



Considerations in Governance of Aquatic Invasive Species Management – Experience on the International Great Lakes

Global AIS Policy & Legislation Drivers
Session

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Aquatic Invasive Species Governance

- Invasive species are recognized as mechanisms of change in ecosystems with significant impact on natural resources – they have re-engineered Great Lakes ecosystems
- Management of aquatic invasive species represents significant challenges because efforts cross boundaries within natural resource and environmental agencies, among agencies, among States and Provinces, and across borders between countries.
- The experience dealing with aquatic invasive species in the Laurentian Great Lakes includes all of these challenges and this experience illustrates key principles for successful governance.
- Challenges remain



Outline

- Managing Aquatic Invasive Species
- Great Lakes Ecosystems
- Great Lakes Institutions and Collaborations
- Conclusions





Aquatic Invasive Species Management

Critical issues -

- Recognition of importance at all levels of government
- Legislation and Regulations are in place in all jurisdictions

Possible actions -

- Prevention
- Early Detection / Response
- Control
- Adaptation

Actions require -

- Common objectives
- Speed
- Coordination





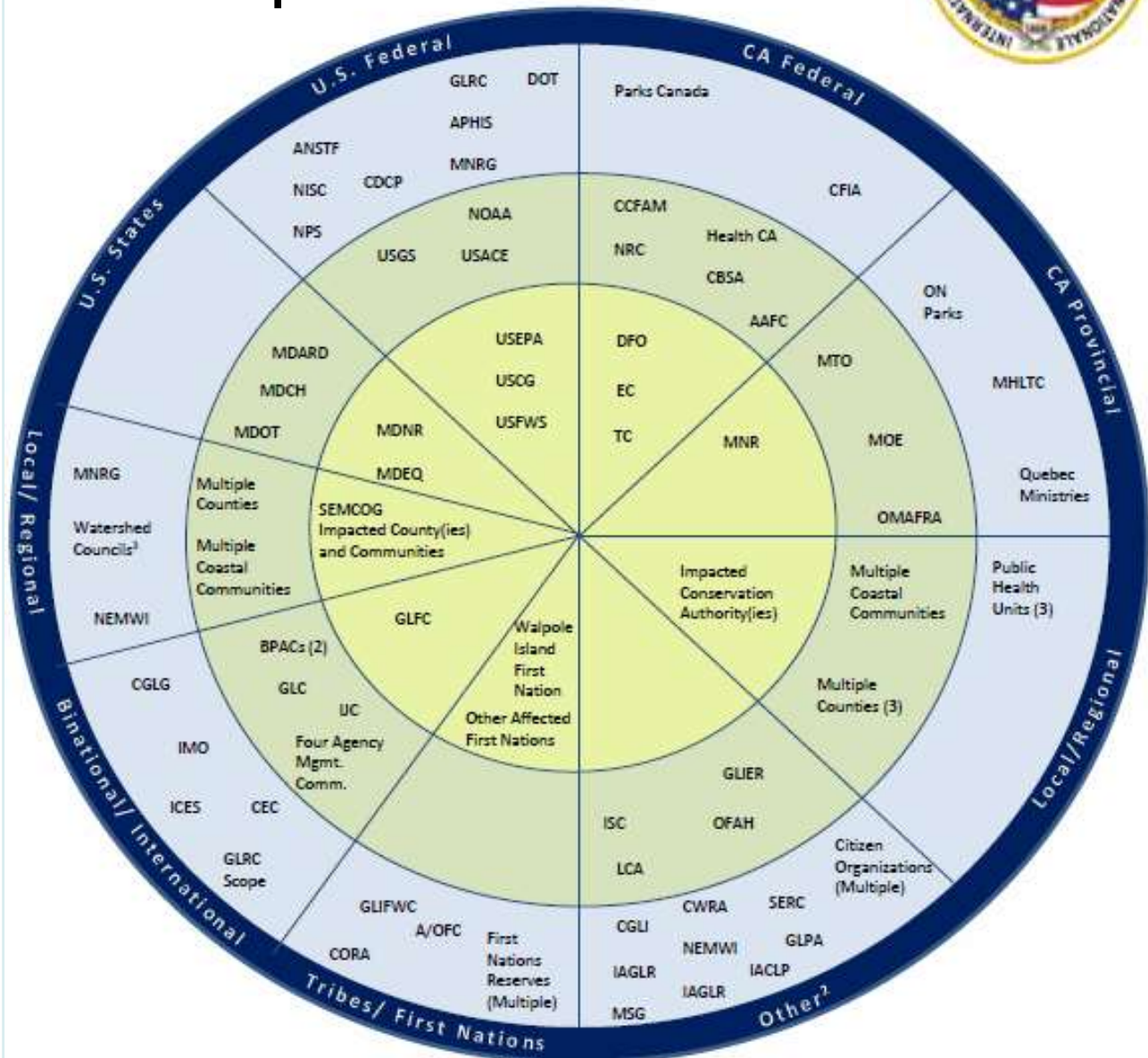
Shared Great Lakes





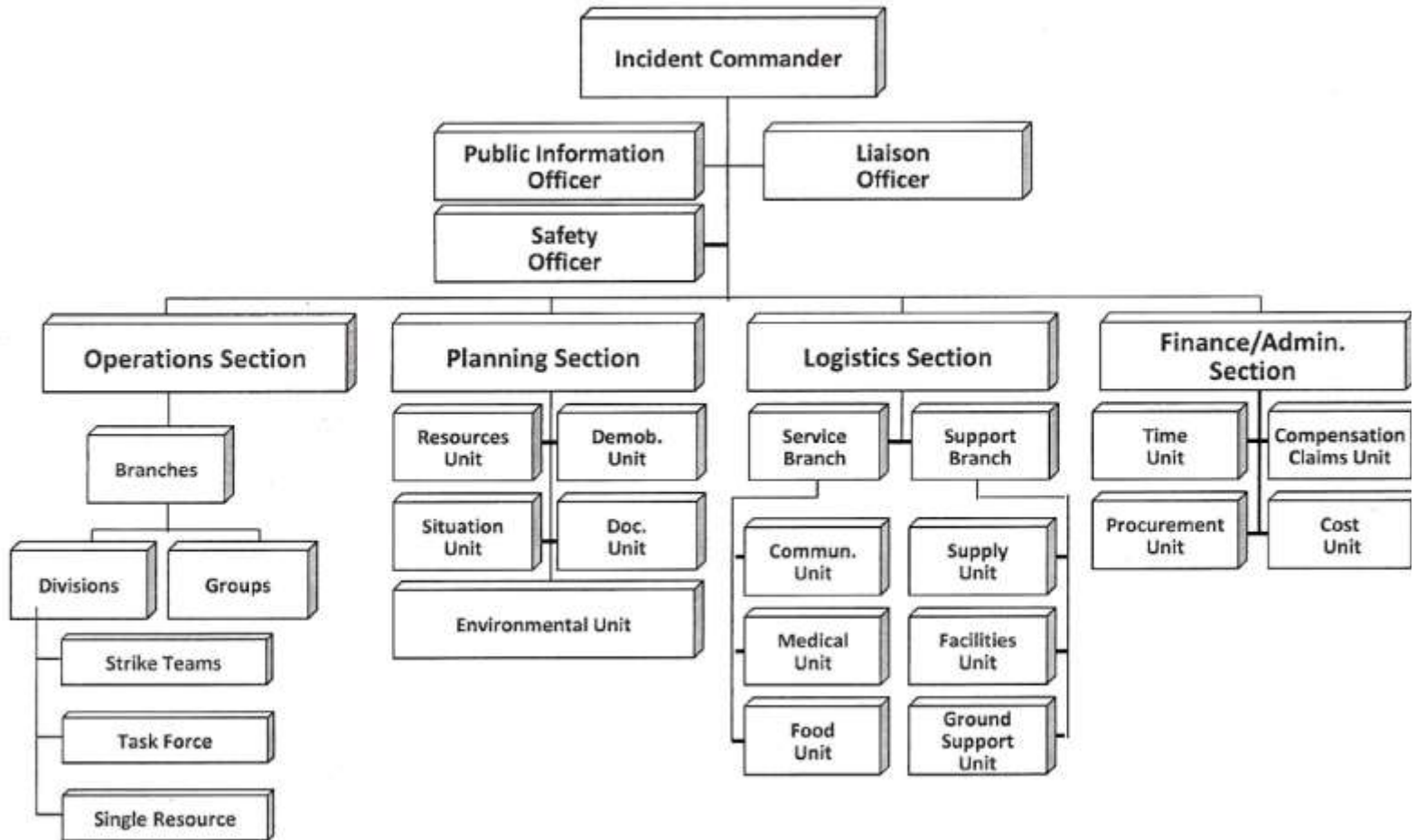
Binational Response Plan - Pilot

