

**Great Lakes Panel on Aquatic Nuisance Species**  
**Meeting Minutes: Draft**  
**April 26-27, 2004**  
**Ann Arbor, Michigan**

*Note: The enclosed meeting minutes are available online at [www.glc.org/ans/initiatives/](http://www.glc.org/ans/initiatives/). Included as attachments to this document are meeting action items (**Attachment A**), the agenda for the Panel meeting (**Attachment B**) and associated participant list (**Attachment C**).*

Day 1: April 26, 2004 .....	2
Welcome, Introductions and Agenda Review .....	2
Regional/Federal Progress Reports.....	2
1) Great Lakes Panel on Aquatic Nuisance Species .....	2
2) Federal Updates: U.S. and Canadian .....	4
Day 2: April 27, 2004 .....	8
Committee Reports including Priorities Document Updates .....	8
1) Great Lakes Panel Operations .....	8
2) Great Lakes Panel Committee Reports.....	9
A) Information/Education Committee .....	9
i. Revision of the Biological Invasions Brochure .....	9
ii. I/E Priorities Document.....	11
iii. Topics for the <i>ANS Update</i> .....	11
iv. Renaming the Great Lakes Panel.....	11
B) Research Coordination Committee .....	11
i. Priorities Document.....	12
ii. Miscellaneous Discussion.....	12
C) Policy and Legislation Committee.....	12
i. Priorities document.....	12
ii. AIS Legislation.....	13
iii. International Marine Organization (IMO) Ballast Convention .....	13
iv. Policy and Legislation Goals for Panel.....	14
x. Proposed statement for full Committee .....	15
3) Regional ANS Initiatives.....	15
4) Rapid Response Project: Great Lakes Commission Progress Report.....	22
5) Panel Business and Member Updates.....	24

## **Day 1: April 26, 2004**

### **Welcome, Introductions and Agenda Review**

Michael Donahue of the Great Lakes Commission welcomed members and interested parties to the spring meeting of the Great Lakes Panel on Aquatic Nuisance Species, with a special welcome to the domestic and international guests present for the *Baltic Sea – Great Lakes Workshop on Aquatic Invasive Species*, being held in conjunction with the Great Lakes Panel meeting. Roger Eberhardt, Michigan Department of Environmental Quality (DEQ), was then introduced as the Chair of the Great Lakes Panel on Aquatic Nuisance Species. Meeting participants were asked to introduce themselves and then Kathe Glassner-Shwayder (Great Lakes Commission) provided an overview of the Great Lakes Panel meeting agenda.

### **Regional/Federal Progress Reports**

#### **1) Great Lakes Panel on Aquatic Nuisance Species**

##### ***Introductions, Kathe Glassner-Shwayder, Great Lakes Commission***

Glassner-Shwayder began by reviewing the Panel officers and gave thanks to the Panel Chair, Roger Eberhardt, and Vice-Chair, Mark Tuchman (U.S. EPA, Great Lakes National Program Office) for their continuing contributions to the Panel. Committee chairs were introduced, including Emily Finnell (Michigan DEQ), Chair of the Information/Education Committee; Phil Moy (Wisconsin Sea Grant), Chair of the Research Coordination Committee; and Helen Brohl (United States, Great Lakes Shipping Association), Chair of the Policy and Legislation Committee.

Glassner-Shwayder also welcomed two new at-large members to the Great Lakes Panel, Dr. Hugh MacIsaac of the Great Lakes Institute for Environmental Research at the University of Windsor, and Dr. Ted Batterson of Michigan State University's North Central Regional Aquaculture Center.

MacIsaac reported that his laboratory focuses on identifying vectors and pathways that bring invasive species into the Great Lakes, as well as a number of studies that allow these species to spread from the Great Lakes to inland lakes. Most of their work focuses on the potential importance of NOBOB ships and whether they could transport species into the Great Lakes. Another complementary project is ongoing with colleagues in Michigan and Virginia, looking at NOBOB shipping into the Chesapeake Bay and whether there is a problem in that region.

Batterson discussed his professional background involving aquatic macrophytes and aquaculture, and his work on hydrilla in Florida for many years, which is of current interest within the Great Lakes region. Since 1988, Batterson has been working on the problems associated with the escapement of species from aquaculture operations and the private sector and their impacts on the environment. For example, attention is being focused on how to deal the upstream migration of the Asian carp from southern reaches of the Mississippi as escapees from operations outside of the Great Lakes basin. Batterson brings a perspective of aquaculture as well as his expertise on aquatic plants to the Panel.

