Name of Organization: Great Lakes Commission

Type of Organization: Interstate Agency or Commission

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Project Title: Establishing Standards for Ballast Water Management

Project Category: Exotic Species

Rank by Organization (if applicable): 1

Total Funding Requested ($): 63,658 **Project Duration:** 1 Years

Abstract:

Ballast water from commercial vessels is widely considered to be the leading pathway for the introduction of nonindigenous aquatic nuisance species into the Great Lakes and other U.S. waters. Efforts to address the problem have been significantly hampered by the lack of clear standards and associated regulatory guidance concerning technologies and management practices that may offer effective alternatives to the current reliance on high-seas ballast exchange. The proposed project will directly address this critical unmet need for coordination at the federal, state, provincial and maritime industry levels by formulating and communicating Great Lakes priorities and perspectives. A detailed briefing paper will be prepared on ballast water standards and associated issues, and a forum will yield recommendations for policymakers at the state/provincial, federal and international levels. Drawing from the briefing paper and their own experience, experts from the regulatory, maritime, research and business communities will evaluate the role of standards in developing pollution prevention technologies; the utility and limitations of existing ballast water regulations; issues and criteria to be incorporated into a strengthened regulatory regime for ballast water; and mechanisms that can compel and assist the maritime industry in complying with new standards without undue economic hardship. Detailed recommendations, as well as a framework for the standards development process, will be prepared and broadly disseminated. Working through the Great Lakes Panel on Aquatic Nuisance Species and other regional stakeholders, project results will be broadly disseminated and linked with related policy discussions, including reauthorization of the 1996 National Invasive Species Act.

Geographic Areas Affected by the Project

States:

- [x] Illinois
- [x] Indiana
- [x] Michigan
- [x] Minnesota
- [x] New York
- [x] Pennsylvania
- [x] Wisconsin
- [x] Ohio

Lakes:

- [ ] Superior
- [ ] Huron
- [ ] Michigan
- [ ] Erie
- [ ] Ontario
- [x] All Lakes

Geographic Initiatives:

- [x] Greater Chicago
- [x] NE Ohio
- [x] NW Indiana
- [x] SE Michigan
- [x] Lake St. Clair

Primary Affected Area of Concern: All AOCs

Other Affected Areas of Concern:

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area:

Other Affected Biodiversity Investment Areas:

Problem Statement:

Ballast water from commercial vessels is widely considered to be the leading pathway for the introduction of nonindigenous aquatic nuisance species into the Great Lakes and other U.S. waters. Efforts to address the problem have been significantly hampered by the lack of clear standards and associated regulatory guidance concerning technologies and management practices that may offer effective alternatives to the current reliance on high-seas ballast exchange. The proposed project will directly address this critical unmet need for coordination at the federal, state, provincial and maritime industry levels by formulating and communicating Great Lakes priorities and perspectives. A detailed briefing paper will be prepared on ballast water standards and associated issues, and a forum will yield recommendations for policymakers at the state/provincial, federal and international levels. Drawing from the briefing paper and their own experience, experts from the regulatory, maritime, research and business communities will evaluate the role of standards in developing pollution prevention technologies; the utility and limitations of existing ballast water regulations; issues and criteria to be incorporated into a strengthened regulatory regime for ballast water; and mechanisms that can compel and assist the maritime industry in complying with new standards without undue economic hardship. Detailed recommendations, as well as a framework for the standards development process, will be prepared and broadly disseminated. Working through the Great Lakes Panel on Aquatic Nuisance Species and other regional stakeholders, project results will be broadly disseminated and linked with related policy discussions, including reauthorization of the 1996 National Invasive Species Act.

Proposed Work Outcome:

The Great Lakes Commission will consult closely with the Great Lakes Panel on Aquatic Nuisance Species in designing and carrying out the project and disseminating its results. Recommendations from the project will be formally presented to the Panel for its consideration and prospective endorsement, and will also be made available to all stakeholders interested in this issue, and in NISA reauthorization generally. The Commission will pursue the following methodology in accomplishing the project's goals:

A) Project Scoping and Technical Advisory Committee: The Great Lakes Commission will convene a Technical Advisory Committee of 10-12 members to assist with project scoping, technical advice, and overall project conduct. Drawn from the scientific, maritime and public policy communities in the Great Lakes-St. Lawrence region and beyond, the committee will help shape a detailed project methodology and confirm that all goals are met. Strong participation from U.S. EPA and the U.S. Coast Guard (as well as their Canadian counterparts) will ensure that the regulatory authorities of these agencies are thoroughly addressed and that project recommendations make a practical and substantive contribution to the standards development process at the federal level.

