

Great Lakes Panel on Aquatic Nuisance Species Regional Panel Annual Report

*As prepared by Great Lakes Commission staff for the Period of July 1, 2004 to June 30, 2006
and submitted to the Aquatic Nuisance Species Task Force on December 20, 2006*

The Great Lakes Commission is an interstate compact agency serving the Great Lakes states and provinces and dedicated to the informed use, management and protection of the Great Lakes basin. The Commission is responsible for providing staff support to the Great Lakes Panel, as indicated under Section 1203 of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990. To advance the mission of the Panel, Commission staff provide specific support services, including preparation of an Annual Report on Panel accomplishments. The Annual Report and other administrative materials are submitted to the Executive Secretary of the Aquatic Nuisance Species Task Force.

Great Lakes Aquatic Nuisance Species Regional Panel Annual Report

Submitted to the Aquatic Nuisance Species Task Force for the period of July 1, 2004 to June 30, 2006

1. Summary

Enactment of the federal legislation, *Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990* (NANPCA), was a response to the growing threat posed by the introduction and spread of aquatic invasive species (AIS) in U.S. waters. A significant factor in shaping NANPCA was the invasion of zebra mussels and associated ecological and economic impacts, particularly those related to the manufacturing and power generating processes in the Great Lakes states. Through this legislation, Congress has recognized that mitigation of adverse AIS impacts is dependent upon well-coordinated outreach, research, monitoring, and prevention and control programs on a national, regional and state level.

The Great Lakes Panel was the first regional aquatic nuisance species (ANS) Panel to be established under NANPCA, with multijurisdictional representation from the geographic region of the Great Lakes states including Illinois, Indiana, Ohio, Michigan, Minnesota, New York, Pennsylvania and Wisconsin. Under Section 1203 of NANPCA, the Great Lakes Commission, a regional entity established in 1955 through the Great Lakes Basin Compact, was requested to convene and staff the Great Lakes Panel on Aquatic Nuisance Species. Since enactment of the Act in 1990, the Great Lakes Panel has worked to coordinate the prevention and control of aquatic invasive (nuisance) species in the Great Lakes on a regional basis.

Establishment of the Great Lakes Panel membership, as directed by NANPCA, created a permanent body of regional experts, including representatives from U.S. and Canadian governmental agencies, tribal authorities, scientific and policy research institutions, outreach programs, commercial and recreational user groups, and other stakeholders from both the public and private sectors. Membership of the Great Lakes Panel has been engaged on a collaborative basis since the early 1990's to advance AIS prevention and control on a regional basis. To address Great Lakes aquatic invasions, this multijurisdictional entity has been structured to contribute substantially to regional coordination and related programming in areas of information and education, research and management, and policy. Effective prevention and control efforts in the Great Lakes region continue to be the first line of defense in preventing the introduction and spread of aquatic invasive species not only in the Great Lakes but to other regions of the country as well (e.g., the Mississippi River watershed, Chesapeake Bay, Gulf of Mexico, among others). Although the Great Lakes Panel was established under federal legislation, the engagement and participation of Canadian counterparts as formal members on the Panel provide advice on and coordinate efforts to address AIS problems plaguing the binational resource of the Great Lakes.

The mission of the Great Lakes Panel is to advance regional coordination and related programming in areas of education, and information; research and management; and policy to prevent new Great Lakes aquatic invasions in the basin and control and mitigate those AIS populations already established. The Great Lakes Panel, with staff support from the Great Lakes Commission, pursues this mission guided by the following objectives (per Section 1203 of NANPCA as amended by NISA, pursuant to appropriations):

- Identify AIS priorities for the Great Lakes region
- Develop regional position statements on AIS priorities and 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 and private individuals, entities concerning AIS prevention and control
- Coordinate AIS program activities in the Great Lakes in areas related to information and education, research and management, and policy, and other areas not cited directly under the 1990 Act
- Provide a forum for interagency and inter-organizational communication and a mechanism for regional exchange of information regarding AIS issues

