Committee of Advisors
to the
Great Lakes Fishery Commission

RESOLUTION TO ADOPT THE COUNCIL OF THE GREAT LAKES FISHERY AGENCIES' "DECISION SUPPORT FOR BARRIER/DAM MODIFICATION AND REMOVAL: GREAT LAKES BASIN PROTOCOL FOR INFORMATION SHARING, REVIEW AND INPUT"

WHEREAS, Impacts of dams on river and stream ecosystems have, in recent years, resulted in a growing focus on and public pressure for removal of these structures with the goal of restoring affected ecosystems to their original state;

WHEREAS, Many local, state, federal and provincial governmental agencies have initiated or funded efforts to remove or modify dams on streams and rivers throughout North America, including ones on both Canadian and American tributaries of the Great Lakes;

WHEREAS, Well intentioned dam removal or modification efforts often may not take into account broader Great Lakes management objectives and may result in unintended impacts such as downstream mobilization of sediment or upstream transport of contaminants, pathogens, or invasive species such as the sea lamprey;

WHEREAS, Some dams, while interrupting natural watershed dynamics, serve as effective barriers that prevent sea lamprey access to spawning habitat which could exponentially increase their impact on salmon and a wide variety of fish species and cause costly, irreversible damage to the world-class trout, salmon, walleye, and whitefish fisheries;

WHEREAS, Sea lamprey, although controlled at significant expense by the U.S. and Canadian governments, remain a serious problem in the Great Lakes and the ecological and economic damages caused by increased abundances would threaten the robust $7 billion commercial, recreational and tribal fishery in the Great Lakes;

WHEREAS, Funds needed to effectively control sea lamprey permitted access to new lamprey spawning habitat resulting from projected dam removals in the U.S. and Canada would likely dramatically increase the financial burden on both nations; and,

WHEREAS, The aforementioned considerations should be taken into account when analyzing both the benefits and potential harm of removing dams on Great Lakes tributaries.

The Committee of Advisors consists of both U.S. and Canadian representatives, from First Nation, commercial, recreational, academic, agency, and public fishery interests in the Great Lakes Basin. Advisors provide advice to the Great Lakes Fishery Commission; U.S. advisors are nominated by the State Governors, and appointed by the commission. Canadian advisors are nominated by the Ontario Minister of Natural Resources and appointed by the Minister of Fisheries and Oceans Canada.

BE IT RESOLVED, The U.S. and Canadian Advisors to the Great Lakes Fishery Commission recommend that barrier dam modification and removal proposals be subject to Structured Decision Making processes with full transparency and stake-holder engagement and independent facilitation.

BE IT FURHTER RESOLVED, The U.S. and Canadian Advisors to the Great Lakes Fishery Commission recommend all governmental agencies of both nations adopt the Council of Great Lakes Fishery Agencies' *"Decision Support for Barrier/Dam Modification and Removal: Great Lakes Basin Protocol for Information Sharing, Review and Input"* which calls for improved decision making through information sharing, review and input and outlines a process for early consultation with the lake committees and other GLFC groups such as the Sea Lamprey Control Board, U.S. and Canadian Advisors to the Great Lakes Fishery Commission, and Fishery Management Zone Advisory Councils in Ontario – to ensure that ramifications of increased sea lamprey production and other invasive species impacts are appropriately considered during review of proposed barrier dam removal projects.

BE IT FURTHER RESOLVED, All federal, state, provincial, and aboriginal jurisdictions notify the Great Lakes Fishery Commission when any dam removal project on a tributary stream to the Great Lakes is proposed.

Passed unanimously
May 29, 2013

Decision Support for Barrier/Dam Modification and Removal: Great Lakes Basin Protocol for Information Sharing, Review and Input

February 2013

Great Lakes fisheries are a shared resource.

The Great Lakes Fishery Commission (commission) was established by treaty between Canada and the United States in 1955. Its duties include control of sea lamprey populations in the Great Lakes basin, conducting and coordinating fishery research, communicating with governments, and facilitating cooperative fishery management by the Province of Ontario, the eight Great Lakes states and two U. S. tribal organizations, as outlined in *A Joint Strategic Plan for Management of Great Lakes Fisheries*.

Problem Statement: Decisions to remove or modify de-facto barriers may not adequately consider broader Great Lakes management objectives and program costs. Modifications to barriers may include structural changes to barriers that affect fish passage such as fishways, bypass channels and notching or operational policy changes that affect fish passage such as regulating flows and levels, fishway operations or trap and transfer.