***Panel Membership Update, Kathe Glassner-Shwayder***

Changes for the Great Lakes Panel membership include the addition of Dennis Wright (Fisheries and Oceans Canada), as a federal member of the panel. Tom Flatt (Indiana Department of Natural Resources) has replaced Gwen White as the state representative for Indiana. And Jim Grazio (Pennsylvania Department of Environmental Protection) will also be serving as a representative for the state of Pennsylvania.

***Committee Support Update, Kathe Glassner-Shwayder***

The Research Coordination Committee has finalized their priorities document, which has been circulated via email and is now ready for panel approval. The Information/Education Committee has developed a second draft of the priorities document through conference calls. The first draft of the priorities document for the Policy and Legislation Committee has been prepared by staff and will be reviewed during the committee meeting.

***Staff Participation at ANS Meetings, Kathe Glassner-Shwayder***

Glassner-Shwayder attended the ANS Task Force meeting in Fairfax, Virginia, in November 2003. Glassner-Shwayder reported that Timothy Keeney participated as the NOAA Co-Chair and Mamie Parker as the U.S. Fish and Wildlife Service Co-Chair. The Executive Secretary for the ANS Task Force, Sharon Gross, has left the U.S. Fish and Wildlife Service to continue work on aquatic invasive species with the U.S. Geological Survey in Reston, Virginia. The position of Executive Secretary has not yet been filled.

During the second day of the ANS Task Force Meeting in Fairfax, there was a meeting of the regional panels to establish consistency regarding standard operating procedures among these panels; coordination between panels, committees and working groups; rapid response planning; funding mechanisms for general operating for panels; and the forum for ANS Task Force meetings.

The next ANS Task Force meeting will take place in Missouri in May 2004, and will be attended by Roger Eberhardt. This meeting will be held in conjunction with the Mississippi River Basin Panel. Eberhardt would like to encourage the national ANS Task Force to meet with the Great Lakes Panel at some point in the future.

**Action Item:**

- **Staff is requested to look for opportunities to convene an upcoming meeting of the Great Lakes Panel in conjunction with the national ANS Task Force.**

***Current Regional AIS Projects, Kathe Glassner-Shwayder***

Great Lakes Commission staff is currently participating in the development of a *Model Rapid Response Plan for Great Lakes Aquatic Invasions*. The second iteration of this plan has been prepared by staff for review and will be discussed in greater detail on day two of the Panel meeting. Considerable progress has been made on the NIS (Nonindigenous aquatic Invasive Species) Early Detection and Monitoring guidance as a pilot project within the Lake Michigan basin. Work is being conducted on the Model GIS Assessment of Nonindigenous Aquatic Invasive Species in Michigan waters as well. Additionally, a new version of the *Biological Invasions* brochure will be started in the near future.

***Future Activities, Kathe Glassner-Shwayder***

Upcoming project workshops include, *Rapid Response Plan for Great Lakes Aquatic Invasions: Species-Specific Case Study* (June 7, 2004); and *AIS Early Detection and Monitoring: A Pilot Project for the Lake Michigan Basin* (June 8, 2004). Both of these workshops will take place at the Lake Michigan Center at Grand Valley State University in Muskegon, Michigan.

***ANS Update, Kathe Glassner-Shwayder***

The winter 2004 issue of *ANS Update* focused mainly on monitoring, featuring the article, *Keeping Track of Aquatic Invasive Species in the Great Lakes*, authored by Michael Goehle, Fishery Biologist of the U.S. Fish and Wildlife Service. The fall 2003 issue featured an article from Mark Burrows of the International Joint Commission's Great Lakes Regional Office, on the Great Lakes – St. Lawrence Research Inventory. The next *ANS Update* will likely focus on the international ballast water convention of the International Maritime Organization (IMO) held in February 2004.

***GLC/GLP Website Update, Kevin Walters, Great Lakes Commission***

Walters provided the meeting participants with an overview of changes to the updated websites for the Great Lakes Commission ([www.glc.org/ans](http://www.glc.org/ans)) and Great Lakes Panel ([www.glc.org/ans/panel.html](http://www.glc.org/ans/panel.html)). Specific changes include new layouts and designs for the pages, an initiatives page, a new ANS links page, an updated panel membership page, and a new publications page. The Great Lakes Panel website also includes new information on the Great Lakes Panel and meeting information as well as links to current and back issues of the *ANS Update* newsletter.