The focus areas of the Great Lakes Panel are driven by the Panel's Executive Committee (ExCom) and standing committees with committee support provided Great Lakes Commission staff. To guide the Great Lakes Panel in executing its mission, the ExCom was established and operational during this reporting period under the leadership of Roger Eberhardt, Michigan Department of Environmental Quality, who served as Chair from spring 2003 through fall 2005. The Panel's ExCom provides administrative and executive functions for the Panel and oversees the process of decision-making and the development and transmittal of recommendations. Members of the ExCom include the Panel Chair, Vice Chair, and Chairs of the Panel's three standing committees: Information and Education, Research Coordination, and Policy and Legislation Committee (committee name has recently been changed to Policy Coordination as of spring of 2006). The standing committees operate under the auspices of the Great Lakes Panel to accomplish the Panel's mission and to advance AIS priorities in discrete areas as identified by individual committee members, Panel discussion, and/or staff. During this reporting period, the Panel's ExCom was comprised of the following members:

Panel Officers:

Chair: Roger Eberhardt, Michigan Department of Environmental Quality

Vice chair: Marc Tuchman, U.S. Environmental Protection Agency, Great Lakes National Program Office

Panel Committee Chairs:

Information/Education: Emily Finnell, Michigan Department of Environmental Quality

Research Coordination: Phil Moy, Wisconsin Sea Grant

Policy and Legislation: Helen Brohl, U.S. Great Lakes Shipping Association

Also instituted as part of the Great Lakes Panel membership are six at large membership representatives elected by the Panel to serve for a two year term. The at-large membership allows for individuals to contribute to the mission of the Panel based on special expertise, interest, or advisory capability regarding AIS issues and /or priority. Generally speaking, the at-large members represent certain constituencies or areas of expertise that were not identified in the original list of Panel membership under the categories of interest when NANPCA was first passed. The intent of the at-large membership program is to ensure that there is balanced representation among all stakeholders involved in the AIS issue. The following at-large members served on the Great Lakes Panel during this reporting period.

At-large Members:

Allegra Cangelosi, Northeast-Midwest Institute

Ted Batterson, North Central Regional Aquaculture Center

Francine MacDonald, Ontario Federation of Anglers and Hunters

Helen Brohl, U.S. Great Lakes Shipping Association

Hugh MacIssac, Great Lakes Institute for Environmental Research

Richard Mueller, President of Northeast Technical Services

2. Major Accomplishments

Note that the following accomplishments and projects have been pursued in accordance with the legislative guidelines as stipulated in NANPCA listed above. The following broad categories have been assigned for each accomplishment indicating where efforts have been focused: Prevention (P), Detection and Monitoring (DM); Control and Management (CM), Education and Public Awareness (EPA), Research (R)

Meetings of the Great Lakes Panel (EPA)

The strength of the Great Lakes Panel comes from its diverse membership and Panel meetings which provide opportunities for communication, coordination and collaboration on AIS prevention and control issues on both a multijurisdictional and multidisciplinary level. The Panel meetings are structured with a combination of plenary sessions and breakout sessions to facilitate information exchange between members and also to provide opportunities for building partnerships between members. Panel committees are convened during each meeting to continue work on identifying AIS priorities and strategies for implementation. During this reporting period, formal Great Lakes Panel meetings were conducted April 14-15, 2005 and November 16-17, 2005 at the Courtyard Marriott in Ann Arbor, Mich., and May 9-10, 2006 at the U.S. EPA, Great Lakes National Program Office in Chicago, Ill. Meetings were also conducted throughout this 2 year period with staff support by the Panel's Executive Committee and standing committees both in person and through conference calls. Great Lakes Commission staff plays an instrumental role in setting the agenda for the Panel meetings, facilitating plenary and breakout sessions and documenting meeting proceedings.

