

# **Great Lakes Beach Issues from an Ontario Perspective**

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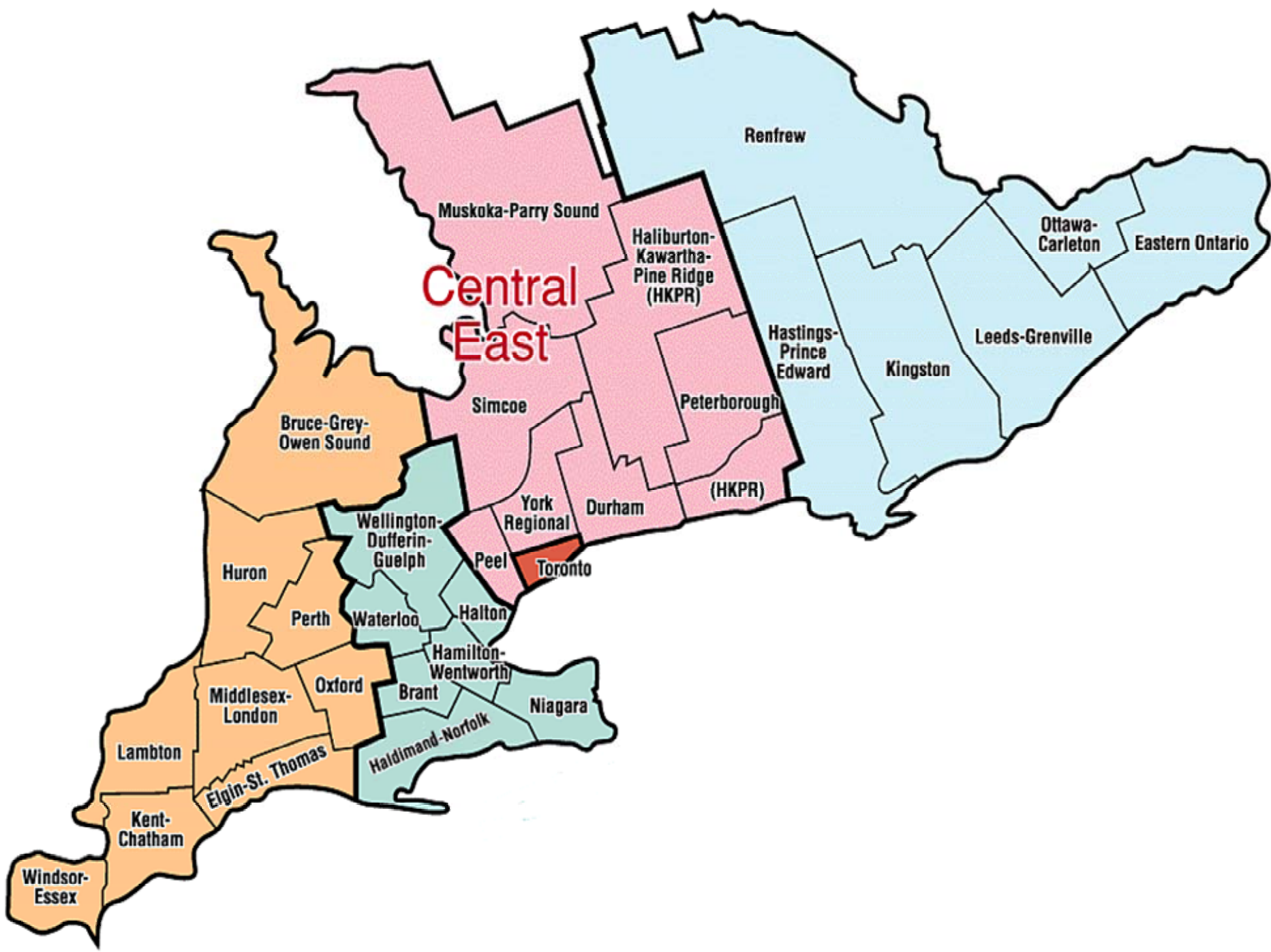
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Environment Canada

# Agenda

- Context (map of H.U., Beach Statistics)
- Jurisdictional Frame work (CCME, MOH role)
- Beach Management Protocol (MOH, framework, operation)
- Monitoring Procedure
- Federal involvement (SOLEC, program support)
- Future developments - Webbased, Protocol to regulation.

# Context

- Beach Stats (monitored)
- Map (of Health Units)
- Graphs of postings



# Central East

Renfrew

Muskoka-Parry Sound

Haliburton-  
Kawartha-  
Pine Ridge  
(HKPR)

Ottawa-  
Carleton

Eastern Ontario

Leeds-Grenville

Kingston

Hastings-  
Prince  
Edward

Simcoe

Peterborough

Bruce-Grey-  
Owen Sound

(HKPR)