**Action Items:**

- **Panel members are requested to review their membership information listed on the recently revised Panel membership webpage ([www.glc.org/about/taskforce/glpanel.html](http://www.glc.org/about/taskforce/glpanel.html)) and contact Kathe Glassner-Shwayder ([shwayder@glc.org](mailto:shwayder@glc.org)) with any corrections/revisions.**
- **Action Item: Panel members and other interested parties are requested to submit links relevant to ANS issues to Glassner-Shwayder ([shwayder@glc.org](mailto:shwayder@glc.org)) for listing on the Great Lakes Commission's webpage, "Other Useful ANS Links" ([www.glc.org/ans/links.html](http://www.glc.org/ans/links.html)).**

***Other Staff Updates, Kathe Glassner-Shwayder***

Glassner-Shwayder informed the meeting participants of Sarah Whitney's departure from the Great Lakes Commission after a three-month transition period, and expressed gratitude for her valuable contribution to the Great Lakes Panel over the past three of years.

At this time copies of the draft regional *Model Rapid Response Plan for Great Lakes Aquatic Invasions* were distributed to all meeting participants for review. Additional discussion of the plan will occur during Day 2 of the Great Lakes Panel meeting.

**2) Federal Updates: U.S. and Canadian**

***National ANS Task Force, Timothy Keeney, NOAA Co-Chair, ANS Task Force, Deputy Assistant Secretary of Commerce for Oceans and Atmosphere***

Keeney discussed some of the recent decisions made by the national ANS Task Force, including the addition of the U.S. Geological Survey and Smithsonian Environmental Research Center to the Task Force. Both entities participate in invasive species work and have participated in the U.S. Office of

Management of Budget (OMB) cross-cut budget exercise in which agencies can share goals, objectives, and performance measures to gain the high-level attention and funding resources that are critical for such work. The Task Force has also been working to develop a common federal position among the federal members of the Task Force on legislation that has been introduced related to the National Invasive Species Act. The next meeting of the Task Force will take place in Columbia, Missouri in May 2004. As Co-Chair of the Task Force and as the Department of Commerce representative for the National Invasive Species Council, Keeney has been able to act as a spokesperson and advocate for invasive species issues.

Keeney recognized the Great Lakes Regional Panel as a model for other regional panels and has demonstrated that cooperation and coordination among federal agencies, federal and state agencies, regional governments, and other stakeholders are essential. Keeney also mentioned that in some instances the Great Lakes Regional Panel has been ahead of the national ANS Task Force in identifying problems and taking action. For example, the Great Lakes Panel developed a model state management plan, which the Task Force then used to develop national guidance for the states. The Great Lakes Panel has also developed a model state law recognizing that the differences in state laws can impact regional success. And in 1997, the panel pointed out that a majority of research funding was going toward control activities and much more attention needed to be given to prevention. This has helped the Task Force to balance funding needs. Keeney also thanked the Great Lakes Panel for being responsive to Task Force requests and for taking the charge to work on a regional rapid response contingency plan.

*National Aquatic Invasive Species Act (NAISA)*, Jonathon Champion, Northeast Midwest Institute Champion focused his remarks on the legislative process surrounding the existing bills related to NAISA and discussed the progress and status of S. 525 in the Senate and H.R. 1080 and H.R. 1081 in the House of Representatives. The Senate NAISA bill (S. 525) is currently under the jurisdiction of the Environment and Public Works Committee. However, with the previous two iterations of the legislation there has been a courtesy referral to the Commerce Committee to comment on the shipping vector and ballast water provisions of the bill. It appears that a similar arrangement will likely occur during the current session.

On the House side, the legislation was divided into two bills – one focusing on the management provisions (H.R. 1080) and the other on the science and research provisions (H.R. 1081). H.R. 1080 is currently split under the jurisdiction of the Resources Committee and the Transportation and Infrastructure Committee. H.R. 1081 is under the primary jurisdiction of the Science Committee with referrals to the Resources, Transportation and Infrastructure, and House Administration committees. The Science Committee held hearings and markups on H.R. 1081 during the summer of 2003 and the bill was put out of committee in June. The other committees have discharged the legislation, which means the bill has been reported out without any hearing or markups being completed. H.R. 1081 is currently awaiting a vote.

In March 2004, two subcommittees within the Transportation and Infrastructure Committee held a joint hearing on H.R. 1080 specifically related to ballast water issues and looking at the new IMO ballast water management convention and reauthorization of NISA. A majority of the witnesses spoke favorably of the bill and of NAISA. Their goal is to move the bill out of committee this session; however, it is likely the bill may only focus on shipping and ballast water issues. The House

Resources Committee has only held oversight hearings related to the bill and does not have any planned future activities.