- Huron-Erie Corridor
- Table-top exercise
- Asian carp event



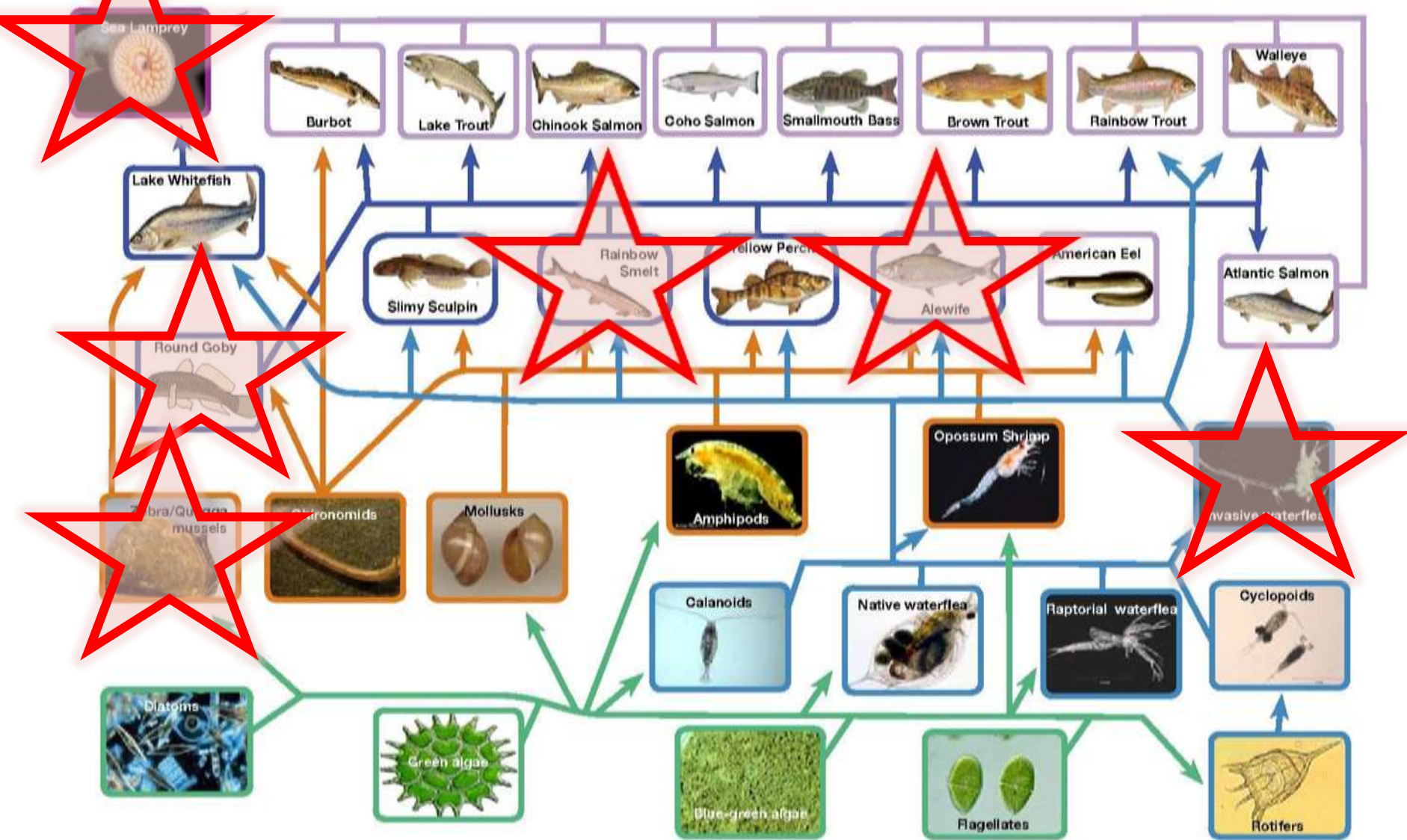


Unified Incident Command Structure



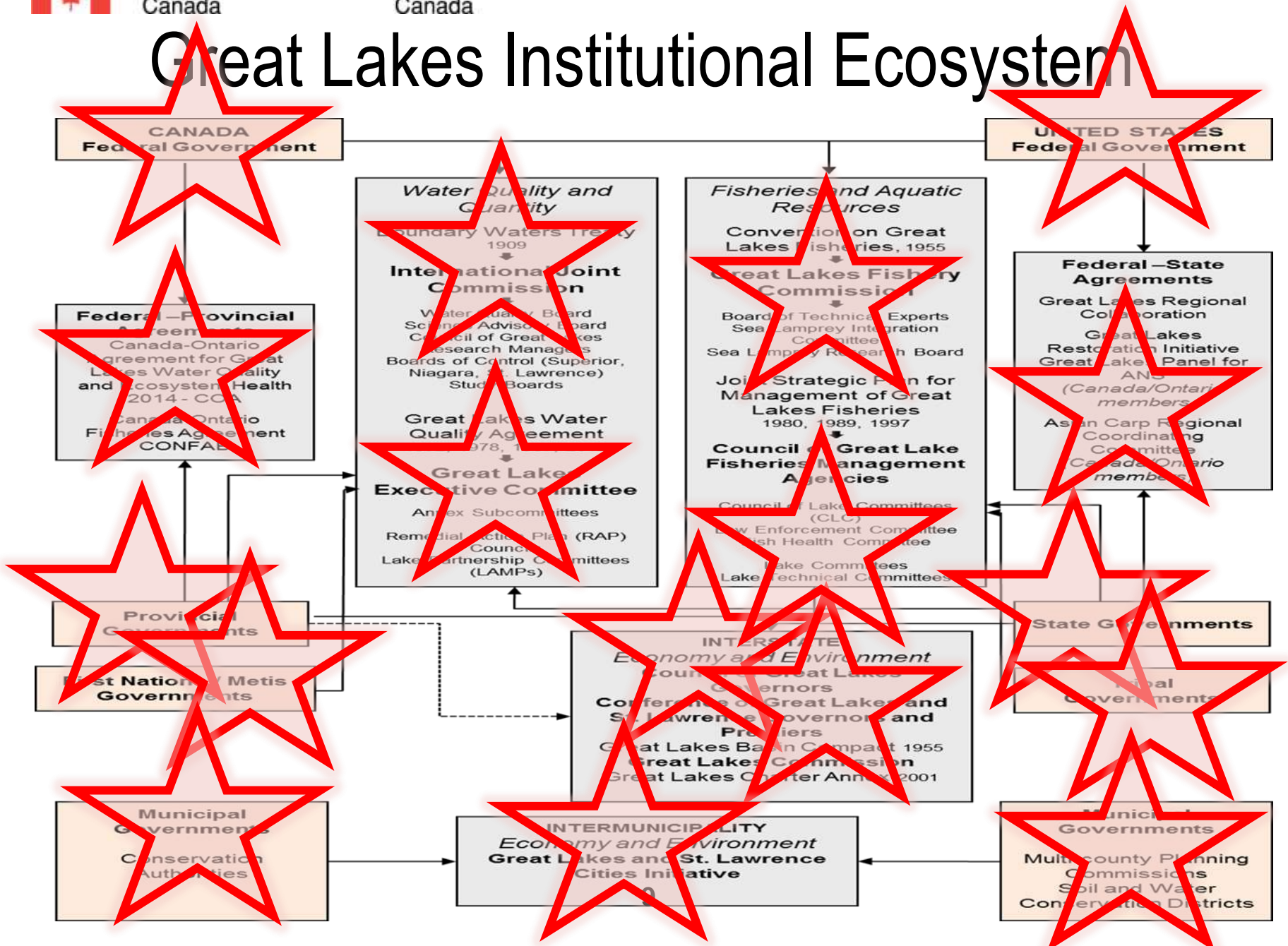


Great Lakes Ecosystems





Great Lakes Institutional Ecosystem



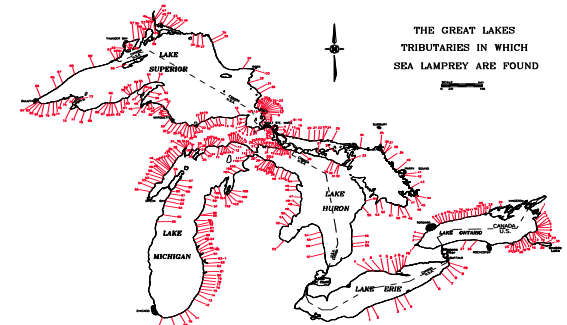




Great Lakes Fishery Commission



- Established in 1955 by the Convention on Great Lakes Fisheries – Funded by Canada and the United States
- Duties – perpetuating shared fisheries resources by
 - Control of the invasive sea lamprey
 - Coordinating fisheries and sea lamprey research
 - Facilitating joint fisheries management
- Commissioners – appointed by Canada and the United States
- Advisory Boards for research and Sea Lamprey control