York  
Regional

Durham

Wellington-  
Dufferin-  
Guelph

Peel

Toronto

Huron

Perth

Waterloo

Halton

Hamilton-  
Wentworth

Brant

Niagara

Middlesex-  
London

Oxford

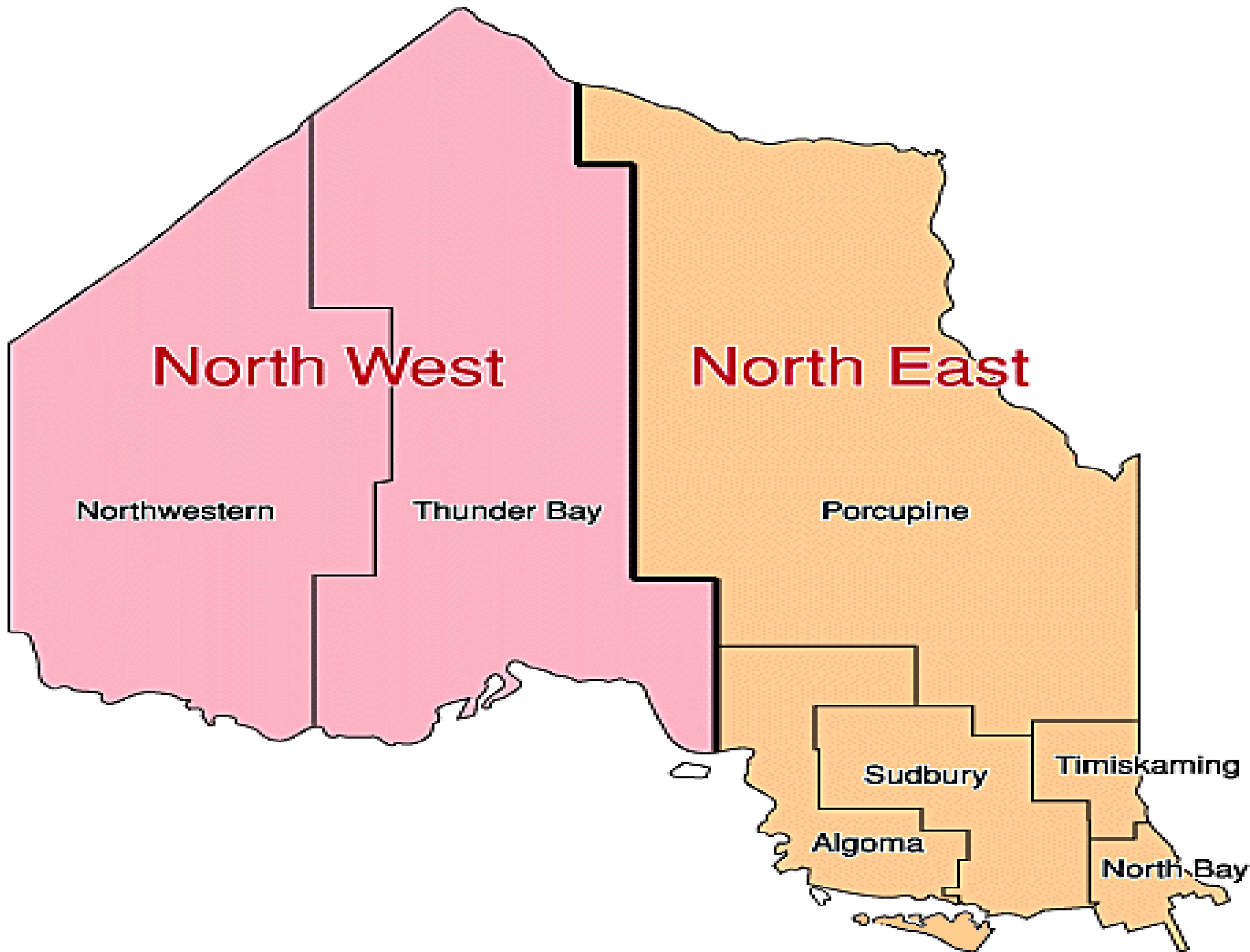
Lambton

Elgin-St. Thomas

Haldimand-Norfolk

Kent-  
Chatham

Windsor-  
Essex



# Common Causes of Postings

- Common causes of closures (CSOs, Bypasses, Poor Agricultural practices, spills)

# Jurisdictional Framework

- Federal - CCME (Health Canada) Standard Regulatory (FA) non-regulatory programs (SOLEC etc...)
- Provincial - Protocol, HPPA
- Other Departments/Ministries (Health Canada/MOE/Other connections as required)
- Case Study: Vinyl Chloride in St. Clair

# Provincial Legislation

- Mandated under the Ontario Health Protection & Promotion Act, 1997
- Safe Water Program of the Mandatory Health Services & Programs Guidelines
- Beach Management Protocol

# Case Study – Vinyl Chloride Spills in St. Clair River

- 2 spills on August 14 & 15 from a local industrial plant
- Levels were above the *Ontario Drinking Water Standards* of 2.0 ppb
- Spill occurred near intake pipe that supplies two communities with drinking water (15-20K residents)

# Agencies Involved & Roles

- Ontario Ministry of Environment
  - Notification
  - Modeling data
  - Testing and re-sampling
  - Coordination
  - Technical Advice
  - Determination cause of spill