Within the Senate, the Environment and Public Works Committee has communicated that they intend on moving S. 525 through hearings and markups and would like to report the bill out of committee this session. Due to jurisdictional issues related to the ballast water portions of the bill and positions of the other committees, it is not clear how comprehensive this legislation may be.

To keep NAISA moving, the need was expressed to broaden the base of support for passage of the legislation. For instance, outreach efforts should be extended beyond environmental groups to the conservation sector. State support is also considered critical for passage of the bill. Concern was also expressed that all interested parties keep actively involved to ensure that the bill is something that we can live with in terms of protection of the Great Lakes. There is concern over the possibility that in final passage the legislation could be “guttled,” resulting in a bill addressing only the ballast water issue.

The Northeast-Midwest Institute, Great Lakes Fishery Commission, and International Joint Commission are working to broaden the coalition of support behind these bills. Interested stakeholders should remain engaged to push for comprehensive legislation.

***U.S. Coast Guard’s Ballast Water Management***, Michael Gardiner, U.S. Coast Guard  
Gardiner discussed the objectives of the U.S. delegation to the IMO convention. According to Gardiner, the ballast water discharge standard that was adopted at the conference was not as stringent as that proposed by the U.S. delegation. However, the delegation felt that the adopted standard still exceeds the capability of current technology, and it is believed that when met, it will reduce the number of invasions by ballast water. The next step, domestically, is that the Executive Branch interagency process will determine how to proceed with ratification of the treaty. Some organizations, such as Great Lakes United and others are already recommending ratification of the treaty.

In January, the Coast Guard launched the Shipboard Technology Evaluation Program (STEP) to facilitate the development of ballast water treatment technologies on vessels; approval of technology will be vessel-specific. An independent panel will evaluate applications for the installation of treatment technology. This federal regulation was initially the Coast Guard’s approach to experimental technology development, however, it was determined that the existing statute already provided authority for these efforts. A description of the program is available on the Coast Guard’s ballast water website which is also linked to the Great Lakes Panel ANS website.

Two other regulation packages that are still under active consideration include a rule to put penalty provisions into place for not reporting ballast water management and another rule that makes the current voluntary program for ballast water management, outside of the Great Lakes region, into a mandatory program. These will both likely be in their final stages by the next Panel meeting. The regulatory program to create a ballast water discharge standard is still in the environmental impact review process and is ongoing.

***Canadian Status Report, Dennis G. Wright, Fisheries and Oceans Canada***

Wright discussed the Agreement on Inter-jurisdictional Cooperation with respect to Fisheries and Aquaculture, signed in 1999, which created the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM). The Council of Ministers (responsible for forests, fisheries, and aquaculture, endangered species and wildlife, including the CCFAM) was formed in 2000 and is responsible for the implementation of the Canadian Biodiversity Strategy (CBS). Unintentional introductions of invasive alien species are a priority area for the CBS implementation by the Council of Ministers. Concern over this issue has led to the development of a National Invasive Alien Species (IAS) Strategy. The national strategy focuses on making strategic shifts and investments to enhance the capacity to prevent the entry of IAS into Canada, such as focusing on prevention and pathways of entry. National action plans for addressing pathways/vectors and indicating commitments to implementation are expected to be complete in September 2005. The CCFAM Aquatic Invasive Species Task Group (AISTG) is developing the action plan for aquatic invasive species. The draft framework for this plan was approved in 2003. Entitled *Proposal for a National Action Plan to Address the Threat of Aquatic Invasive Species*, the plan is seen as a key area for cooperative action by governments and stakeholders. It is currently under evaluation to determine if the important issues have been targeted.

The AISTG developed seven pathway documents that focus on priorities, including shipping, recreational and commercial boating, aquarium and water garden trade, live food fish trade, use of live bait, unauthorized introductions, and canals and water diversions. Expert input was sought on pathway analysis through January 2004. A proposed strategic management framework reflects the management tools available to governments, in cooperation with stakeholders, for addressing threats from aquatic invasive species. Implementation activities include legislation, regulation and enforcement; risk management (early detection, rapid response, eradication, and control); stewardship, education, and awareness; and science (surveillance, monitoring, and research).

***International Association of Fish and Wildlife Agencies: Improving State Capacity to Communicate on ANS Issues (Regional ANS Initiative), Mike Hoff, U.S. Fish and Wildlife Service***  
Hoff provided updates on two committees of the national Aquatic Nuisance Species Task Force (ANSTF) and the opportunities these committees have created to enhance coordination among various players throughout the country regarding invasive species.