April 14-15, 2005 Panel Meeting

The 2005 spring meeting of the Great Lakes Panel was held on April 14-15 in Ann Arbor, Mich. Meeting discussion covered a range of topics on regional ANS issues, featuring the Great Lakes Regional Collaboration's (GLRC) Aquatic Invasive Species (AIS) Strategy Team (further information is available online at: www.aistrategyteam.org/). Plenary presentations reported on progress of the five AIS strategy sub-teams: aquaculture, maritime commerce, canals and waterways, organisms in trade and recreational activities. During the Panel committee sessions, opportunity was provided for discussion on the role of the Great Lakes Panel regarding the AIS strategy of the Great Lakes Regional Collaboration. Other programmatic and project updates were provided on a number of ANS issues of regional and national significance, including progress toward passage of the National Aquatic Invasive Species Act (NAISA),; priorities of the national ANS Task Force; and the U.S. Coast Guard's standards for ballast water management. Other regional initiatives discussed at the meeting included a report from the state department on bilateral actions between the U.S. and Canada on AIS; aquaculture operations in the Great Lakes region; and a Sea Grant outreach project (*Habitattitude*TM) targeting the aquarium trade for AIS prevention and control.

November 16-17, 2005 Panel Meeting

The 2005 fall meeting of the Great Lakes Panel was held November 16-17 at the Courtyard Marriot in Ann Arbor, Mich. Agenda items included the Great Lakes Panel Organizational Strategy and Guidance document; presentations on AIS specific legislative activities including the ballast water management bill (S363) and new National Aquatic Invasive Species Act (NAISA) legislation (S770); a progress report and discussion on the updated Great Lakes Aquatic Invasions brochure; and next steps for the Great Lakes Regional Collaboration. Other AIS topics of national and regional significance included the U.S. Forest Service AIS program (Eastern Region); an update on the Chicago Sanitary Ship Canal; the International Joint Commission Great Lakes Water Quality Agreement Review; a taxonomic experts database; and discussion of the national AIS outreach programs

*Habitattitude*TM and *Stop Aquatic Hitchhikers!*, with particular emphasis on the Great Lakes Panel joining these national campaigns as formal member.

May 9-10, 2006 Panel Meeting

The 2006 spring meeting of the Great Lakes Panel was held May 9-10 at the U.S. EPA, Great Lakes National Program Office in Chicago, Ill. Noteworthy topics covered at the meeting included the Great Lakes Water Quality Agreement Review as related to Great Lakes aquatic invasions; Great Lakes Panel Operational Guidance document; updates on the Chicago Sanitary and Ship Canal dispersal barriers; the newly revised brochure on Great Lakes aquatic invasions; the status of state ballast water regulations in the basin; involvement of the city of Chicago on AIS issues; an early detection and monitoring pilot program initiated by the U.S. EPA; and federal AIS legislative updates. The following election results (conducted spring 2006) for the Panel officers and at large members were also announced at the meeting:

Panel Officers:

Chair: Mike Conlin, Director, Office of Resource Conservation, Illinois Department of Natural Resources

Vice chair: Jim Grazio, Great Lakes Biologist, Pennsylvania Department of Environmental Protection, Office of the Great Lakes and Coastal Resources

Panel Committee Chairs:

Policy Coordination: Jennifer Nalbene, Great Lakes United

Information/Education: Rochelle Sturtevant, NOAA, Great Lakes Environmental Research Lab

Research Coordination: Phil Moy, Wisconsin Sea Grant (returning committee chair)

At-large Members:

Allegra Cangelosi, Northeast-Midwest Institute

Ted Batterson, North Central Regional Aquaculture Center

Doris Bautch, U.S. Department of Transportation, Maritime Administration

John Andersen, The Nature Conservancy

Francine MacDonald, Ontario Federation of Anglers and Hunters

Michael Murrey, National Wildlife Federation

Further details on the Panel meetings covered in this report are available on the Panel website (www.glc.org/ans/panel.html#glpmeet) where meeting agendas, presentations, minutes and action items are posted.

Great Lakes Panel Committees

The three committees operating under the auspices of the Great Lakes Panel – Information/Education, Research Coordination, and Policy and Legislation Committee (currently called the Policy Coordination Committee) – convene formally during the Panel meetings as well as by email and conference calls between meetings. During this reporting period, the focus of the Information/Education Committee and Research Coordination Committee has been on the process of identifying AIS priorities in areas related to the respective committees. The outcome has been the development of a priorities document by each of these committees. The priorities presented in the documents of the Information/Education Committee and Research Coordination Committee will be utilized to provide guidance on AIS related

- project funding for use by government and private grant-making entities,
- project development for use public and private agencies/groups.

