

# Pits & Quarries in Ontario

Module 2

Ontario's *Clean Water Act, 2006*



# The *Clean Water Act*

- Six deaths are attributed to a municipal water supply contaminated with agricultural bacteria (*E. coli*)
- The provincial government establishes the Walkerton Inquiry
- The recommendations of Justice O'Connor result in the passage of the *Clean Water Act*

# The *Clean Water Act*

- Received Royal Assent on October 19, 2006.
- Provincial government commits \$120 million to initiate the program
- Regulations identifying technical rules follow

# Source Protection Planning

- Source Protection Planning is one part of the multi-barrier approach recommended by Justice O'Connor
  - Intended to protect drinking water at its source, prior to treatment
- A process to protect existing and future sources of drinking water, which is:
  - Science-based
  - Locally driven
  - Involves multiple stakeholders
  - Based on a collaborative approach

# Roles

- Conservation Authorities are providing the watershed science
- Municipalities will implement the Source Protection Plans by:
  - Incorporation into land use plans (required)
  - Inspection and enforcement

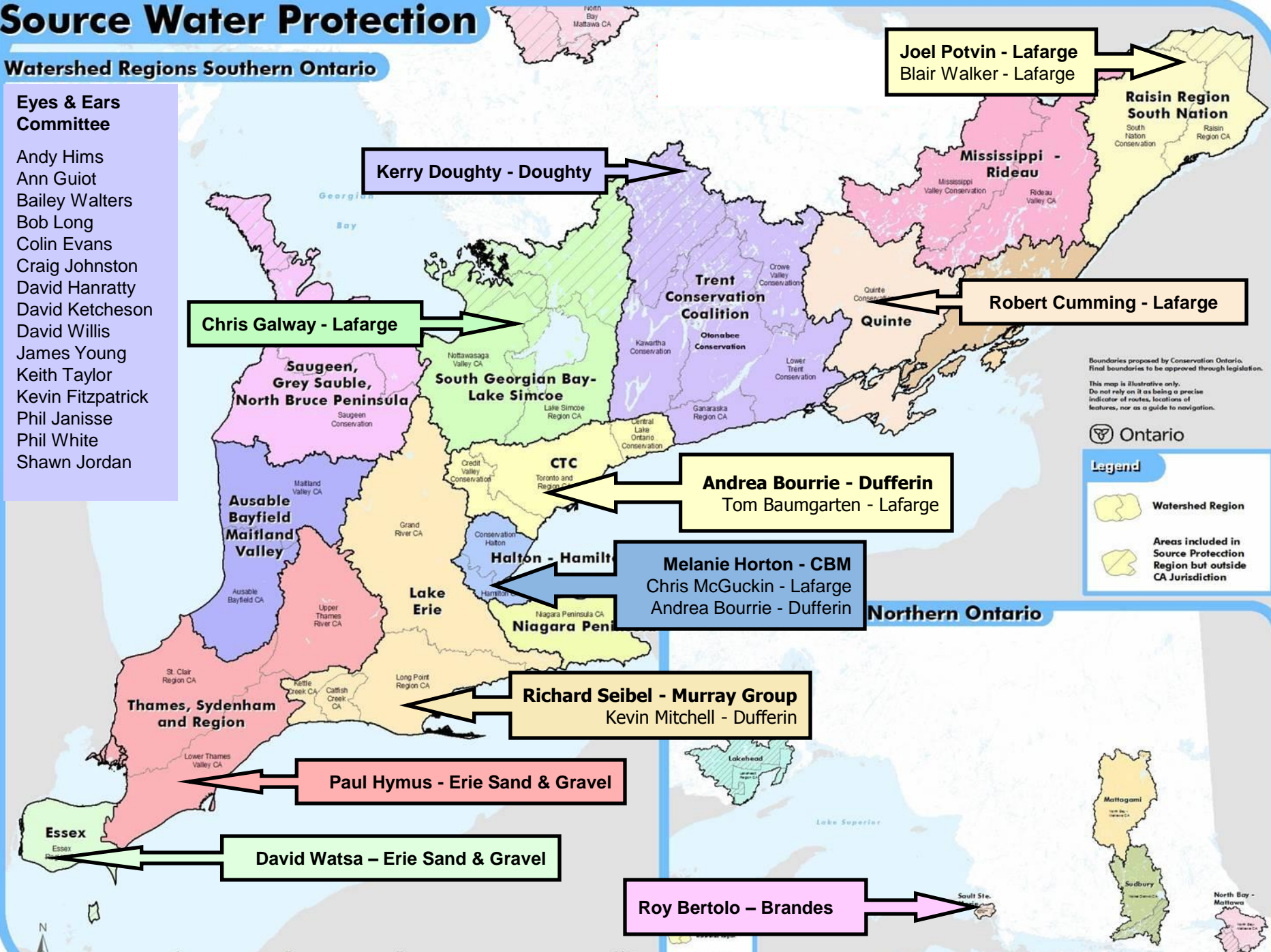


# Source Water Protection

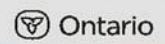
## Watershed Regions Southern Ontario

### Eyes & Ears Committee

- Andy Hims
- Ann Guiot
- Bailey Walters
- Bob Long
- Colin Evans
- Craig Johnston
- David Hanratty
- David Ketcheson
- David Willis
- James Young
- Keith Taylor
- Kevin Fitzpatrick
- Phil Janisse
- Phil White
