

LAKE ST. CLAIR TECHNICAL REPORT CONSULTATION QUESTIONNAIRE

Preface

The information that accompanies this questionnaire is a summary of the Lake St. Clair Canadian Watershed Draft Technical Report. The Report was prepared by the Canadian Watershed Coordination Council (CWCC) to evaluate the current status of the Canadian Lake St. Clair ecosystem. The Canadian Watershed Coordination Council is led by Environment Canada and includes representatives from the federal and provincial governments, Walpole Island First Nation (WIFN), and local Conservation Authorities.

The Draft Technical Report describes the current state of Lake St. Clair and identifies a number of management (environmental) issues specific to the Canadian portion of the Lake St. Clair watershed. A list of proposed recommendations to address each of these issues has been drafted. When finalized, these recommendations will form the basis of a Watershed Management Plan. By implementing the recommendations, it is expected that management issues will be resolved over time.

The Canadian Watershed Coordination Council wants to give you an opportunity to participate in the development of the Lake St. Clair Canadian Watershed Management Plan by asking questions, raising concerns, and providing input to the selection of management recommendations.

A draft version of the complete Technical Report is available by contacting Dave White or Naomi Williams at the WIFN Heritage Centre or by visiting <http://www.bkejwanong.com> or contacting Jennifer Vincent at jenn.vincent@ec.gc.ca

Return your written comments by October 31, 2005 to:

Walpole Island First Nation Heritage Centre
R.R. #3
Wallaceburg, Ontario
N8A 4K9

The Coordination Council will consider input received during this consultation as they select final management recommendations and develop the Lake St. Clair Canadian Watershed Management Plan. The final Lake St. Clair Canadian Watershed Management Plan document will contain the management recommendations and a summary of this consultation. All responses will remain anonymous. The Plan is anticipated to be published in 2006 and copies will be made available to the public.

Under the Freedom of Information and Privacy Act (1987), personal information will remain confidential and will not be distributed unless your prior consent is obtained.

Demographic Information

The Lake St. Clair Canadian Watershed Coordination Council would like to have the following demographic information to ensure that this consultation meets the needs of all sectors and is representative of the entire watershed. This information will be used for statistical purposes only.

Please indicate your postal code or zip code: _____

Interest in Lake St. Clair (check all that apply):

- Local resident
- First Nations resident
- Federal government (please specify) _____
- Provincial government (please specify) _____
- Municipal government (please specify) _____
- Conservation Authority (please specify) _____
- Local business/industry (please specify) _____
- Community organization (please specify) _____
- Other (please specify) _____

If you would like to receive more information about the Lake St. Clair Canadian Watershed Management Plan in future, please join our long-term mailing list by filling out the form at the end of this questionnaire.

How concerned are you about the state of Lake St. Clair with respect to the following:
 (On a scale of 1 to 5, please circle your answer)

	Not at All Concerned 1	2	Moderately Concerned 3	4	Very Concerned 5
Overall state of the lake	1	2	3	4	5
Fishing	1	2	3	4	5
Recreational boating	1	2	3	4	5
Swimming and beaches	1	2	3	4	5
Drinking water quality	1	2	3	4	5
Fish and Wildlife habitat	1	2	3	4	5
Pollution	1	2	3	4	5
Non-Point Source Pollution	1	2	3	4	5
Industrial Discharges	1	2	3	4	5
Municipal Discharges	1	2	3	4	5
Sediment Contamination	1	2	3	4	5
Shipping/Freighter Traffic	1	2	3	4	5
Waterfowl Hunting	1	2	3	4	5
Bio-accumulation of Toxins	1	2	3	4	5
Water levels	1	2	3	4	5
Invasive Species	1	2	3	4	5
Species at Risk	1	2	3	4	5

Has the information presented changed your perception of the lake with respect to any of these issues? If so, on which topics and how has your perception changed? (Please explain in space provided)

Section 2 – Technical Questions

2. A total of seven topics have been identified specific to the Canadian Lake St. Clair watershed.

These are:

- Land use
- Commercial navigation and recreational boating
- Sources and loads
- Impacts to human health
- Alteration of habitat and biodiversity
- Fishing and hunting
- Science, research and monitoring

Do you agree with the topics as presented? (Please circle your answer)

Yes

No (Please explain in space provided)

Do you know of any other topics that have been left out? (Please circle your answer)

Yes (Please explain in space provided)

No

Management Issues

Twenty-three management issues are identified for the Lake St. Clair Canadian watershed.

Land Use Management Issues

- Detrimental (harmful) impacts to water quality and quantity resulting from land use (e.g. reduced natural cover, increased imperviousness and water resistant surfaces) have increased sediment, nutrient, bacterial and chemical inputs by increasing run-off and decreasing groundwater recharge.
- Challenges exist for municipal and local governments to provide a balance among a healthy environment, a healthy lifestyle, and a healthy economy.
- Impacts of climate change on land use, human health and the ecosystem (entire natural environment) require ongoing research and monitoring, and adaptive and preventive management strategies.