It is the intent of the Panel committees in the development of these documents to support work on AIS prevention and control based on consensus-based priorities.

Information/Education Committee (EPA)

The Information/Education (I/E) Committee, chaired by Emily Finnell of Michigan DEQ, Office of the Great Lakes, has focused in the following areas:

- coordinating I/E activities on AIS issues in the Great Lakes region;
- building of partnerships between the various stakeholders involved in AIS I/E efforts; and
- promoting the development and delivery of consistent messages regarding AIS prevention and control.

Under Finnell's leadership during this reporting period, the committee work emphasized the development of the priorities document, *Aquatic Invasive Species Information/Education Priorities in the Great Lakes* through in person meetings, conference calls and email correspondence. The document is structured in topical areas of prevention, collaboration/partnerships, information management, marketing, education and evaluation. Sources of information used in the development of the priorities document include the Great Lakes Panel's *Information and Education Strategy for Aquatic Nuisance Prevention and Control*, the *National Invasive Species Council Management Plan* and I/E Committee recommendations, among other resources. Work on the I/E priorities document also focused on integrating relevant elements of the *Great Lakes Regional Collaboration, AIS Strategy Team Action Plan*. A finalized draft of the document was presented and approved by the Great Lakes Panel in November with the final document submitted to the ANS Task Force in March 2006. The priorities document *Aquatic Invasive Species Information and Education Priorities for the Great Lakes 2006* as submitted to the ANS Task Force can be found online at: <http://www.glc.org/ans/panel.html#committees>.

Other work accomplished by the I/E Committee has involved providing comment on feature article topics and the development of two feature articles for the *ANS Update* (discussed below), as well as guidance on the development of a new Great Lakes Aquatic Invasions brochure (discussed below).

Research Coordination Committee (R, DM, P, CM)

The Research Coordination Committee, chaired by Phil Moy of Wisconsin Sea Grant, provides a forum to provide support in the following areas:

- continuing dialogue and action among the parties who conduct, manage, sponsor or apply Great Lakes related AIS research;
- enhancing inter-regional communication and coordination of AIS research; and
- developing, maintaining and disseminating an AIS research inventory database and associated policy recommendations on related research priorities.

Under the leadership of Phil Moy this past reporting period, the Panel's Coordination Committee revised/updated their document, *Aquatic Invasive Species Research Priorities for the Great Lakes – 2005*, which is available online at: <http://www.glc.org/ans/panel.html#committees>. The Committee also updated their research priorities species list, approved by the Panel at the 2005 November meeting. The research priorities document and the priority species list both reflect relevant elements of the *Great Lakes Regional Collaboration, AIS Strategy Team Action Plan* as appropriate. Work was accomplished by the committee through a series of conference calls and committee breakout discussions at both the April and November Panel meetings held in 2005.

Policy and Legislation Committee (currently called the Policy Coordination Committee) (*P, DM, CM, EPA, R*)
The Policy and Legislation Committee, chaired by Helen Brohl of U.S. Great Lakes Shipping Association, has focused in the following areas:

- orchestrating the development and dissemination of Great Lakes Panel policy positions on key AIS issues;
- exchanging information on critical AIS legislative and appropriations issues;
- promoting development and implementation of state AIS management plans; and
- coordinating the Panel's involvement in regional legislative and policy-related initiatives addressing AIS prevention and control.

The committee is striving to improve coordination of state actions on AIS issues on a regional basis and enhance interaction and coordination with other regional panels to strengthen prevention and control on a national scale. Efforts are also focused on increasing awareness in the region about national policy activities rendering regional/state implications. Under the guidance of Chair Helen Brohl, discussions were focused on the future direction of committee activities and mission. As a result of this discussion and with guidance from staff of the ANSTF, there was a decision in the spring of 2006 to change the name of the committee from Policy and Legislation to Policy Coordination to more accurately reflect the committee's mission.

