

# Preserving Ontario's Headwaters

April 8, 2010  
Aurora Public Library

## Event Partners



With support from:

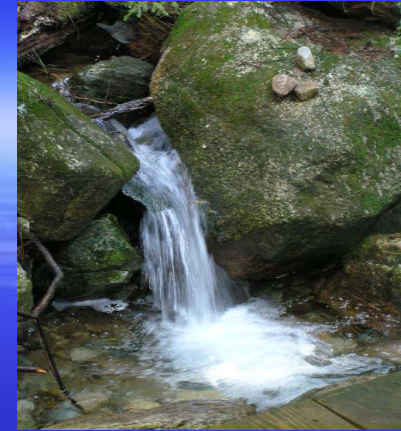


# Goals of this evening

- **Increased understanding of the importance of headwaters in Ontario**
- **Greater awareness of local headwater initiatives**
- **Strengthened local connections and potential cooperation in the future, and**
- **A participatory exercise to identify strengths, challenges and opportunities for future action**

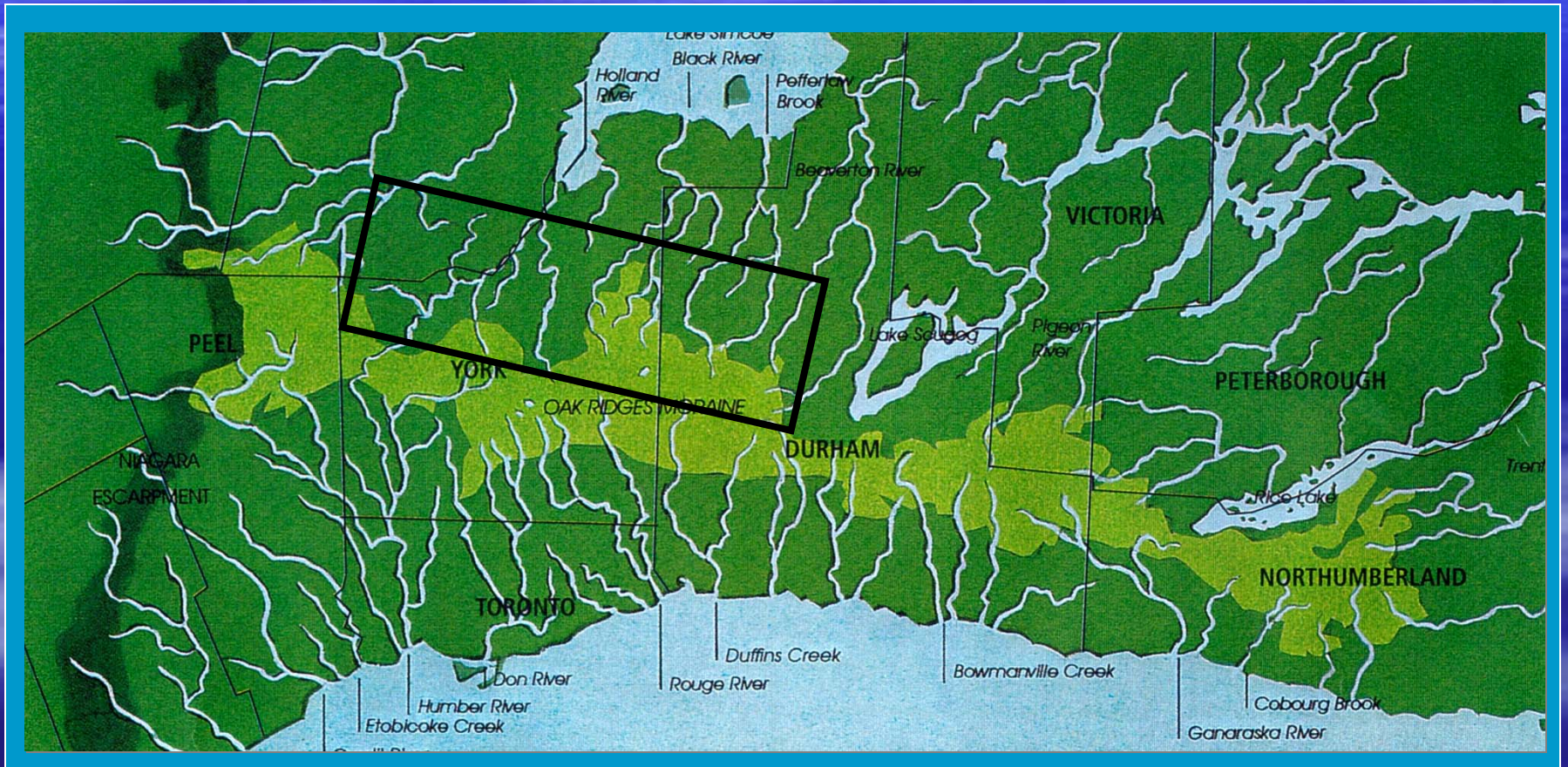


# Agenda: 6:30 - 9pm

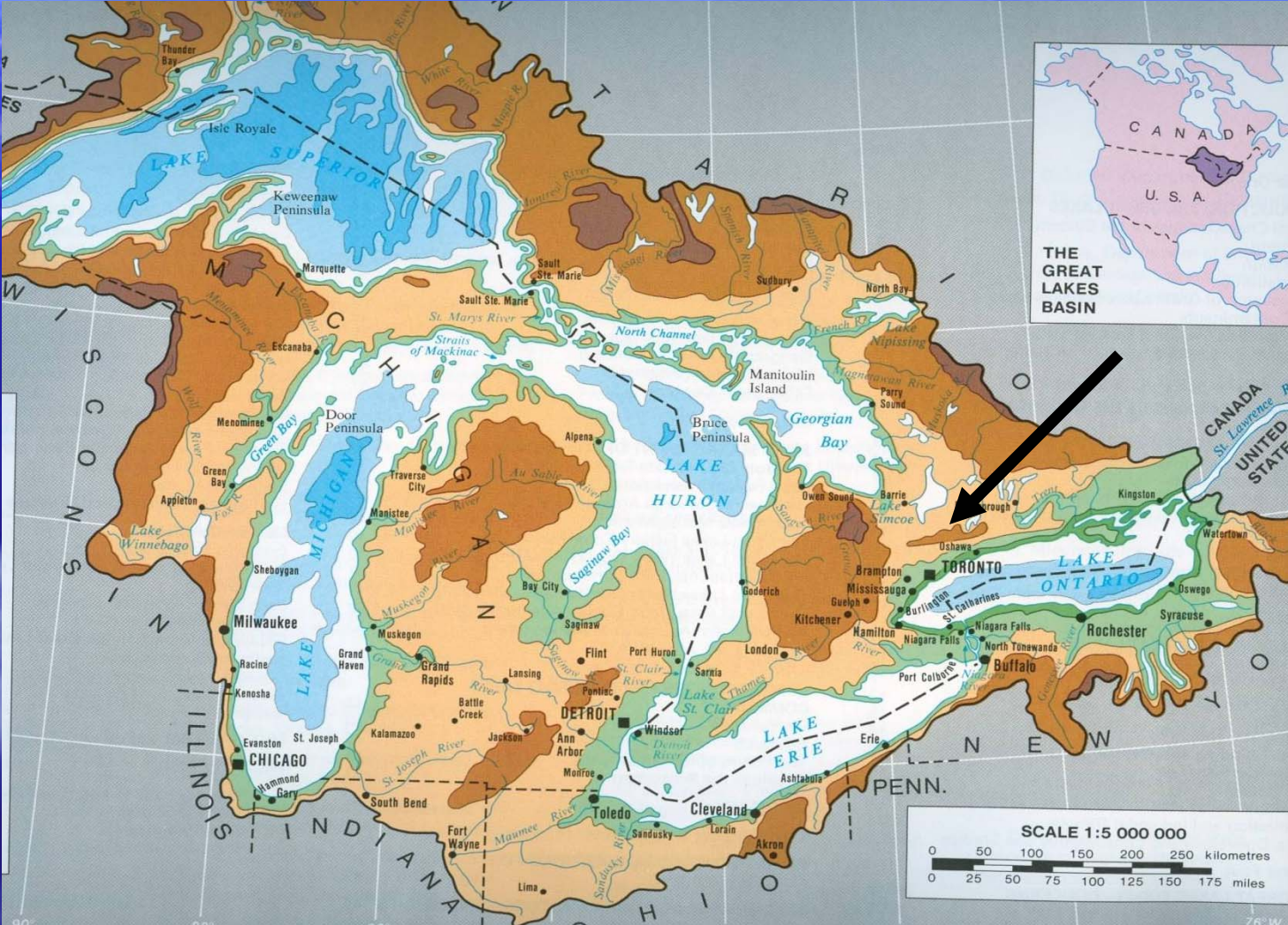


- **Welcome and Introductions**  
Debbe Crandall, STORM
- **Preserving Ontario's Headwaters**  
Andrew McCammon, OHI
- **Restoring Lake Simcoe through its Tributaries**  
Phillip Davies, Manager, Watershed Stewardship, Lake Simcoe Region CA
- **Q & A session / Participatory Workshop and Closing plenary**