Commercial Navigation and Recreational Boating Management Issues

- Shoreline hardening (installation of man-made structures to prevent shoreline erosion) to accommodate commercial navigation and marina development, as well as to protect exposed shorelines against wave-erosion, has resulted in significant reductions in coastal habitat and altered current and sediment deposition patterns.
- The increased seasonal boating pressures and the popularity of jet-propelled personal watercraft that can operate in very shallow waters have the potential to increase wave action, uproot aquatic vegetation, and re-suspend bottom sediments, leading to habitat degradation at the shoreline and in nearshore areas.
- Knowledge of the effects of BTEX (benzene, toluene, ethyl benzene, xylenes) emissions from two-stroke marine engines on the environment is limited.
- Efforts to restrict or prevent the arrival and spread of invasive species into the Great Lakes via hull fouling or the de-ballasting of water and sediment used for weight on ships have been limited.
- The shipping traffic associated with the presence of the large petrochemical industry near Sarnia, Ontario upstream of the lake represents an ongoing risk to the ecology of the lake.
- The potential expansion of the seaway system may alter existing habitat by increasing habitat losses, turbulence and wave disturbance, altering flow patterns, and disrupting the distribution of wildlife and plants within the lake, nearshore, or adjacent areas.

Sources and Loads Management Issues

- Further reductions in pollutants from all point sources e.g. discharge pipes are needed.
- Non-point sources of pollution e.g. run-off from land are having a detrimental impact on water and habitat quality (e.g. beach closures, sedimentation).
- Out of basin sources of pollution (e.g. air pollution, emissions) cannot be addressed through a watershed management plan for Lake St. Clair, but rather should be addressed through national and international plans.
- The risks of chemical and fuel spills threaten fish, wildlife and natural habitat, particularly at certain times of the year (e.g. breeding, migration).

Impacts to Human Health Management Issues

- Elevated concentrations of mercury and PCBs (Polychlorinated Biphenyls) in fish continue to cause advisories on the consumption of fish caught in the Lake St. Clair watershed.
- Point and non-point sources of pollution are having a detrimental impact on water quality (e.g. beach closures, source water).
- The quality and quantity of treated water is satisfactory, however there are concerns with existing and emerging pollutants (e.g. pharmaceuticals), and ensuring an adequate supply to consumers.

Alterations to Habitat and Biodiversity Management Issues

- Disturbances and interruptions in the use of habitat by terrestrial (land) and aquatic biota (plant and animal life) during sensitive periods of their life history (e.g. breeding, migration) caused by on-water activities (e.g. recreational boating).
- Impacts of land use activities on the hydrologic (water) and/or sediment cycles are reflected in impaired quality or reduced quantity of aquatic habitats.
- Habitat loss and fragmentation (alteration) associated with existing and future land uses has the potential to adversely affect fish and wildlife populations and species diversity.
- Invasive species have, and are expected to continue to, affect the ecology of Lake St. Clair and the diversity of species that live in and around it.
- Lake use activities are impacting terrestrial and aquatic biota, especially species at risk (e.g. species considered to be endangered, threatened, or of special concern).

Fishing and Hunting Management Issues

- Declining waterfowl use of some traditional feeding and resting areas has been linked to increases in fall recreational boating and fishing activities.
- Current levels of fishing and hunting are not detrimentally impacting on the fish and wildlife communities that reside in Lake St. Clair; however, spring and early summer fishing activity may harm populations of Smallmouth bass if reproduction is interrupted.

Science Research and Monitoring Management Issues:

- A program or policy approach to watershed research, monitoring, and reporting, is not as effective as a coordinated, ecosystem approach.

3. A management issue is defined as “*a problem that could be alleviated (improved) by cooperatively and effectively managing resources within the Lake St. Clair watershed*”. Do you think that the definition meets the needs for this context? If not, how do you think it should be revised? (Please circle your answer)

Yes	No (Please explain in space provided)
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Do you agree with the management issues as described? (Please circle your answer)

Yes	No (Please explain in space provided)
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Do you know of any other management issues that have been left out? (Please explain in the space provided)

Proposed Recommendations

4. Management recommendations will be developed to address these issues. These recommendations will be used to justify and implement projects.

Do you agree with the recommendations proposed?
 (On a scale of 1 to 5, please circle your answer)

COMMUNICATIONS

	Strongly disagree 1	2	3	4	Strongly agree. 5
1. Support public involvement, outreach and education initiatives that promote key activities such as agricultural best management practices, environmentally friendly boating, habitat restoration and/or protection projects	1	2	3	4	5
2. Communicate and educate stakeholders about the effects of older two-stroke engines on the environment, non-point sources of pollution, drinking water issues (e.g. “Friends of..”, stakeholder forums, school programs)	1	2	3	4	5
3. Regularly report to stakeholders the progress being made implementing the Lake St. Clair Canadian Watershed Management Plan	1	2	3	4	5

CONTINUED...