B) Project Research and Briefing Paper: Project staff will research existing ballast water standards and regulations in the U.S., Canada and internationally, as well as research and development efforts that will impact future standards. In addition,

project research will address the legal and regulatory framework as it relates to ballast water discharges; the process through which other water quality-related standards were developed and the lessons learned from that experience (e.g., Clean Water Act); the historical relationship between standards and the technology development process; the role of incentives and related mechanisms in facilitating compliance with new standards; and the anticipated process through which a revised regulatory framework can be developed and implemented. A detailed briefing paper will be prepared summarizing this research and framing key questions for consideration by Panel members, forum participants and other interested parties. The Technical Advisory Committee will review the briefing paper at key stages of development to ensure that it is technically accurate and consistent with overall project goals.

C) Forum on Ballast Water Standards: A "by-invitation" forum will be targeted at the scientific/ technical community (i.e., those who develop/assess ballast management technologies); the user community (i.e., shipping and other maritime representatives); and the policy/regulatory community (i.e., those responsible for developing and/or administering ballast water standards and regulations). The draft briefing paper will be sent to all participants in advance to provide a common baseline of knowledge and to explicitly frame the key questions to be addressed at the forum. Presentations and facilitated dialogue will yield consensus-based findings and recommendations. Modest funding will be available to ensure participation by critical stakeholders.

D) Findings and Recommendations for Ballast Water Standards: A proceedings document highlighting findings and recommendations will be produced and reviewed by the Technical Advisory Committee and forum participants. A key component will be detailed recommendations for ballast water standards and a framework for their development and implementation. The document will also highlight issues of special concern to the Great Lakes-St. Lawrence region.

E) Dissemination of Project Results: Project results will be broadly disseminated to the ANS/ballast water community in the Great Lakes region and beyond. Specifically, the results will be formally presented to the Great Lakes Panel, the national ANS Task Force (and its Ballast Water and Shipping Committee), the Invasive Species Council and associated Invasive Species Advisory Committee, and other relevant entities. The Commission staff will work with the Great Lakes Panel to incorporate project recommendations into any prospective Panel statement on the reauthorization of NISA. Project staff will disseminate outcomes via print and electronic means and, in particular, via continued interaction with the scientific/technical, user, and public policy communities.

The proposed project is timely and important for several reasons. It builds on and extends the substantial accomplishments of the Great Lakes Panel on Aquatic Nuisance Species on the ballast water issue, including the Panel's 1998 policy position A Binational Canadian-United States Ballast Water Research Strategy and the Panel's 1999 symposium and recommendations titled Ballast Water Management and Aquatic Nuisance Species: A Research Agenda for the Great Lakes. At its October 1999 meeting, Panel members expressed a strong interest in continuing work on the issue, including a forum on ballast water standards.

The project directly responds to recommendations from several recent forums and policy documents. The recommendations from the Panel's 1999 symposium, currently being finalized, call for "standards of acceptability for proposed ballast water technologies and management strategies to guide researchers, vessel operators and the broader maritime community." The document also recommends evaluating options for mitigating the financial burden of ballast water requirements to the shipping industry and reviewing the history of other pollution control efforts to identify "lessons learned" from their technology development programs.

A 1999 report on ANS laws and policies commissioned by the Michigan Department of Environmental Quality, Office of the Great Lakes, also recommends development of ballast water standards. The report states that "Congress should improve the current federal regulatory regime by: a) adopting a performance standard, at an appropriate level of effectiveness, in place of the salinity standard for high-seas ballast exchange, b) amending the special safety exemption which was inserted into [NISA], c) adopting federal measures for addressing "NOBOB" vessels, and d) supporting the Canadian Government's new regulations being promulgated under the Shipping Act."

The outcome of the International Joint Commission's 1999 workshop on exotics policy also strongly supports the goals of the proposed project. The workshop report notes "remarkable agreement among all participants" on the need for "a meaningful standard for regulating the exchange or treatment of ballast water, and an incentive for industry to met [sic] (or exceed) that standard" (emphasis in original). The report calls this "an important consensus," but suggests that it may mask "significant disagreement on important details, such as what the standard should be, or how incentives and regulations should be framed." Workshop participants also warned against the government focusing on "the one solution" rather than establishing "end of the pipe" standards for industry to meet based on their own expertise and experience. Finally, industry participants called for a "level playing field" that does not place a disproportionate burden on the Great Lake-St. Lawrence maritime industry relative to other regions of the country.

