What's Next?

- Public Consultation until September 21, 2008
- TOR revised and sent to the respective Source Protection Authority by Oct. 20, 2008
- Another 30 day public comment opportunity
- SPA sends to Minister of the Environment for approval by Dec. 20, 2008
- Minister approves – Assessment Reports due 1 year later to MOE Director for approval
- Source Protection Plans due by Aug 2012 for Minister approval