SCIENTIFIC RESEARCH, MONITORING AND REPORTING

(On a scale of 1 to 5, please circle your answer)

	Strongly disagree. 1	2	I am indifferent. 3	4	Strongly agree. 5
Conduct scientific research, monitoring and reporting to:					
1. Determine the extent of the impacts of increased seasonal boating pressures and jet-propelled personal watercraft in order to develop appropriate management actions	1	2	3	4	5
2. Track the source, transport and fate of contaminants at a Lake and tributary watershed scale	1	2	3	4	5
3. Determine the effects of contaminants on the environment in order to develop appropriate management actions	1	2	3	4	5
4. Continue to investigate the sources and effects of non-point source pollution where they are poorly understood, and monitor the impacts of remediation projects	1	2	3	4	5
5. Investigate causes and track the extent of habitat alterations and species composition at a Lake and tributary watershed scale	1	2	3	4	5
6. Research treatment options and remediation techniques for emerging pollutants in treated water	1	2	3	4	5

CONTINUED...

CONTINUED RESOURCE ALLOCATIONS

(On a scale of 1 to 5, please circle your answer)

	Strongly disagree 1	2	3	4	Strongly agree 5
Support continued resource allocations that:					
1. Promote agricultural best management practices throughout the watershed to enhance water quality, water quantity, habitat and agricultural sustainability	1	2	3	4	5
2. Effectively engage lower and upper tier municipalities to build on and encourage continuous improvements in land use planning and municipal operations	1	2	3	4	5
3. Continue to provide sustainable fisheries, wildlife, and waterfowl resources within the Lake	1	2	3	4	5
4. Reduce inputs of out of basin sources and point sources of pollutants	1	2	3	4	5
5. Reduce and remediate sources of mercury and PCBs	1	2	3	4	5
6. Maintain high standards of treated water quality for public consumption, updating as required	1	2	3	4	5
7. Encourage water conservation measures	1	2	3	4	5
8. Develop contingency plans that promote preparedness for extreme situations such as floods and extended periods of extreme temperature (addressing Climate Change)	1	2	3	4	5
9. Reduce atmospheric emissions, reduce reliance on non-renewable energy sources and adopt energy conservation measures	1	2	3	4	5
10. Encourage the timely completion and implementation of Recovery Strategies for Lake St. Clair's tributary watersheds to recover the various populations of Species at Risk	1	2	3	4	5

CONTINUED RESOURCE ALLOCATIONS

(On a scale of 1 to 5, please circle your answer)

	Strongly disagree 1	2	3	4	Strongly agree 5
Support continued resource allocations that:					
11. Develop detailed implementation oriented plans addressing natural function e.g. natural heritage strategies, fish habitat management plans, shoreline management plans	1	2	3	4	5
12. Stop the spread of established invasive species and prevent future introductions of other invasive species	1	2	3	4	5

OTHER RESOURCE ALLOCATIONS:

(On a scale of 1 to 5, please circle your answer)

	Strongly disagree 1	2	3	4	Strongly agree 5
Support other resource allocations that:					
1. Develop remediation programs that address specific issues from a watershed wide perspective, and involve collaborative action by local, regional, provincial, and federal organizations	1	2	3	4	5
2. Assist landowners to be in compliance with Acts e.g. Ontario Nutrient Management Act	1	2	3	4	5

RECOMMENDATIONS CONTINUE ON FOLLOWING PAGE

GOVERNANCE

(On a scale of 1 to 5, please circle your answer)

	Strongly disagree 1	2	3	4	Strongly agree 5
1. Consistent programming and sustainable funding from government is needed to support best management programs over the long-term (e.g. 10-25 years)	1	2	3	4	5
2. Encourage greater integration amongst the various public sector participants whose decisions affect Lake St. Clair	1	2	3	4	5
3. Continue to regularly review and update Emergency Response Plans in accordance with regulations	1	2	3	4	5
4. Protect raw water sources from point and non-point sources of pollution through voluntary compliance and enforcement of regulations	1	2	3	4	5
5. Need to develop a coordinated comprehensive program for scientific research, monitoring, and reporting	1	2	3	4	5
6. Support regulations that stop the spread of established invasive species and that prevent future arrivals of invasive species	1	2	3	4	5
7. Continue to work with U.S. partners to ensure a coordinated binational focus on Lake St. Clair watershed management issues	1	2	3	4	5
8. Support methods and enforced regulations that prevent the inputs of out of basin sources of pollution	1	2	3	4	5
9. Support a balanced approach between voluntary compliance and enforcement of regulations	1	2	3	4	5