- Shawn Jordan



Boundaries proposed by Conservation Ontario. Final boundaries to be approved through legislation. This map is illustrative only. Do not rely on it as being a precise indicator of routes, locations of features, nor as a guide to navigation.



### Legend

- Watershed Region
- Areas included in Source Protection Region but outside CA Jurisdiction



# Organization

## Source Protection Authority

- From Conservation Authority Board
- Selects Source Protection Committee Chair

## Source Protection Committee

- Municipal, business and public representatives
- Directs the studies and reports
- Appoints Working Groups

## Working Groups

- Various stakeholders
- Prepare the studies and reports

# The Great Lakes

- Source Protection Areas include drinking water systems with intakes located within the Great Lakes
- The Minister of the Environment has the authority to ensure that Source Protection Plans account for Great Lakes agreements



# Municipal Water Supplies

- Includes current and future municipal water supplies
- Must plan for 25 years of servicing
- Must consider risks to both quality and quantity of water supplies

# Planning Process

## Terms of Reference

- Identify drinking water systems
- Organize Committee structure
- Prepare study plan

## Assessment Report

- Watershed characterization
- Water budgets
- Risk assessment  
(Risk = Threats + Vulnerability)

## Source Protection Plan

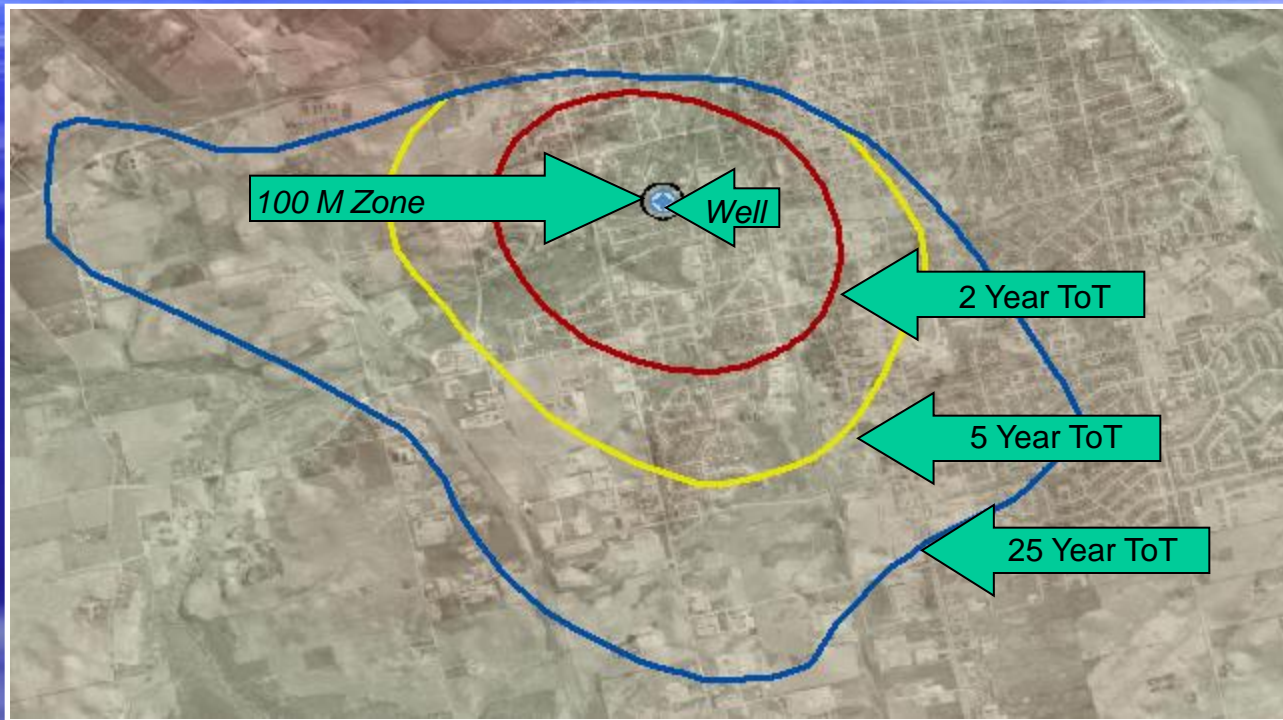
- Risk management plan
- Participants in implementation
- Monitoring plan