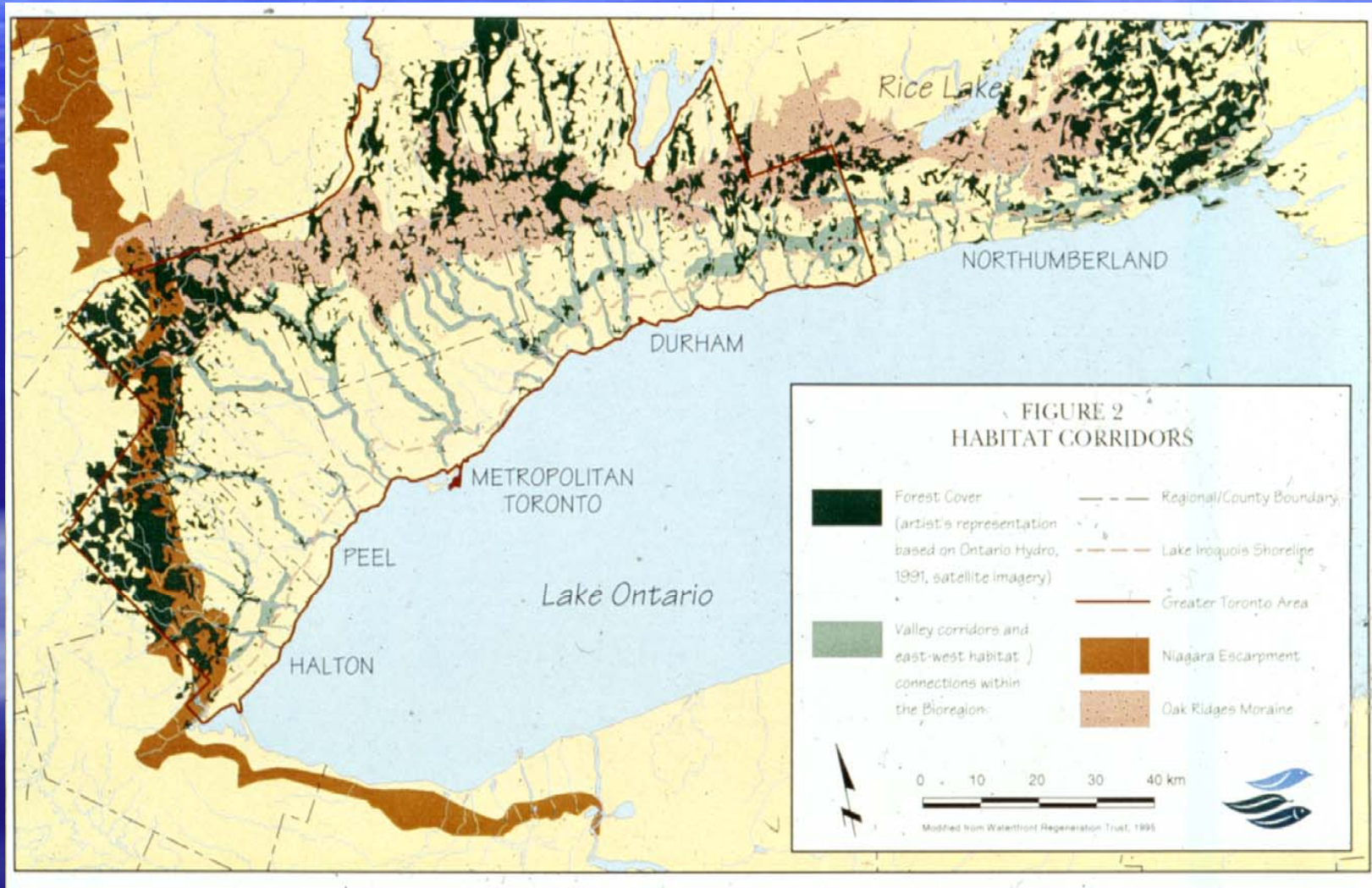
# The place where the rivers begin



# Scale: Great Lakes Basin



# Scale: Southern Ontario



# Scale: Watershed-level

that the water supply for more than 400,000 people in the GTA will be contaminated.