Great Lakes Panel Initiatives

Great Lakes Panel Operational Guidance Document (EPA)

Considerable effort has been invested during this reporting period in developing the Great Lakes Panel's operational guidance document. The guidance document will serve in formalizing the conduct of the Great Lakes Panel, ultimately helping to strengthen the institutional capacity of the Panel as a multijurisdictional entity to advance AIS prevention and control programs on a regional basis. The document provides operational guidance in the following areas: mission statement; principles governing Panel operation; membership; roles and responsibilities of Panel officers; election process and eligibility for positions of Panel officers and at-large members; standing committees of the Panel; staff support; meetings; making recommendations to the national ANS Task Force; Panel funding; annual work plan; and annual reporting to Congress.

Great Lakes Commission staff have worked closely with the Panel ExCom in drafting the document with a preliminary draft presented for discussion at the April 2005 Panel meeting and available online at: http://www.glc.org/ans/pdf/05-04-11_opguidance.pdf. Comments were received as part of a review of the document during an in-person meeting of the ExCom at the April 2005 meeting, after which further revisions were made to the document. A second draft of the operational guidance was presented at the Panel's November 2005 meeting where significant input was provided by the Panel membership based on discussion during plenary and committee sessions, as well through written feedback following the meeting. Discussion of a final draft presented at the May 2006 Panel meeting indicated the need to make additional revisions to the document requiring further input from the ExCom. Staff is planning to prepare a second final draft after discussing outstanding issues with the ExCom. The document will be presented to the Panel at the fall 2006 meeting and, upon approval, will be submitted to the national ANS Task Force for their information.

ANS Update (EPA)

The *ANS Update* is a 2-page newsletter produced 2-3 times a year by Great Lakes Commission staff that has historically been used as a vehicle of the Great Lakes Panel to raise awareness and understanding of priority and/or emerging AIS issues. This publication provides brief updates on state/provincial, regional and federal agency AIS programs. Each issue of the *ANS Update* is inserted in the Great Lakes Commission's publication,

The Advisor, which is distributed on a wide-scale basis to a Great Lakes readership. Distribution is also directed to the Great Lakes Panel members and interested parties who are notified of each new issue and directed to the online posting at: <http://www.glc.org/ans/ansupdate>. Feature articles highlighted in the *Update* provide an effective means to raise awareness on emerging policy and scientific/technical developments in areas of interest on Great Lakes aquatic invasions. The following feature articles were published in the *ANS Update* during this reporting period:

- The spring 2005 issue (Vol. 11, No. 1) features the article, *U.S. Coast Guard Pushes Ahead for Ballast Water Solutions*, by Commander Kathy Moore, Chief, Environmental Standards Division, U.S. Coast Guard Headquarters; and Commander Michael Gardiner, Chief, Marine Safety Analysis and Policy Branch, Ninth Coast Guard District. In this feature article, the Coast Guard presented an update on their activities toward an effective ballast water management strategy to help provide background for legislative developments on the ballast water issue.
- The fall 2005 issue (Vol. 11, No. 2) features the article, *Regional Collaboration Offers Strategy for Curbing Aquatic Invasive Species*, by Ted Lawrence, Communications and Policy Associate, Great Lakes Fishery Commission (former Great Lakes Commission Sea Grant Fellow). The article briefly describes the Great Lakes Regional Collaboration (GLRC, refer to section below on GLRC), specifically describing the AIS Strategy Team, its charge and process used to develop the Strategy Team's Action Plan. The article also discusses the participation of members of the Great Lakes Panel in the development of the GLRC AIS Action Plan. It was the author's intent to capture the magnitude of this collaboration; a historic effort on the part of the region's stakeholders to accomplish, in a brief period of time, the objectives set forth by the U.S. Administration
- The spring 2006 issue (Vol. 12, No. 1) features Roger Eberhardt's (Michigan DEQ) article, *Michigan Acts to Close the Pathway to the State for Aquatic Invasive Species via Ship's Ballast Water*. The author outlines Michigan legislation, signed into law by Gov. Jennifer Granholm in 2005, requiring that all oceangoing vessels entering Michigan ports obtain a permit from the MDEQ. The legislation also authorizes MDEQ to take the lead in coordinating a Great Lakes Aquatic Nuisance Species Coalition involving representatives from all eight Great Lakes states.

