

Canada – Ontario Agreement (COA)

- The Agreement builds on the long-standing commitment of the Parties to restore, protect and conserve the Basin Ecosystem.
- Parties commit to continue to work in a cooperative, coordinated and integrated fashion, with each other and with others in the Basin
- Through this Agreement, the Parties establish:
 - Common priorities, goals, and results for the enhancement and conservation of the Basin Ecosystem;
 - Management strategies required to achieve these goals and results;
 - Roles and responsibilities of each Party in relation to these strategies; and,
 - A commitment to report regularly and publicly on the state of the Basin Ecosystem.
- **Implementation contributes to meeting Canada's obligations under the Canada-United States Great Lakes Water Quality Agreement (GLWQA).**

COA

This agreement effective the 22ND day of March 2002

BETWEEN

Her Majesty The Queen in Right of Canada (Canada) represented by:

- **The Honourable David Anderson, Minister of the Environment**
- **The Honourable Lyle Vaclier, Minister of Agriculture and Food**
- **The Honourable Sheila Copps, Minister of Canadian Heritage**
- **The Honourable Robert Chisholm, Minister of Fisheries and Oceans**
- **The Honourable Anne McLellan, Minister of Health**
- **The Honourable Herb Dhaliwal, Minister of Natural Resources**
- **The Honourable Don Boudria, Minister of Public Works and Government Services**
- **The Honourable David Collenette, Minister of Transport**
- **AND**

Her Majesty The Queen in Right of Ontario (Ontario) represented by

- **The Honourable Elizabeth Wetmer, Minister of the Environment**
- **The Honourable John C. Snowden, Minister of Natural Resources**
- **The Honourable Brian Coburn, Minister of Agriculture, Food and Rural Affairs**

COA Annexes

- AOCs
- Harmful Pollutants
- Lakewide Management
- Monitoring and Information Management



COA Nutrients Task Force

Assignment

- Charge: Develop discussion document to inform the next COA and GLWQA
- Create a multi-agency task group
- Leads: EC and MOE

Terms of reference

- Focus
 - Nutrients Science and Management
- Geographic Scope
 - Offshore, nearshore, embayments & tributaries
- Develop consensus on GL nutrients in relation to:
 - impacts
 - causes
 - science needs
 - Short-term (5 yr) actions
 - flag long-term (5+ yr) actions



Drafting team

- EC
- MOE
- OMAFRA
- MNR
- DFO

Key Findings - Impacts

- **Phosphorus remains the focus for management**
- **Impacts extensive in Huron, Erie and Ontario**
- **Different concerns for each lake and regions within**
- **Nearshore – eutrophication**
- **Offshore – desertification**
- **Trends appears to be worsening**
- **Science and management increasingly complex**
- **potentially severe social, economic and ecological costs that affect the public, industry and the environment**

Key Findings - Contributing Factors

- Causal linkages P, HABs, Cladophora, O₂ depletion incl nearshore shunt and desertification
- P budgets
- Phosphorus forms
- Nearshore - offshore dynamics
- Watershed scale monitoring & modelling
- Agricultural Nutrient Transport & BMPs
- Effectiveness of BMP's
- Climate Change and Nutrients

Key findings - Management

- Nonpoint sources are increasingly important
- Point sources still a concern
- Regional or watershed/shoreline strategies based on unique mix of sources
- Improved and shared accountability
 - Objectives and Performance measures
 - Stakeholder engagement and communication
- Resources management in dynamic environment
- Linking policy, regulation and science in a timely manner
- Linking BMP's to environmental outcomes

Short-terms actions – Science

- Continued collaborative research on lake priorities
- Enhanced monitoring
 - mussel – algal relationships
 - relative inputs of TP and Bio available
 - areas of high loadings
 - P budgets
- Modeling strategies
- Common P source methodologies (GIS, landuse inventories)
- Cladophora growth potential
- Lake - watershed coupling models

Short-term actions – Management

- Support development of nutrient management strategies and plans in priority areas
 - Integrated watershed and coastal management plans
- Target monitoring and information collection
- Consistent process and methodologies for developing information, e.g., P budgets
- Refine EFP and rural water quality programs to target nutrients
- Identify additional cost share opportunities to implement nutrient BMPs
- Actions to mitigate future climate change

CCGS Limnos

- 130 ft
- Draft <10 ft
- Crew of up to 40; 20 staff and 20 scientific
- Highly maneuverable
- Wheel house forward
- Recent refit with new propulsion and labs



Limnos Schedule

- Linked to intensive lake studies (CSMI)
- Seasonal presence on the lower lakes annually
- Lake Erie (2010, 2011)
- Lake Superior (2011)



Supernumerary Requirements

- Satisfactory level of training requiring minimal level of supervision
- Medically fit



Recent Academic Collaborators

- U of Tennessee
- U of Waterloo
- Bowling Green State
- Penn State
- Clarkson U
- U of Windsor
- U of Toronto