## Where the water goes

① Rain and melting snow seep through the highly permeable surface of the moraine.

② Water percolates through the moraine's layers of sand, gravel and clay and collects in a network of underground aquifers.

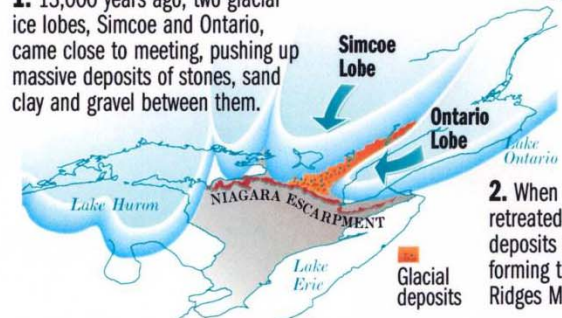
③ Private and municipal wells draw water from aquifers.

④ Water surfaces as springs, wetlands and streams which provide the headwaters for rivers flowing into Lake Ontario.

Water runoff from the Oak Ridges Moraine replenishes the GTA's underground aquifers and feeds more than 30 major waterways including the Rouge, Don, Humber and Credit rivers.

## How the moraine was formed

1. 13,000 years ago, two glacial ice lobes, Simcoe and Ontario, came close to meeting, pushing up massive deposits of stones, sand and clay between them.



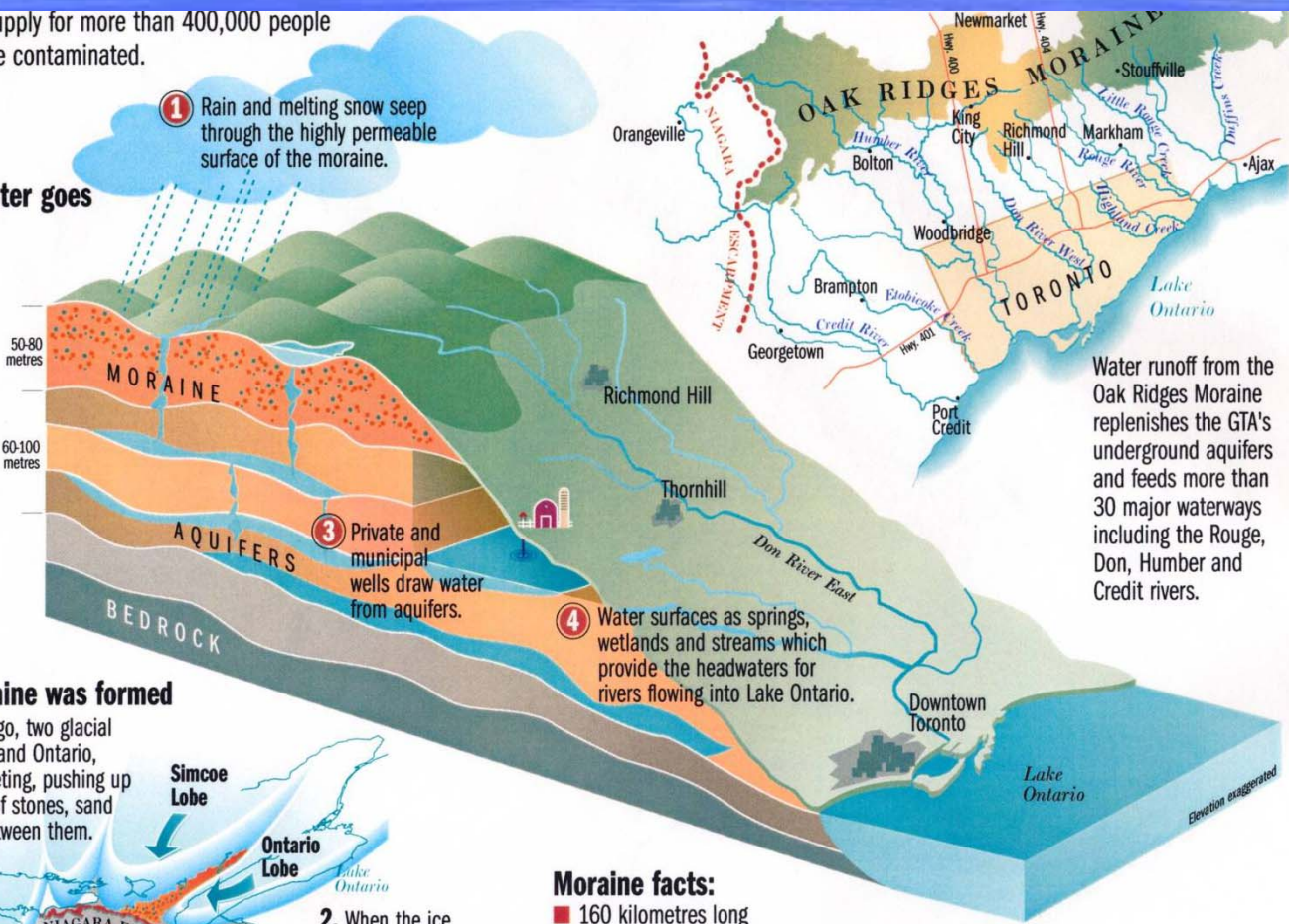
2. When the ice retreated, the glacial deposits remained, forming the Oak Ridges Moraine.