Solution – improve decisions through information sharing, review and input: the purpose of this protocol is to improve management decisions by ensuring all affected Great Lakes fishery management agencies are informed of proposals to modify or remove dams or barriers that may affect the Fish Community Objectives of a particular Great Lake, as outlined by *A Joint Strategic Plan for Management of Great Lakes Fisheries* (Joint Strategic Plan).

Decision Authority: the ***responsible agency*** will retain final decision-making authority.

Guiding Principles for Information Sharing, Review and Input:

1. It is assumed that the Responsible Agency will apply this protocol within its own consultation process as mandated by policy or legislation and that lake committee opinions about the proposed action does not preclude other consultative processes (including First Nations, Métis or Tribal consultation and accommodation as required), legislation, or legally-binding agreements.
2. The responsible agency has the legal responsibility to manage its public trust resources and will maintain its authority and decision making regardless of the responses of any lake committee comments.

3. Lake committees will be included in the formal (normal) consultation process (as defined by the responsible agency) and when possible, be engaged prior to formal consultation.
4. Lake committees can act as an initial point of contact for other interested parties of the commission, including the Sea Lamprey Control Board (SLCB) and the Barrier Task Force.
5. The lake committee may share briefing material provided by the responsible agency and seek the support and involvement of the lake technical committee(s), the SLCB, the Barrier Task Force or others.
6. SLCB and the Barrier Task Force may provide comments directly to the responsible agency or through the lake committee.
7. Comments from the lake committee shall not be considered binding.
8. It is expected that due to the complex multi-jurisdictional nature of dam removal/modification proposals, comments from the lake committees may not be the only comments received by the responsible agency.
9. Timelines for evaluation of options and decision making involving other jurisdictions might require lake committees and interested committees of the commission to consult outside of their normal meeting schedules.
10. Timelines will vary based on jurisdictional (responsible agency) policy and the complexity of the individual project; therefore, specific timelines have not been included in this document.

Background: Barrier Management Context

Management decisions related to barrier removal, modification, or maintenance can be complex. In some cases, a barrier may serve as a critical tool to achieve some fish community objectives while simultaneously impeding others.

Dams and other anthropogenic barriers physically and biologically alter riverine ecosystems by fragmenting habitat and blocking seasonal migrations of Great Lakes fishes and other aquatic organisms that rely on tributaries for spawning or other stages of their life history. Natural and man-made structures also play an important role in controlling sea lamprey populations throughout the Great Lakes Basin by effectively blocking the upstream migration of sea lampreys in some Great Lakes tributaries. Many existing barriers have been integrated into the sea lamprey control program, providing low-cost, effective sea lamprey control. Barriers may also mitigate the spread of other invasive species, such as Asian carp and fish pathogens.

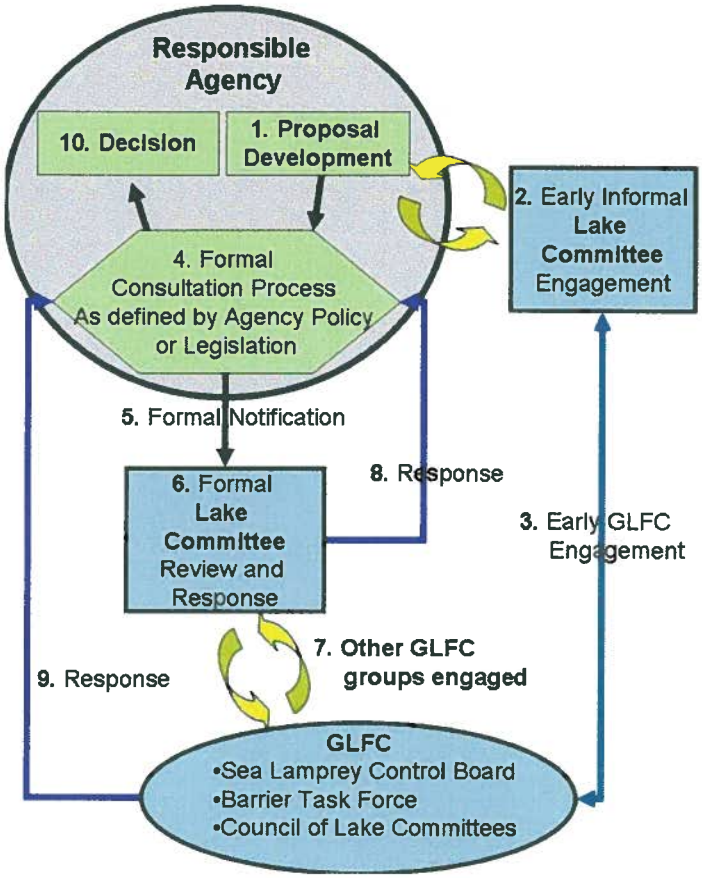
There is increasing interest from governments (federal, provincial/state, municipal), non-government organizations and private organizations and individuals in dam removal, particularly those structures that are near or past their estimated life expectancy. In the future, it is expected that agencies signatory to the Joint Strategic Plan will review an increasing number of proposals to remove or modify *de facto* sea lamprey barriers, and that these proposals may originate either from within a member agency or through stakeholder interests.