Each step must  
be approved by  
the  
Ministry of the  
Environment

# Groundwater Vulnerability

- Factors:
  - Highly vulnerable aquifers
  - Significant groundwater recharge areas
  - Wellhead protection areas

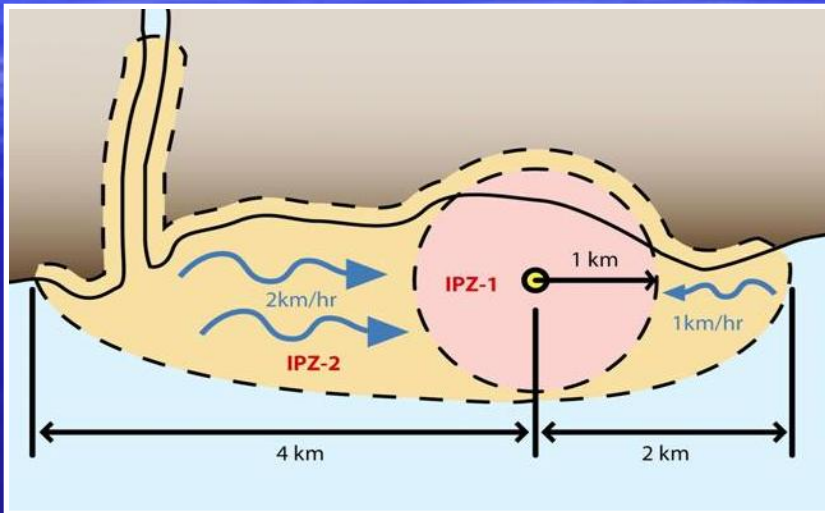
# Groundwater Vulnerability



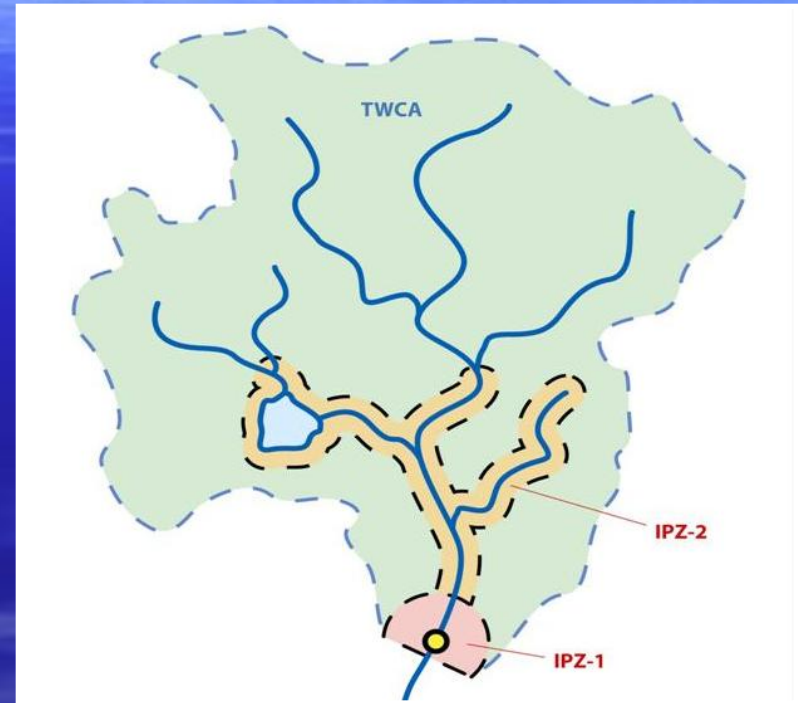
Wellhead Protection Areas  
Based on Time of Travel (ToT)