## Moraine facts:

- 160 kilometres long
- 3 to 24 kilometres wide
- 70 to 240 metres deep
- Highest point 300 metres above surrounding area

SOURCE: Special Places: The Changing Ecosystems of the Toronto Region

GRAPHIC BY CATHERINE FARLEY/TORONTO STAR



# STORM Coalition

- Entering third decade
- Community Activism: convene & facilitate grassroots movement
- Critical time now to focus on 'real' water protection
- Monitoring the Moraine: Working with partners to defend ORM at 2015 Review
- Biosphere Region - international recognition

# 2010 - 2015

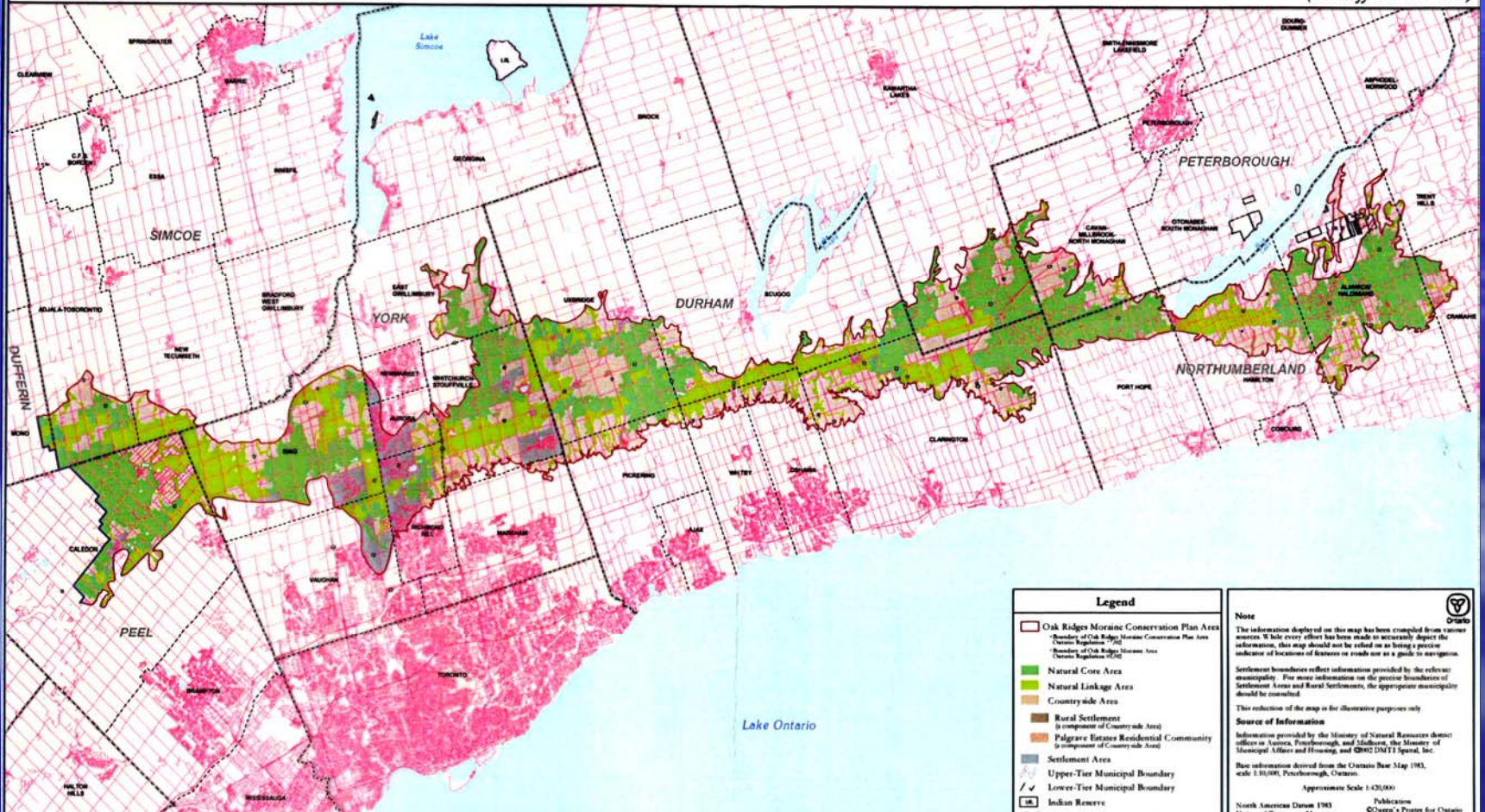
- Partner in ORMF's "Measuring Success"
- Water policy gap analysis (fingers crossed!)
- Tracking gaps in water protection
- Tracking compliance with policies
- Campaign to plug holes in water governance