- Sea lampreys have been suppressed by 90% by targeted stream treatments with lampricides
- Control intensity and targets developed jointly
- Commission decides on allocation of control across borders to maximize effectiveness and efficiency



THE GREAT LAKES
TRIBUTARIES IN WHICH
SEA LAMPREY ARE FOUND



**Fisheries and
Oceans Canada**



**U.S. Fish and
Wildlife Service**

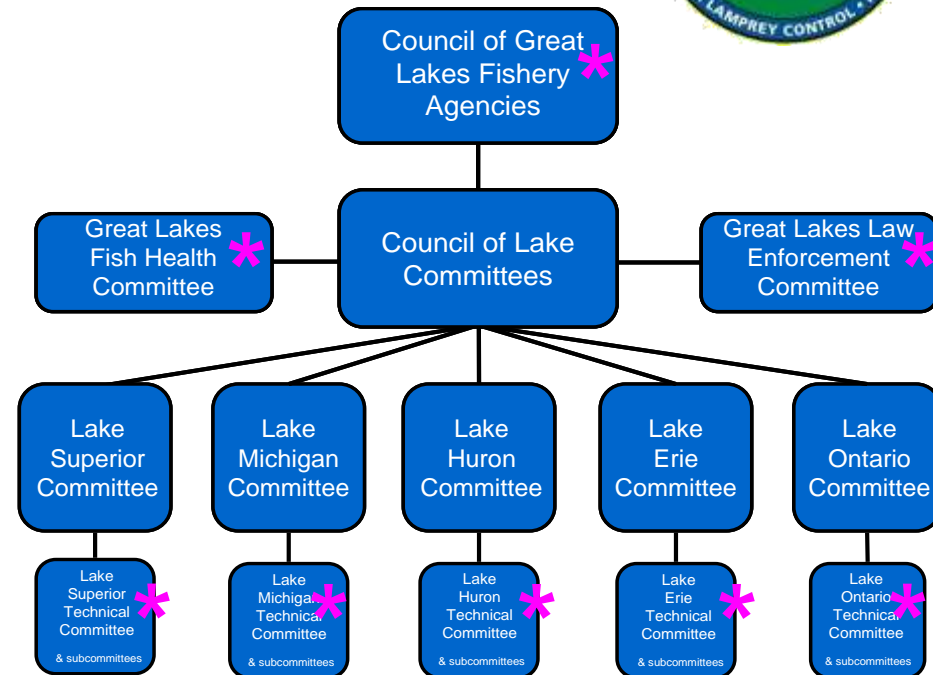




Joint Strategic Plan for Management of Great Lakes Fisheries



- Participants work together
 - On “issues of common concern”
 - Consensus decisions
 - Cooperative management
 - Individual jurisdiction actions
- Strategic products
 - Fish Community Objectives
 - State of Lake Reporting
 - Fishery/Restoration Management Plans
- Tactical decisions
 - Total allowable catch for shared stocks
 - Stocking and restoration actions
- Clear accountability and responsibilities for all parties
- Success comes from strong partnerships and commitment by all parties





Great Lakes Panel on Aquatic Nuisance Species

- 1991 - U.S. Nonindigenous Aquatic Nuisance Prevention and Control Act / National Invasive Species Act 1996
- Support for the National Aquatic Nuisance Species Task Force
- Membership – Federal (10), State (8), Canadian Federal (2) Provincial (2), binational (2), Tribal (2), Local (2), User Groups (2), Commercial (4), Research(3)
- Structure
 - Information/Education Committee
 - Research Coordination Committee
 - Policy Coordination Committee