# Surface Water Vulnerability



Lake



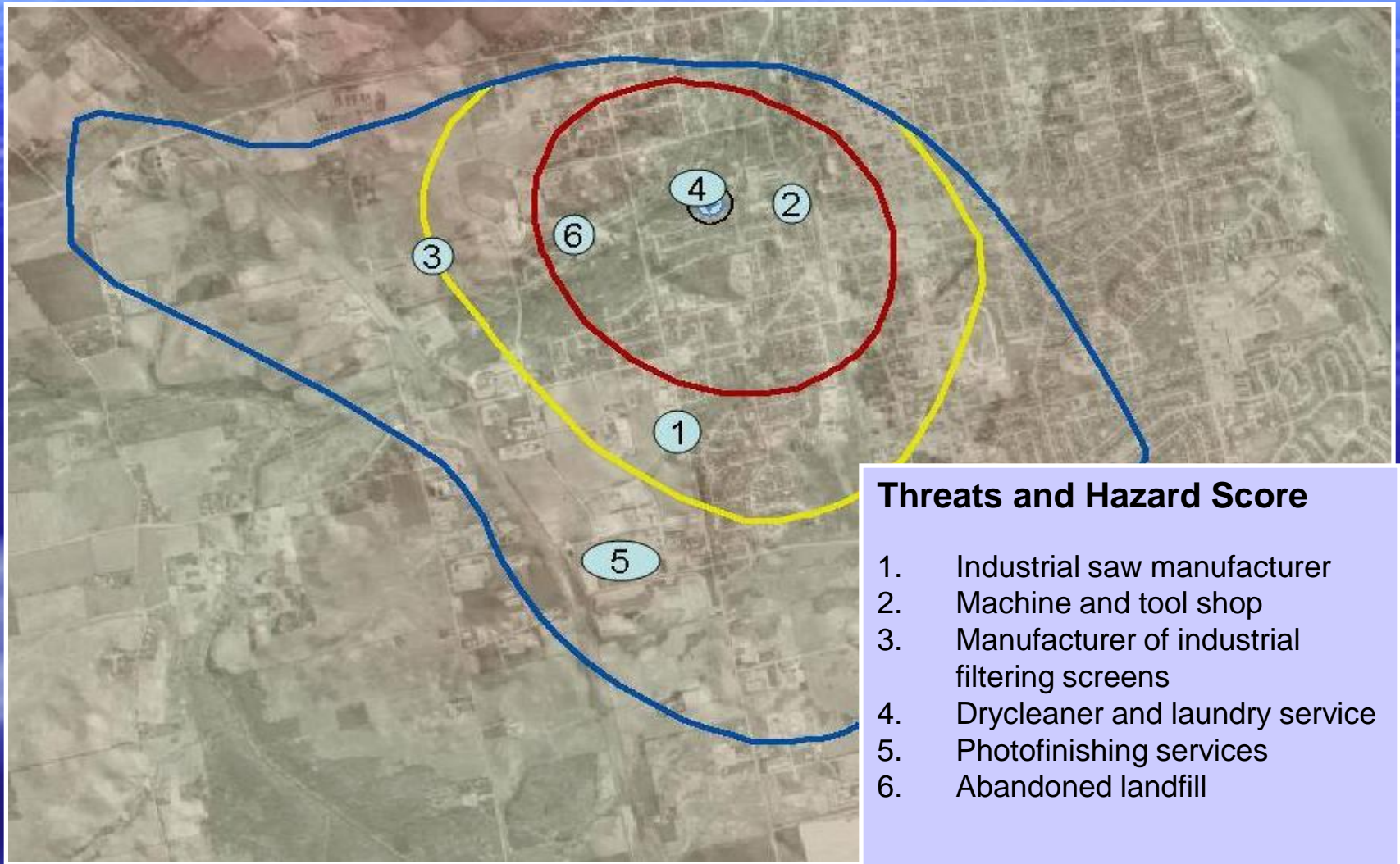
River

Intake Protection Zones (IPZ)

# Threats

- Activity or condition that adversely affects, or has the potential to adversely affect, the quality or quantity of any water that is, or may be used, as a source of drinking water
- The provincial government has developed a list of *threats of provincial concern*

# Threats Inventory



## Threats and Hazard Score

1. Industrial saw manufacturer
2. Machine and tool shop
3. Manufacturer of industrial filtering screens
4. Drycleaner and laundry service
5. Photofinishing services
6. Abandoned landfill



# Risk Assessment

- Tiered approach
  - Tier 1 – Watershed scale, desktop analysis
  - Tier 2 – Sub-watershed scale, site specific data
  - Tier 3 – Local scale, risk assessment
- Risk management plans/agreements can be developed



# Timing

- Full process expected to take 3-5 years
- Source Protection Plans are expected to be submitted between 2010 and 2012

# OSSGA's Position

- Support source water protection
- Participants in the process
- Aggregate extraction and rehabilitation is compatible with source water protection
- Support science-based approach
- Continuing concerns about local authorities planning and managing provincial resources

# Contact

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