# Governing Framework

- Oak Ridges Moraine Conservation Act ('01)
- Oak Ridges Moraine Conservation Plan ('02)
- Relates to all applications made under Planning Act and Condominium Act
- Implemented by municipalities through conformity amendments
- All decisions must conform to policies

# ORM Conservation Plan

## Oak Ridges Moraine Conservation Plan Land Use Designation Map (Not official version\*)



Legend	
	Oak Ridges Moraine Conservation Plan Area
	Natural Core Area
	Natural Linkage Area
	Countryside Area
	Rural Settlement (a component of Countryside Area)
	Palgrave Estates Residential Community (a component of Countryside Area)
	Settlement Area
	Upper-Tier Municipal Boundary
	Lower-Tier Municipal Boundary
	Indian Reserve

**Note**  
The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations of features or roads nor as a guide to navigation.

Settlement boundaries reflect information provided by the relevant municipality. The most information on the precise boundaries of Settlement Areas and Rural Settlements, the appropriate municipality should be consulted.

This collection of the map is for illustrative purposes only.

**Source of Information**  
Information provided by the Ministry of Natural Resources (except offices in Aurora, Peterborough, and Stouffville), the Ministry of Municipal Affairs and Housing, and QRCO DMTI Spatial, Inc.

Base information derived from the Ontario Base Map 1983, scale 1:50,000, Peterborough, Ontario.

Approximate Scale 1:420,000  
North American Datum 1983  
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Landscape Transportation Ministry

# Structure

- Four land use designations with permitted uses
- Natural heritage system - key features
- Hydrological system - key features
- Landform conservation system
- Specific land use policies
- Technical guidelines

# Water Protection Policies

- Watershed plans
- Water budgets and conservation plans
- Hydrologically sensitive features
- Subwatersheds
- Wellhead protection areas
- Areas of high aquifer vulnerability
- Applies to ORM Plan Area

# Watershed Plans

- Primary mechanism for protection
- Watershed plan policies incorporated into official plans
- Enforced through prohibition of major development on Oak Ridges Moraine
- Technical and data support from Conservation Authorities Moraine Coalition groundwater modeling and database

# Hydrological Features

- Components of a larger system - ecological and hydrological
- Ecosystem integrity is end-point
- Development prohibited
- Infrastructure projects allowed - roads, pipes
- Function is a key element

# On the Ground Realities

- Transition applications exempted
- Non-land uses lie outside purview of ORMCP I.e., water-taking, infrastructure
- Patchy coverage of completed watershed planning
- Small features not protected
- Moraine aquifers extend beyond regulated area



Colgan

Millbrook

Westhill

# Case Study: Westhill

- Aurora, York Region (LSRCA)
- Transition application - big houses, golf course
- Appealed to OMB
- Town of Aurora efforts for a joint board hearing (planning & environment)
- No ORM mechanisms to intervene

# Real Protection for Headwaters

- Integrated planning & non-planning approaches to water protection
- Three-dimensional perspective of water (connections between surface and below surface)
- Ecological controls on water-taking & not only planning controls

# Working Together

- Understand the significance of ORM to entire bioregion - north and south
- Help us help communities fight for water security
- Sign onto Westhill statement
- Help us bring message to downstream folk
- Be a partner in 2015 Plan Review

Questions?

[www.stormcoalition.org](http://www.stormcoalition.org)

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