Great Lakes Commission Projects

The following AIS related projects are being conducted under the auspices of the Great Lakes Commission and are presented below given their significance in advancing the AIS prevention and control on a regional basis as closely aligned with the goals and objectives of the Great Lakes Panel. It is also noteworthy that Great Lakes Panel membership has played a significant role in identifying the need for these projects as well as guidance for project development and review of products/outcomes.

Great Lakes Regional Collaboration: AIS Strategy Team Action Plan (P, DM, CM, EPA, R)

The Great Lakes Regional Collaboration (GLRC), signed as an Executive Order in May 2004 and convened in December 2004, is a wide-ranging, cooperative effort to design and implement a strategy for the restoration, protection and sustainable use of the Great Lakes. Aquatic invasive species were recognized by the GLRC as one of eight priority environmental issues threatening the health of the Great Lakes ecosystem. To address Great Lakes aquatic invasions, an AIS Strategy Team was established under the auspices of the GLRC led by agency representatives from the U.S. Fish and Wildlife Service, Great Lakes Fishery Commission and Michigan

Department of Environmental Quality, Office of the Great Lakes. The team developed a set of recommended near-term actions to stop AIS introduction and spread in the Great Lakes basin as part of a comprehensive AIS Action Plan (<http://www.glerc.us/documents/AIS-Appendix.pdf>). The action plan is based on policy positions developed by the AIS Strategy Team regarding the following primary vectors of AIS introduction: aquaculture; canals and waterways; recreational activities, organisms in trade, and maritime commerce. Noteworthy is the high level of participation in the development of the action plan from representatives serving as members of the Great Lakes Panel as well as staff support provided by the Great Lakes Commission. As discussed previously in this report, Commission staff worked with members of the Panel in the development of a feature article for the *ANS Update* to help raise awareness and understanding for the GLRC-AIS Action Plan (<http://www.glc.org/ans/ansupdate/> with an extended version at <http://www.glc.org/ans/pubs.html>).

The AIS Action Plan was integrated with similar action plans addressing the other priority GLRC environmental issues. The final document, *Great Lakes Regional Collaboration Strategy to Restore and Protect the Great Lakes*, was presented to the U.S. Administration December 12, 2005 (<http://www.glerc.us/strategy.html>). The outcomes of the GLRC are expected to play a significant role in the future direction of the Great Lakes Commission and the Great Lakes Panel regarding regional action on AIS prevention and control.

Great Lakes Aquatic Invasions Booklet (EPA)

Great Lakes Commission staff has invested considerable effort in working with the Great Lakes Panel during this reporting period in the development of a new publication in a booklet format entitled *Great Lakes Aquatic Invasions*. The project is funded primarily by the U.S. Environmental Protection Agency, Great Lakes National Program Office with supplemental support from U.S. Department of Agriculture – Forest Service Eastern Region. With the ultimate goal of raising awareness on the severity of AIS issues among policy and decision makers, the booklet will provide a general assessment of AIS problems in the Great Lakes and the related programs and legislative developments to address these problems. To illustrate both challenges and success stories, the publication presents a timeline of AIS introductions and policy developments; AIS vectors and related case studies; future directions of AIS management in the Great Lakes, model strategies prevention and control with a focus on interrupting the pathways of AIS introduction and spread; and AIS websites posting further information. This educational tool has been designed to target state and federal legislators as well as other Great Lakes recreational and commercial user groups.

Commission staff has worked on developing the content, graphics and layout for the brochure with guidance provided by a project advisory team (PAT) comprised primarily of Panel members and other AIS stakeholders in the region. Opportunities for comment and input on each phase of development of the brochure were provided to those members of the Great Lakes community with vested interests regarding AIS issues. A final draft has been circulated this fall (Sept. 2006), initially to the PAT, which will be followed by an opportunity for final review by the Panel members. A final version of the brochure is expected to be published early next year (2007) and circulated to the Great Lakes Panel membership and other stakeholder groups as identified by a dissemination strategy.