Since the last Panel meeting in November 2003, there has been a leadership transition within the U.S. Fish and Wildlife Service (U.S. FWS) Branch of Invasive Species, which staffs the ANSTF. The new Branch Chief is Kari Duncan, a 14-year veteran of the U.S. FWS. The acting ANSTF Executive Secretary is currently the Acting Deputy Assistant Director of U.S.FWS Fisheries and Habitat Conservation Program and permanent Division Chief of Environmental Quality, Everett Wilson.

Two years ago the ANSTF developed a strategic plan to energize and establish more concrete future direction for activities delineated in the plan. To make the strategic plan operational, annual work guidance is being developed to direct the ANSTF and its member organizations. Currently the Prevention Committee was established jointly between the National Invasive Species Council (NISC) and the ANSTF to avoid duplication of work and to leverage expertise in this focus area. The ANSTF Communications, Education, and Outreach (CEO) Committee has been involved with several different campaigns, including the *Stop Aquatic Hitchhikers! Campaign*, the *Economic*

*Impact Report*, and the new *Aquarium Hobbyist Campaign*. The CEO committee has also played a role in the International Association of Fish and Wildlife Agencies (IAFWA) grant to help states and the international community communicate more effectively regarding invasive species issues.

***National AIS Screening Process, Tom Flatt, Indiana DNR***

Flatt provided an update of the last Mississippi Interstate Cooperative Resource Association (MICRA) executive board meeting; a group of 28 state and federal resource agencies. MICRA has been dealing with invasive species issues as a priority of the group; working to get the black carp listed as an injurious species under the Lacey Act; as well as supporting listings of the silver and bighead carp. Discussions at the last meeting revolved around the Asian carp, which were permitted into the United States by the U.S. FWS for use by the aquaculture industry. Since introduced to the United States, escape of Asian carp has occurred from confined areas, particularly during periods of high precipitation. Screening for carp is considered inadequate by many interested parties, as it appears to be driven more by political and commercial interests with less concern for environmental impacts. Efforts have been made by MICRA to elevate the importance of the screening process already listed in the NISA proposal and focus on it as a separate issue. MICRA is proposing implementation of a national screening process for invasive species. These discussions helped to raise awareness on the issue at the last meeting; the U.S. FWS, however, has yet to enact laws needed for a more rigorous screening process.

**Day 2: April 27, 2004**

***Approval of Panel meeting minutes (July 2003), Kathe Glassner-Shwayder***

Glassner-Shwayder opened the second day of the meeting with a short discussion of the minutes from November's Great Lakes Panel meeting. Several panel members have already submitted comments to Great Lakes Commission staff, which will be incorporated as soon as possible. With no additional comments raised, Glassner-Shwayder announced that the revised minutes will be posted on the ANS initiatives page on the Great Lakes Panel website as approved.

**Committee Reports including Priorities Document Updates**

**1) Great Lakes Panel Operations**

***Great Lakes Panel Operations, Tom Crane***

For the benefit of the new Panel members and the distinguished guests at the meeting, Crane provided the group with an overview of the background, organization, and goals of the Panel. The Panel was created in the early 1990s, and works with a standing committee structure: Information/Education Committee, Research Coordination Committee, and Policy and Legislation Committee. These groups, convened at each meeting, are charged with setting a modest work plan for the Panel each year. The Great Lakes Panel has typically used these committees to establish regional priorities, providing guidance for the Panel's communications with federal and state agencies and broader communities at large within these three areas. It is the goal of the Great Lakes Commission in staffing the Great Lakes Panel to focus on some discrete activities that can be presented as guidance to different agencies and organizations. These activities may be further developed into funding proposals by the Panel and/or Great Lakes Commission, or developed into

opportunities for other researchers to submit through a peer review process. This can serve as a valuable opportunity to bring regional entities together to focus on our regional agenda outlined by the three committees.

Crane mentioned that at the last meeting, Gwen White, former state representative from Indiana currently working with D.J. Case and Associates, facilitated a discussion on future directions for the Panel. The focus of discussion was on operational and administrative aspects of the Panel and the need to further develop regional AIS priorities. This discussion was prompted by a change in leadership and membership within the Panel, and in recognition of the role held by the regional ANS Panels in advising the national ANS Task Force in shaping the national agenda on aquatic invasive species. It was noted that 10 years ago, the Great Lakes Panel was the only regional panel formerly established for ANS prevention and control. Since then, several other regional ANS panels have been established. The Great Lakes Panel is interested in looking for ways to collaborate more closely with other regional panels on AIS prevention and control.

