



# Lake Ontario Lakewide Management Plan

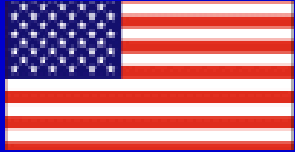
## Developing Lake Ontario Coastal Wetland Indicators

Mario Del Vicario, USEPA

Lake Ontario LaMP Coastal Wetlands Workshop  
June 24-25, 2008



# Lake Ontario Lakewide Management Plan



USEPA Region 2  
NYS Dept. of Environmental Conservation  
U.S. Fish & Wildlife Service



Environment Canada  
Ontario Ministry of the Environment  
Ontario Ministry of Natural Resources  
Dept. of Fisheries & Oceans Canada

- Restore physical, chemical & biological integrity of the Lake Ontario Ecosystem.
- Address Lakewide Problems requiring coordinated binational actions.

## What does the LaMP Do?

- Develops strategies to address Lakewide problems
- Coordinates binational monitoring
- Identifies critical pollutant sources
- Tracks emerging issues
- Promotes biodiversity conservation & restoration
- Reports progress to public



# Lake Ontario LaMP

## Beneficial Use Impairments



- Restrictions on fish and wildlife consumption
- Bird or animal deformities or reproductive problems
- Degradation of wildlife populations
- Loss of fish and wildlife habitat
- Degradation of Fish Populations
- Degradation of Benthos
- Degradation of Nearshore Phytoplankton Populations

# Remedial Action Plans (RAPs) for Areas of Concern

## Addressing Localized Problems

- 5 U.S. Lake Ontario AOCs
- 2 Binational AOCs
- RAPs address causes of AOC impairments.
- Goal to restore beneficial uses and delist AOCs
- EPA's Strategic Plan AOC Delisting Target:

*“By 2010, restore and delist a cumulative total of at least 10 Areas of Concern within the Great Lakes basin”*

# Measuring Progress: Lake Ontario Ecosystem Indicators

- Critical Pollutant Indicators

Concentrations in Water, Fish & Gull Eggs

- Lower Food Web Indicators

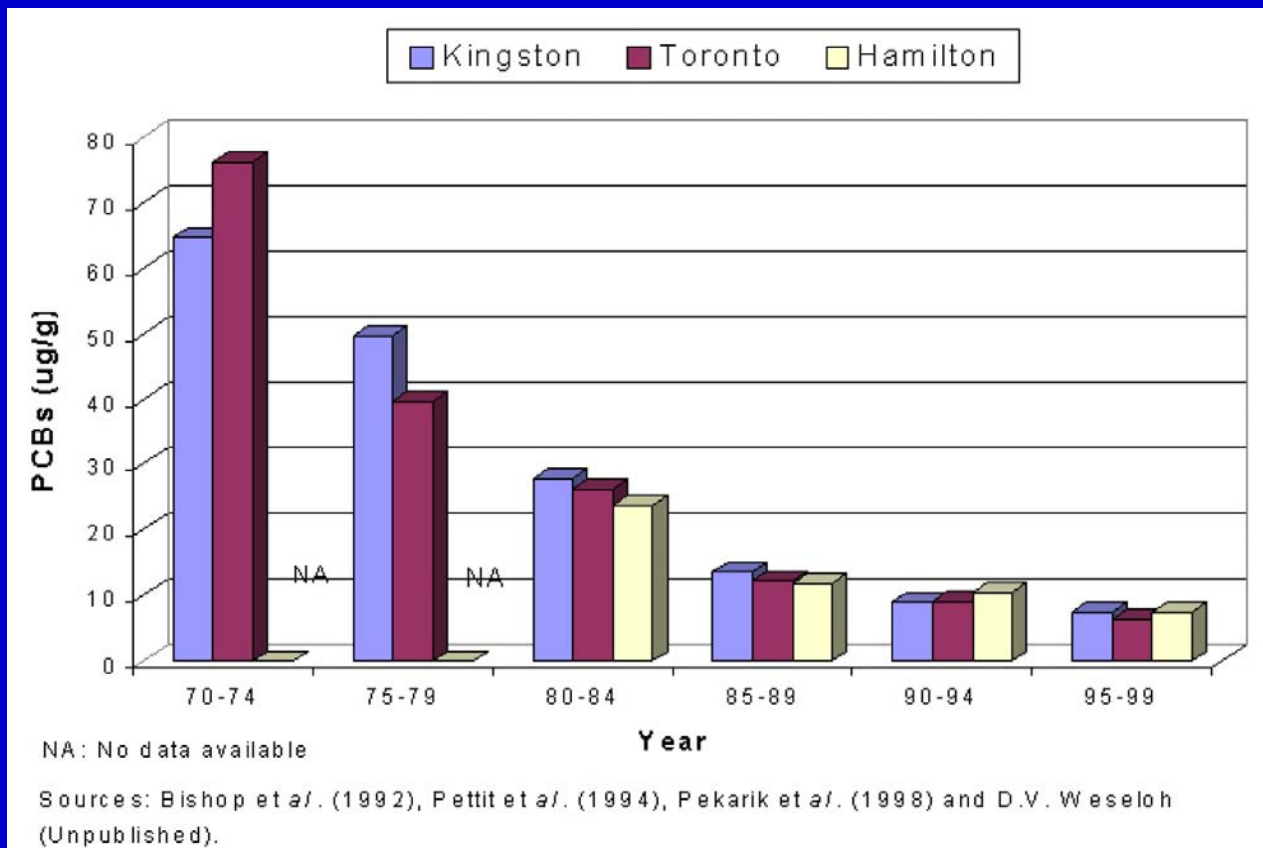
Nutrients, zooplankton, prey fish

- Upper Food Web Indicators

Populations: Bald Eagle, Lake trout,  
Herring Gulls, Mink & Otter



# Lake Ontario Herring Gull Egg PCB Trends 1970–1999





# Conserving Great Lakes Bald Eagle Habitat

## St. Lawrence River Bald Eagle Working Group

### Restoration Goals

- 10 shoreline nests by 2016
- Protect / Conserve 10 potential nesting sites by 2016.
- 80% of all nests produce 1 or more eaglets per year.





# Developing a LaMP-based Biodiversity Strategy for Lake Ontario

Lake Ontario Coastal Wetlands Targets

Strategy Leads:

The Nature Conservancy – David Klein

Nature Conservancy Canada – Daniel Kraus



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Peter Zuzek, Baird Assoc



# Developing Indicators for Lake Ontario

## Building on Existing Initiatives

- Great Lakes Coastal Wetlands Consortium
- Lake Ontario LaMP Binational Biodiversity Strategy
- IJC Lake Level Study Monitoring & Adaptive Management
- Bird Studies Canada Marsh Monitoring
- Durham Region Monitoring Lake Ontario Coastal Wetlands
- NE Monitoring & Performance Reporting Framework





# Lake Ontario LaMP

## Next Steps

- Identify existing wetland monitoring that can support indicators
- Review indicator work to date
- Select LaMP indicators, targets and objectives
- Identify Lake Ontario South Shore implementation area
- Consult public on proposed indicators
- Formerly adopt LaMP coastal wetland indicators
- Report biennially on indicators