State Management Planning for Aquatic Invasive Species Prevention and Control (P, CM)

The project, *A Collaborative Approach to Advance Implementation of State Management Plans for Prevention and Control of AIS in the Great Lakes Region*, has provided an opportunity in the Great Lakes region to advance on the state management planning (SMP) process. The project is funded primarily by the National Oceanic Atmospheric Administration National Sea Grant Program. Through a series of state-specific workshops, this project is designed to facilitate collaboration between the Great Lakes Commission staff and representatives from

the Sea Grant programs and natural resource agencies in the Great Lakes states in an effort to advance the development and implementation of Aquatic Invasive Species (AIS) State Management Plans (SMPs). During the course of this project, Commission staff have encouraged the Great Lakes states to look beyond their jurisdictional boundaries and consider the importance of regional perspectives on state management planning for AIS prevention and control. Significant progress has been accomplished on the project during this reporting period with state-specific SMP workshops successfully conducted in Wisconsin, Minnesota and Pennsylvania during the fall of 2005 and Michigan in the fall of 2006. Considerable progress has been made in planning Indiana's workshop, planned for January of 2006. The state-specific workshops are proving to be a valuable forum in our quest to advance the AIS prevention and control in the Great Lakes and inland waters through the state management planning process. Staff will be working with the states on a regional summit, planned for the spring of 2007, serving as a culminating activity to showcase lessons learned from the state SMP workshops and other related project activities. Further details on the outcomes of the SMP project, including workshop agendas, presentations and summaries will be posted on the project website (<http://glc.org/ans/initiatives.html#advance>). The outcomes of this systematic approach to state management planning on a regional basis will be presented to the ANS Task Force.

Rapid Response Planning for Great Lakes Aquatic Invasions (DM, CM, R, EPA)

Recognizing the need for rapid response planning on a regional basis, the Great Lakes Commission is leading a long-term project, *Rapid Response Plan for Great Lakes Aquatic Invasions* with funding from the U.S. Environmental Protection Agency, Great Lakes National Program Office (GLNPO). The primary goal of this project, initiated in 2003, has been to work with the Great Lakes Panel and other regional stakeholders in developing a set of integrated tools as the basis for a model rapid response plan, specifically addressing Great Lakes aquatic invasions. The model plan, based on consensus building among the Great Lakes jurisdictions, is being offered as guidance to federal and state entities responsible for responding to aquatic invasions on a regional basis. The driving force in the development of the model rapid response plan is to provide the Great Lakes-St. Lawrence region with increased capacity to anticipate, prevent and respond to AIS invasions within a timeframe that will maximize the effectiveness of management actions. The primary product of this project, *Model Rapid Response Plan for Great Lakes Aquatic Invasions* (<http://glc.org/ans/initiatives.html#rapid>), has been developed by Great Lakes Commission project staff with oversight from a regionally based Rapid Response Project Advisory Team. A final draft of the model rapid response plan was completed in April 2004 and provides the depth and detail needed to guide planning for a species-specific response to new AIS invasions with enough flexibility for application to various jurisdictional scenarios.

To test the functionality of the model rapid response plan, the scope of this project has included application of a case study scenario for a specific aquatic invasive species identified as a high priority concern in the state of Michigan. In so doing, the case study has been developed to evaluate which aspects of the plan are effective and which parts need further refinement. Additionally, the case study scenario has been designed to test the model's adaptability to a state-specific setting while still maintaining applicability on a Great Lakes-St Lawrence regional basis. The species selected for the rapid response case study is hydrilla (*Hydrilla verticillata*), a nonindigenous invasive plant, identified by the state of Michigan Aquatic Nuisance Species (ANS) Council as a potential invader of Michigan waters. Although hydrilla is not yet known to be in Michigan waters, the Michigan ANS Council determined that development and implementation of a rapid response plan for hydrilla holds practical management implications for this particular aquatic invasive species and could also serve as the basis for response to other potential AIS infestations.