Asian Carp Regional Coordinating Committee

- Whitehouse Council on Environmental Quality 2010
- Membership: Federal (8), State (11), Municipal (2), Canadian Federal (1), Provincial (1)
- Great Lakes / Ohio River / Upper Mississippi River
- Control program to prevent introduction to protect the Great Lakes ecosystem from an invasion via all viable pathways
 - Chicago Area Waterway System
- Asian Carp Control Strategy Framework
- Monitoring and Response Plan





Collaboratives

- Great Lakes Ballast Water Collaborative
- Great Lakes Phragmites Collaborative
- Invasive Mussel Collaborative
- Engaging stakeholders
- Information flow
- Linking science and management
- Collective Impact



**Invasive Mussel
Collaborative**





Great Lakes Water Quality Agreement 2012 – Aquatic Invasive Species Annex 6

Purpose: establish a binational strategy to prevent the introduction of AIS, to control or reduce the spread of existing AIS, and to eradicate, where feasible, existing AIS within the Great Lakes Basin Ecosystem, including:

- Ballast water management (with in Annex 5)
- Prevent the introduction and spread of AIS by:
 - Conducting binationally coordinated risk assessments on pathways
 - Developing regulations or management strategies informed by risk assessments and coordinating implementation
- Education and outreach efforts
- Establish barriers that prevent spread
- Inter-basin transfer of water considers risk of AIS



Great Lakes Water Quality Agreement

Protocol Amending the Agreement Between Canada and the United States of America
on Great Lakes Water Quality, 1978, as Amended on October 16, 1985,
and on November 18, 1987

Signed September 7, 2012
Entered into force February 11, 2013





Great Lakes Water Quality Agreement – Aquatic Invasive Species Annex 6

Develop & implement an early detection & rapid response initiative that:

- Develops species watch lists
- Identifies priority locations for surveillance
- Develops monitoring protocols for surveillance
- Establishes protocols for sharing information
- Identifies newly introduced AIS
- Coordinates effective & timely domestic and, when necessary, binational response actions to prevent the establishment of newly detected AIS





Great Lakes Water Quality Agreement – Aquatic Invasive Species Annex 6

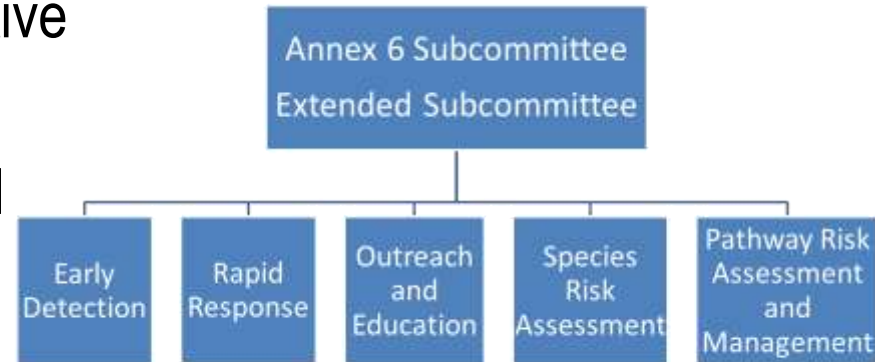
Annex 6 Subcommittee

- Core Membership – Great Lakes Executive Committee organization members

- U.S. Canadian Federal, State, and Provincial
- First Nations and Tribal authorities
- From Great Lakes Panel and the Council of Lake Committees

- Extended Subcommittee

- International NGO and other agencies





Conference of Great Lakes and St. Lawrence Governors and Premiers

- Aquatic Invasive Species Task Force (2001)
- Stopping the further introduction and spread of aquatic invasive species (AIS) into the Great Lakes and St. Lawrence River
- “Least Wanted List”
- Mutual Aid Agreement
 - States and Provinces to act collaboratively and share staff and expertise in response to an AIS threat
- Harmonization of Species Risk assessments





Aquatic Invasive Species Management

- Great Lakes have a history of effective collaboration to tackle fisheries and environmental issues
- The principles underlying those collaborations include:
 - common purpose
 - clear definition of issues of common concern;
 - clear terms for reaching consensus;
 - clear roles and responsibilities; and
 - recognition of individual jurisdiction legal, regulatory, and policy integrity.





Thank you