A Multijurisdictional Approach in Managing the Aquatic Invasive Species Problem in the Great Lakes

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Great Lakes Panel on ANS
A Priority Issue in the Great Lakes Region
A Multijurisdictional Approach in Managing the Aquatic Invasive Species Problem in the Great Lakes

Topics covered today

- The value of Great Lakes at risk from the impacts of aquatic invasive species
- Federal legislation recognizes the need for regional approach to address AIS problems
- The Great Lakes Panel on Aquatic Nuisance Species: Taking a multijurisdictional approach to AIS management in the Great Lakes region
The Great Lakes: A Precious Aquatic Resource at Risk

- Contains largest freshwater system on earth covering more than 94,000 miles. This system one-fifth of the world’s fresh water surface water supply
- Contains forests and wilderness areas, rich agricultural land, lakes and streams
- Diverse aquatic ecosystem: world class fishery with 180 native fish
- Governed by 8 states and 2 provinces and the federal governments of the United States and Canada
Ecological Treasure

- World’s largest system of freshwater dunes
- 500,000 acres of coastal wetlands
- 30,000 islands
- World-class fishery
- 300 globally rare species and habitat types
- 46 plants and animals found nowhere else
North America’s “Waterbelt”

- Nearly 20% of the world’s surface freshwater
- About 90% of U.S. surface freshwater

Home to 35 million people
- 25 million US
- 10 million Canada

Major Urban Centers
Agriculture (irrigation, livestock)
Drinking water
Tourism, Boating and Recreation
Shipping
Hydropower
Industrial uses and cooling

“Blue Water” Economy
Great Lakes governed by 8 states and 2 provinces and the federal governments of the United States and Canada
**Governance in the Great Lakes**

- **Binational** – Great Lakes Water Quality Agreement and the International Joint Commission

- **Regional** – Great Lakes Commission, Great Lakes Fishery Commission, Council of Great Lakes Governors,

- **Federal Lead** – U.S. EPA-Great Lakes National Program Office

- **State** – Eight Great Lakes states
**Other Regional Players**

- Tribal authorities
  - Council of Great Lakes Industries
  - Great Lakes-St. Lawrence Cities Initiative
  - Northeast-Midwest Institute (Great Lakes Congressional Task Force)
  - NGOs – NWF, Sierra Club, Audubon, TNC, DU, Alliance for the Great Lakes, Great Lakes United, NRDC and many others
Since the 1800s, more than 180 non-indigenous aquatic species have invaded the Great Lakes ecosystem from around the world, causing severe economic, ecological and human health impacts.
Vectors of AIS
Introduction and Spread

Aquaculture

Maritime Commerce

Canals and Waterways

Organisms in Trade

Recreational Activities
Zebra Mussel (*Dreissena Polymorpha*)
The First Known Invader of the Great Lakes

- Filter-feeding, fingernail-sized mussels
- Native to the Baltic Sea region of Eurasia
- Transported to the Great Lakes via ballast water from transoceanic vessels
- Discovered in Lake St. Clair, near Detroit (1988)
Economic, Ecological and Recreational Impacts

- Contribute to clogged water-intake systems of power plants, water treatment facilities, irrigation systems, and the cooling systems of boat engines.
- They have severely reduced, and may eliminate native mussel species.
- Degradation to beaches and swimming areas from deposits of zebra mussel shells littering beaches and shorelines.
- Threat to multi-billion dollar annual sport fish industry including trout, salmon and walleye.
Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (NANPCA)
- Established largely in response to the invasion of zebra mussel in the Great Lakes and subsequent economic and ecological impacts
- Purpose of legislation:
  - Prevent further AIS introductions
  - Coordinate research and outreach on AIS problems
  - Implement environmentally sound control methods
  - Minimize economic and ecological impacts
  - Establish research and technology program to benefit state governments
U.S. Federal Legislation on Aquatic Nuisance Species (ANS)

NANPCA provides for establishment of multi-jurisdictional prevention and control programs on a national, regional, and state level:

- **National ANS Task Force**: A federal interagency body to coordinate ANS management nationally.