Protocol Overview

Figure 1 - Ten Basic Elements.

1. Proposal Development
2. Early engagement of lake committee
3. Early engagement of other GLFC groups
4. Responsible agency formal consultation process
5. Formal notification and information sent to lake committee
6. Lake committee formal review
7. Other GLFC groups formal review
8. Lake committee formal response
9. Other GLFC groups formal response
10. Responsible agency decision

Figure 1: Decision Support for Barrier Dam Modification and Removal



<u>Responsible Agency - Notification Protocol (prior to barrier removal/modification):</u>

The responsible agency should notify affected lake committees by letter (Element 5) when proposing a barrier/dam modification or removal that may have an impact on Great Lake fish community objectives. The notification can be done within the existing state or provincial formal consultation process (Element 4) or as a special early notification (Element 2).

The Council of Great Lakes Fishery Agencies recommends engaging the affected lake committee informally, early in the process at the concept or project development stage (Element 1).

The responsible agency should provide a briefing package (Element 5) to the appropriate lake committee with sufficient background information on the project. At a minimum, the briefing package should include:

- Location of the structure
- Basic description of the structure, including fish passage characteristics
- Project description - full or partial barrier removal and timing.
- Age and engineering evaluation

- Ownership
- Stakeholder interest and involvement
- Impetus for removal or modification (e.g. ecology, public safety, etc.)
- Potential impact on fish community objectives, target waterbody management objectives, and system processes to include connectivity, hydrology, material transport (sediment and woody debris), geomorphology, water quality and energy flow.
- A cost/benefit analysis (where possible) encompassing all of the above

Lake Committee – Review and Input Protocol:

Lake committees will act as the point of contact to other interested committees of the commission, including the SLCB and the Barrier Task Force.

Early Informal Review and Response (Element 2):

When engaged early at the pre-proposal stage, the lake committee may provide feed-back to the responsible agency to help understand cost/benefits, inform the design and development of the project. The lake committee may seek additional advice and support from lake technical committee(s), the SLCB and the Barrier Task Force (Element 3).

Formal Proposal Review (Element 6):

The lake committee will review the project and determine if:

a. The project **IS** consistent with Fish Community Objectives associated with the appropriate Great Lake(s).

b. The project **IS NOT** consistent with Fish Community Objectives associated with the appropriate Great Lake(s).

Formal Response (Element 8):

The lake committee will provide a formal response to the responsible agency expressing support, concern, or an objection to the project and copy CLC and SLCB. Other interested parties may also respond directly to the responsible agency or through the lake committee (Element 9).

Responsible Agency Decision (Element 10):

The responsible agency has decision authority. The Council of Lake Committees encourages the use of structured decision making or an equivalent decision analysis tool to manage complex multi-jurisdictional issues. If a pending decision could result in significant impacts to the sea lamprey control program or potentially compromise fish community objectives as identified through the consultation process, the lake committee should receive early notification.

Appendix A: Definitions

Barrier Task Force – established in 1991 by the Great Lakes Fishery Commission to coordinate construction, operation and maintenance of sea lamprey barriers.

***De facto* Barriers** – Natural or man-made in-stream structures that also function as barriers for fish and wildlife species in Great Lake tributaries.

Council of Great Lakes Fishery Agencies (CGLFA) – The Council of Great Lakes Fishery Agencies serves as the keeper of *A Joint Strategic Plan for Management of Great Lakes Fisheries* and consists of fishery department head for agencies signatory to the joint strategic plan.