The project is extremely timely in connection to a wide array of recent initiatives relating to ballast water standards and regulatory oversight. Legislation in California and Michigan proposes to regulate ballast water discharges under state authorities and numerous ports are now requiring open-ocean ballast exchange. On a national level, U.S. EPA has been

petitioned to regulate ballast water discharges under the Clean Water Act. Finally, at the international level the International Maritime Organization has adopted voluntary guidelines for ballast water management and a new annex on the issue may be proposed to the International Convention for the Prevention of Pollution from Ships. Interest also exists in developing a new annex on aquatic nuisance species under the U.S.-Canada Great Lakes Water Quality Agreement.

These and other initiatives are currently driving the policy debate. Ballast water regulations will likely be substantially revised in the near future with standards, in some form, likely to emerge. The overall dialogue remains fragmented and incomplete, however, and too often subject to the narrow interests of individual entities. The proposed project will facilitate a comprehensive, reasoned and unbiased approach to the challenge of establishing ballast water standards. It will also assist U.S. EPA in responding to the Clean Water Act petition and related initiatives. Finally, the project will continue the Great Lakes' historic leadership role on ANS issues while ensuring that the region's priorities are addressed.

Project activities will be scheduled to tie in with the 11th international ANS conference, which is expected to be held in Washington, D.C. in early 2001. Commission staff will ensure that project results are reported at this major event. In addition, project recommendations will be finalized in time to contribute to the NISA reauthorization process beginning in 2001. In light of the growing nationwide focus on the ANS issue and the increasing number of stakeholders involved, NISA reauthorization will attract a great amount of attention. By working with the Great Lakes Panel, the Commission will ensure that project results are effectively communicated to all parties engaged in public policy decisionmaking.

Finally, the proposed project responds directly to criteria and guidelines listed in the Invasive Species section of the Great Lakes Priorities and Funding Guidance document. By focusing on the most prominent pathway of ANS introductions into the Great Lakes, the project has a pronounced emphasis on prevention. Project outcomes will have Great Lakes Basin-wide applicability and direct relevance and transferability beyond the region. The project will also advance government and private sector partnerships and collaboration, particularly through development of incentives and related mechanisms for facilitating solutions to the ballast water issue.

Project Milestones:	**Dates:**
Project Start	09/2000
Project Scoping & Tech. Advisory Comm.	10/2000
Project Research & Briefing Paper	11/2000
Forum on Ballast Water Standards	04/2001
Findings & Recommendations	06/2001
Dissemination of Project Results	08/2001
	/
Project End	09/2001

☐ Project Addresses Environmental Justice

If So, Description of How:

☒ Project Addresses Education/Outreach

If So, Description of How:

The project outcome and specific recommendations will be broadly disseminated to the ANS community in the Great Lakes and beyond. A feature article will be included in the ANS Update newsletter and the Commission's Advisor newsletter and project results will be presented at the annual ANS conference and other forums. The final project report will also be made available on the Internet via the Great Lakes Information Network. By working with the members of the Great Lakes Panel on Aquatic Nuisance Species, the Commission will ensure participation from and outreach to the full range of ANS stakeholders in the Great Lakes region.

Project Budget:

	Federal Share Requested ($)	Applicant's Share ($)
Personnel:	27,000	2,500
Fringe:	9,450	875
Travel:	5,000	0
Equipment:	0	0
Supplies:	2,000	0
Contracts:	1,500	0
Construction:	3,500	0
Other:	0	0
Total Direct Costs:	48,450	3,375
Indirect Costs:	15,208	1,181
Total:	63,658	4,556
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

Funding for the project is not being solicited from any other sources. However, the project will benefit substantially from existing and anticipated support for the Great Lakes Panel on Aquatic Nuisance Species as well as project-specific ANS activities managed by the Commission with the Panel's oversight.

Description of Collaboration/Community Based Support:

The Great Lakes Commission staff has extensive experience in ANS prevention and control and, in particular, with the ballast management issue. The staff has coordinated the Great Lakes Panel on Aquatic Nuisance Species since 1990, and has successfully completed more than a dozen projects addressing legislative, policy, planning and scientific aspects of ANS prevention and control. This has included involvement with several technology investigations and development of detailed ballast water research recommendations. Dr. Michael J. Donahue, executive director, and Kathe Glassner-Shwayder, project manager, will co-direct the project with assistance from technical support staff, as needed.

Building on relationships established via its coordination of the Great Lakes Panel and project-specific ANS activities, the Commission will solicit collaboration from key stakeholders, including but not limited to, U.S. EPA, the U.S. Coast Guard, Fisheries and Oceans Canada, the Lake Carriers' Association, Great Lakes Shipping Association, St. Lawrence Seaway Development Corp., Sea Grant research programs, the Northeast-Midwest Institute, International Joint Commission and the Great Lakes Fishery Commission. With input from this core group, a Technical Advisory Committee will be formed to ensure broad representation from the maritime, scientific/technical and policy/regulatory communities.