Michigan's Hydrilla Task Force was established to develop a rapid response plan in the event of hydrilla infestations. This state-based task force has joined forces with the Great Lakes Commission in the development of a hydrilla rapid response plan to protect Michigan waters. The plan will also serve as a viable case study for the *Model Rapid Response Plan for Great Lakes Aquatic Invasions* to ultimately protect other waters in the other Great Lakes states from hydrilla infestations. Great Lakes Commission project staff participated on the Hydrilla Task Force, whereby the regional rapid response model plan was offered as a template for application in developing the hydrilla rapid response plan. To provide further guidance in the development of the hydrilla rapid response plan, staff conducted the workshop, *A Rapid Response Plan for Great Lakes Aquatic Invasions - Species Specific Case Study*, held in July 2004 at the Great Lakes Commission office in Ann Arbor, Mich. Participants from around the region attended the workshop in person while others participated via internet conferencing from remote locations. The primary objective of the second workshop was to apply the model rapid response plan to the species-specific case study on hydrilla (*Hydrilla verticillata*). The workshop also explored how rapid response planning should be implemented for different jurisdictional scenarios in the event of a hydrilla infestation.

This collaboration between a state agency and the Great Lakes Commission has proven to be a productive partnership that has been beneficial for refinement of the generic model rapid response plan and development of the species-specific rapid response plan to address the risks of hydrilla invasions into Michigan waters. Michigan's Department of Environmental Quality is currently in the process of "ground truthing" the response process laid out in the case study based on potential hydrilla infestations that have prompted rapid response action. Development of the hydrilla rapid response plan is still in process and will be modified to incorporate lessons learned during the testing phase, as well as new laws and regulations classifying hydrilla as a prohibited species. Upon completion, the species-specific plan, *Rapid Response to New Aquatic Invasive Species in Michigan Hydrilla verticillata: A Case Study*, will be made available as prepared by the Michigan's Hydrilla Task Force operating under the auspices of the state Aquatic Nuisance Species Council. Very importantly, the lessons learned from the hydrilla case study will be used to finalize the *Rapid Response Plan for Great Lakes Aquatic Invasions*.

3. Recommendations to ANSTF

The following recommendations have been identified as high funding priorities based on Panel discussion of the priorities documents developed by the Panel's Information/Education Committee and Research Coordination Committee (discussed above). The complete priorities document developed by each of these committees is available on the Panel's website at: <http://www.glc.org/ans/panel.html#committees>.

Information/Education Committee

The priority recommendation based on the Committee's document, *Aquatic Invasive Species Information/Education Priorities for the Great Lakes*, is as follows:

Develop a web-based clearinghouse for aquatic invasive species (AIS) Great Lakes outreach programs including program information; formal/informal education and training opportunities and resources; publications. Projects should compliment, not duplicate existing AIS research databases, integrate maintenance, measurable objectives and evaluation, and identify programming gaps relative to the I/E priorities of the Great Lakes Panel.

Research Coordination

The priority recommendation from the Committee's document, *Aquatic Invasive Species Research for the Great Lakes*, is as follows:

Research to analyze and forecast potential changes in ballast water sources and AIS risk to the Great Lakes based on projected trends in global trade patterns over the next 20 years; research to profile and characterize the aquatic organisms-in-trade pathways to the Great Lakes; and research to assess the risks associated with specific organisms-in-trade identifying high-risk species.

State Management Planning on AIS Prevention and Control

The Great Lakes Commission, advocating on behalf of the Great Lakes Panel, strongly recommends full funding for the state management plans for AIS prevention and control in the Great Lakes region. The SMP project (discussed above) led by the Great Lakes Commission in collaboration with the Great Lakes state agencies and Sea Grant programs is in the process of identifying priority recommendations for SMP's through state-specific workshops. These recommendations will be made available to the ANS Task Force in the spring of 2007 as presented in a regional summit. It is critically important that the members of the ANS Task Force keep apprised of the status of priorities and funding needs of the SMPs on a state-specific and regional basis to continue efforts to appropriate adequate funding and in-kind support for the implementation of the AIS state management plans.