Council of Lake Committees (CLC) - The Council of Lake Committees is composed of representatives from fishery management agencies belonging to Lake Committees (see: http://www.glfc.org/boardcomm/clc/clchome.php).

Fish Community Objectives (FCO) – common objectives established by Lake Committees for existing and desired fish communities. Accompanying objectives are descriptions of issues which affect, prevent, or inhibit realization of objectives, and strategies for resolution of those issues. Issues include such stresses as habitat degradation, over harvest, fragmentation and introduction and impact of non-native organisms.

Great Lakes Fishery Commission – an international body established in 1955 by Canada and the United States, which includes among its duties: the determination and recommendation of measures to maximize sustained productivity of fish stocks in the Great Lakes.

A Joint Strategic Plan for Management of Great Lakes Fisheries – A non-binding agreement among Great Lakes fishery management agencies to ensure cooperative and coordinated fishery management in the Great Lakes. (see: www.glfc.org/fishmgmt/jsp97.pdf)

Lake Committee: The multiagency lake management committee comprised of lake managers for each agency that has management authority for that particular lake. There is one lake committee for each Great Lake http://www.glfc.org/lakecom/. The lake committees are responsible for reviewing and executing policy changes that affect fisheries management of the given lake, acting in part on technical information provided by the lake technical committees. See Appendix B for current agency representation of each lake committee.

Lake Technical Committees - Committees established by the lake committees to plan and implement fisheries assessment and research programs, analyze relevant data, and report on progress towards achieving FCOs and Environmental Objectives. Work by the lake technical committees help inform policy actions considered by the lake committee.

Responsible Agency – State/provincial or other agency that owns the dam proposed for removal/modification, or that otherwise has legal authority over the dam removal/modification process. In the event that the agency with legal authority is not signatory to the Joint Strategic Plan, the agency signatory to the Joint Strategic Plan with the geographic jurisdiction for the barrier is considered to be the responsible agency.

Sea Lamprey Control Board (SLCB) - assists the Great Lakes Fishery Commission in the development and implementation of strategies and policies related to the control of sea lamprey for the management of Great Lakes fish communities.

Structured Decision Making (SDM) – SDM is a formal process for making complex decisions, and allows for the explicit incorporation of technical information, local values, knowledge and policies. Expertise for conducting SDM is available through the Quantitative Fisheries Center, MI State University. For more information, see http://www.fws.gov/science/doc/structured_decision_making_factsheet.pdf.

Appendix B

Lake Committee Agencies and Member Contacts

- Lake Ontario Committee
  - New York, Steve LaPan, srlapan@gw.dec.state.ny.us
  - Ontario, Andy Todd, andy.todd@ontario.ca
- Lake Erie Committee
  - Michigan, Todd Kalish, kalisht@michigan.gov
  - New York, Don Einhouse, dweinhou@dw.dec.state.ny.us
  - Ohio, Jeff Tyson, jeff.tyson@dnr.state.oh.us
  - Ontario, Bruce Hawkins, bruce.w.hawkins@ontario.ca
  - Pennsylvania, Dave Miko, dmiko@pa.gov
- Lake Huron Committee
  - Michigan, Todd Grischke, grischket@michigan.gov
  - Ontario, David McLeish, david.mcleish@ontario.ca
  - Chippewa-Ottawa Resource Authority, Tom Gorenflo, tgorenflo@sault.com
- Lake Michigan
  - Illinois, Steve Robillard, steve.robillard@illinois.gov
  - Indiana, Jeremy Price, jprice@dnr.in.gov
  - Michigan, Todd Kalish, kalisht@michigan.gov
  - Wisconsin, Brad Eggold, Bradley.eggold@wisconsin .gov
  - Chippewa-Ottawa Resource Authority, Tom Gorenflo, tgorenflo@sault.com
- Lake Superior Committee
  - Michigan, Phil Schneeeberger, schneebergerp@michigan.gov
  - Minnesota, Don Pereira, don.pereira@state.mn.us
  - Ontario, David McLeish, david.mcleish@ontario.ca
  - Wisconsin, Steve Hewett, steven.hewett@wisconsin.gov
  - Chippewa-Ottawa Resource Authority, Tom Gorenflo, tgorenflo@sault.com
  - Great Lakes Indian Fish and Wildlife Commission, Bill Mattes, bmattes@glifwc.org