# Agencies Involved & Roles (cont'd)

- 2 local Public Health Units/MOHs
  - Issuing & Rescinding Drinking Water Advisories
  - Notification of residents (15 – 20K)
  - Liaison between MOE and Ontario Ministry of Health & Long-Term Care (OMOHLTC)

# Agencies Involved & Roles (cont'd)

- OMOHLTC
  - Monitoring
  - Technical advise to local health units/MOHs
  - Liasion between MOE and local health units/MOHs
- Michigan Authorities
  - Monitoring
  - Technical advice

# Beach Management Protocol

- MOH role on public beaches
  - Monitoring
  - Identifying factors (beach pollution survey)
  - Sampling (min 5 points)
  - Posting ( $>100$  E.coli/100 ml)
  - Shared by Ministries of Environment and Natural Resources

# Future Developments

- OMOHLTC – discussion with public health community and stakeholders into regulating the Beach Management Protocol into a Regulation/Act
- Joint provincial/federal – webbased beach monitoring system
- Local – Blue Flag Campaign

# Federal Role

## Related to water quality in recreational beaches...

- Regulatory – Fisheries Act Section 36(3)  
*Control of deleterious substances – Active compliance promotion and consultation with the Agricultural and Municipal Sectors in Ontario*
- Non-regulatory Programs and Activities
  - ✓ *Co-ordinate the establishment of national guidelines (often provincial standards are stricter) – CCME & Health Canada*
  - ✓ *Lakewide Management Plans and Remedial Action Plans*
  - ✓ *State of the Lakes Ecosystem Conference*
  - ✓ *Other programs (i.e. infrastructure grants)*

# The Need...

- A database of Recreational Beach water quality to support federal and provincial programs.
- System must be cost effective for data collection and maintenance.
- Data must be accessible and high quality (i.e. consistent across all beaches).

# The Solution...

## Development of a web-based collection system

- Provides a tool to Health Units they may not already have.
- Platform to encourage full adoption of provincial protocols and makes use of resources and technology of other levels of government (Improving data quality).
- System provides data to users in a electronic format (easily exportable) and linkages to a GIS.
- System development is underway in federal provincial partnership. Implementation is expected by summer 2004.

# The System...

## Seasonal Water Monitoring & Reporting System (SWMRS)

- Data are collected in accordance with the provincial beach protocols.
- Data are then inputted and managed on the web system (on a password basis) by the local Health Units.
- Direct link to the local MSC weather stations provide improved data (rainfall, current conditions).



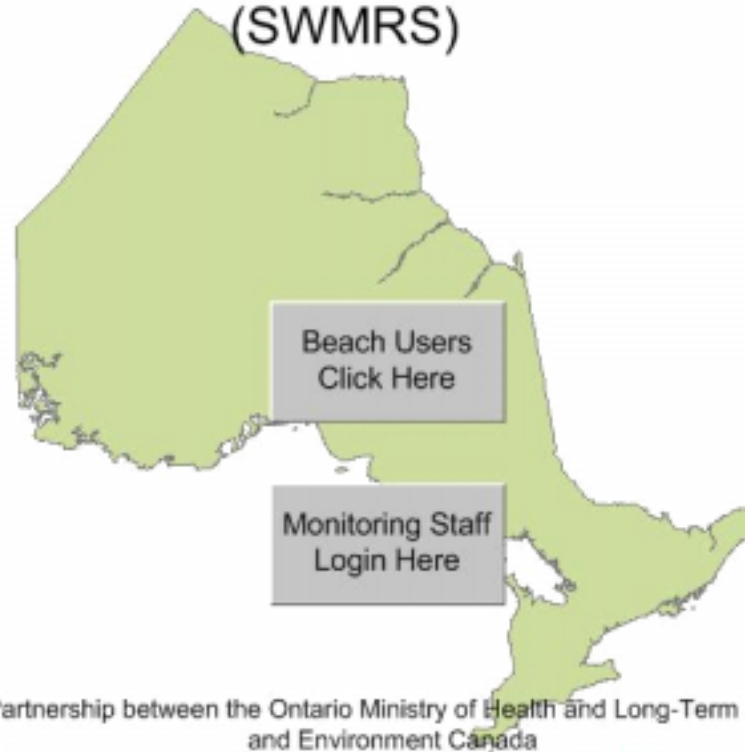
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## Ontario Beaches Water Quality Information Seasonal Water Monitoring and Reporting System (SWMRS)



Partnership between the Ontario Ministry of Health and Long-Term Care  
and Environment Canada



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## Monitoring for: SAUBLE BEACH

Regional Municipality of South Bruce Peninsula  
Telephone: 519-422-1262

Date: 2004-08-23

Staff Name:

SAMPLE No. 1	Reading
pH	5
Water Temp.	28
Rainfall During	No
Rainfall 48 hrs prior	Yes
Wind Direction	SSW
Bather Density	Low
Water Clarity	<100

Import Weather Data

Result Not Posted

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# The Next Steps...

- Continue to develop the Seasonal Water Monitoring & Reporting System (SWMRS).
- Beta test the system (City of Toronto has offered to support the system).
- Develop and supply training to Health Units.
- Implement the system.
- Innovate and expand the system as required.

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Questions?