- **Great Lakes Panel on Aquatic Nuisance Species**: A regional entity to address AIS problems in the Great Lakes with multi-jurisdictional representation from states and federal agencies, tribes, industry, NGOs, and others.

- **State ANS Management Plans**: Program allowing states, individually or jointly, to access federal funds to implement approved management plans.
Great Lakes Panel on Aquatic Nuisance Species

Multijurisdictional Membership

- federal (U.S./Canadian)
- state/provincial
- regional/binational
- tribal authorities
- local
- environmental groups
- user groups
- commercial interests
- university/research
Great Lakes Panel on Aquatic Nuisance Species

Mission: To coordinate the development of education, research and policy to prevent new aquatic invasive species from entering the Great Lakes basin and to control and mitigate those AIS populations already established.

Coordinator: Pursuant to NANPCA, the Great Lakes Commission convened the Great Lakes Panel in 1991 and has serve as the administrating body and coordinator for the Panel.

Funding: Provided by the U.S. Fish and Wildlife Service through the ANS Task Force.

Guidance for Operations (developed by GLC Staff and the Executive Committee): Provides guidance on the structure, membership and operation of the Great Lakes Panel.
Great Lakes Panel on Aquatic Nuisance Species

The Panel carries out this mission through activities in the following areas, per Section 1203 of NANPCA as amended by NISA, pursuant to appropriations:

- Identify AIS priorities for the Great Lakes;
- Develop regional position statements on AIS priorities;
- Make recommendations to the national ANS Task Force, as stipulated in Section 1202 of NANPCA;
- Assist the ANS Task Force in coordinating federal AIS program activities;
- Provide advice to public entities, private sector groups and other interested parties concerning AIS prevention and control;
- Coordinate AIS program activities in the Great Lakes in areas related to information and education, research and policy as well as other areas that are not cited directly in the 1990 Act; and
- Provide a forum for interagency/organizational communication and serve as a vehicle for regional dialogue and discussion on AIS issues.
Great Lakes Panel on Aquatic Nuisance Species

Committees
- Executive: Panel Officers (Chair, Vice Chair, Committee Chairs)
- Information/Education
- Research Coordination
- Policy Coordination
General guidelines:

- Remove all visible mud, plants, fish/animals
- Eliminate water from all equipment before transporting anywhere
- Clean and dry anything that came in contact with the water
- Do not release or put plants, fish or animals into a body of water unless they came out of that body of water
Research Coordination Committee

- **Recommendation to the ANS Task Force:** Professional Responsibility for Reporting of Aquatic Invasive Species: The Panel strongly urges researchers and other relevant groups to report new discoveries of AIS, either new species or known species in new locations, in a timely manner to the appropriate state or federal natural resource agency.

- **Priority Species List:** Established consensus based list for priority species of concern for the Great Lakes region.
Policy Coordination Committee

Recommendation on Great Lakes Water Quality Agreement Renegotiation: Submitted to ANSTF, Oct. 2010

- Implement a new annex that explicitly addresses the problems of AIS and integrates existing prevention, control and management goals and objectives
- Ensure the renegotiation and annex development processes provide adequate and meaningful opportunities for stakeholder engagement
- Maximize resources and knowledge by utilizing and, if necessary, modifying existing institutional arrangements to coordinate the implementation of an AIS annex under a revised Agreement
Position Statement on a National Ballast Water Discharge Standard: The Panel supports a consistent, science-based, national ballast water discharge standard that reconciles and harmonizes the various federal and state requirements. The standard must protect the Great Lakes basin from further invasion while maintaining a level national economic playing field.
Great Lakes Panel on Aquatic Nuisance Species Lessons Learned on AIS Management

- A Collaborative Approach to Advance Implementation of State Management Plans for the Prevention and Control of Aquatic Nuisance Species in the Great Lakes Region
- Model Rapid Response Plan for Great Lakes Aquatic Invasions
- Advancing Aquatic Nuisance Species Management of Organisms in Trade in the Great Lakes Region
Education and Outreach: Builds Understanding and Political Will Needed to Solve the Problem

Booklet Available online at: http://www.glc.org/ans/aquatic-invasions/
Check out our Great Lakes Panel website to learn more!

http://glc.org/ans/panel.html