Crane also commented on the limited operating funds provided by the U.S. FWS to the increasing numbers of regional panels, resulting in a significant reduction in funding over this past year for the Great Lakes Panel. The Panel membership was informed that for the coming year, the Panel will be operating at level funding, thus affecting the level of staff support that the Great Lakes Commission can provide to the Great Lakes Panel.

In sharing these thoughts, Crane encouraged the membership of the Great Lakes Panel to become more actively involved in establishing regional priorities on Great Lakes AIS issues, as it will be important in how the Panel moves forward as a regional entity. These priorities may also serve as guidance to member agencies or organizations that may know how to pursue some of these important priorities individually. With this brief background of current issues relevant to Panel operation, Crane then invited representatives from each committee to share their reports from the committee meetings as conducted on Day 1 of the Great Lakes Panel meeting.

## **2) Panel Committee Reports**

### **A) Information/Education Committee**

Attendees: Emily Finnell (Chair, MI DEQ), Kathe Glassner-Shwayder (staff, GLC), Kristen TePas (IL-IN Sea Grant), Rochelle Sturtevant (Great Lakes Sea Grant Network), Carol Swinehart (Michigan Sea Grant), Michael Goehle (USFWS), Christine Ali (ON MNR), Francine MacDonald (Ontario Federal of Anglers and Hunters), Sharri Currey, (PA Sea Grant).

#### **i. Revision of the Biological Invasions Brochure**

Kathe Glassner-Shwayder (GLC) discussed the *Biological Invasions* brochure and shared the committee's ideas on how to approach revising the brochure. The focus of the brochure will continue to be on the Great Lakes, with the inclusion of Ontario and Quebec at Francine MacDonald's suggestion. The last brochure was meant to target federal legislators, however, the committee felt that the target audience for the new brochure should be shifted to state legislators of the Great Lakes region. The committee emphasized the importance of developing a brochure that would be valuable for a longer period of time, allowing for extended shelf life of the materials.

The new brochure would be similar to an abbreviated white paper with three main points of focus: raising awareness of the broader issue of biological invasions, allowing legislators to realize the importance of the issue given the economic and ecological impacts, and encouraging action on the part of the legislators. The committee emphasized the importance of making the legislators and other user groups feel that their action is valuable accomplishing tangible results. One way to do this would be to showcase success stories and relate them to preventative actions (e.g., recreational guidelines). The committee also discussed the possibility of incorporating the brochure as part of the ANS Task Force, *Stop Aquatic Hitchhikers! Campaign*. It was decided that participation in the national campaign should be pursued by the I/E Committee. It was also mentioned that the brochure could be tailored on a state-specific basis by developing an insert to address specific needs of the state while also emphasizing regional needs. It was suggested that involvement of the Council of Great Lakes Governors should be solicited in development/review of the brochure.

The committee proposed that the brochure title should be associated with the term, “aquatic invasive species,” indicating that the brochure should specifically address the concept of invasions. In the introduction, the national scope of the problem should be articulated with need for implementation on a regional basis. It was mentioned that the message of the brochure should be kept local to the Great Lakes region while weaving in a global perspective. An important theme of the brochure should focus on legislative/regulatory issues for the ANS issue to be adequately addressed. The committee listed the following points to include and expand upon in the brochure: case studies; a legislative tool box; contact information of responsible agencies prevention and best management practices; cost of recovery; partnerships with agencies, the private sector, and other user groups; pet trade issues; management options (early detection and monitoring, rapid response and containment); ecological impacts with case specific studies and demonstrated impacts; and pathway definition. It was also suggested that cases involving invasive species outside the basin should be presented to exemplify new control mechanisms (e.g., gene technology, pheromones) Maps of the Great Lakes basin may also be incorporated into the brochure to illustrate changes in AIS invasions in the region over time.

The committee also discussed the possibility of building an evaluation component into the project, such as tracking the number of requests for the brochure. It was suggested that Joe Starincheck, staff for the ANS Task Force committee on Communication, Education and Outreach be consulted regarding other possible evaluation mechanisms for the brochure. Staff intends to solicit participation from members of the other Panel committees (Research Coordination and Policy/Legislation) in the development of the brochure. It was also suggested that in brochure development/dissemination, efforts are made to build partnerships between government agencies and the private sector (aquarium). The need for a dissemination strategy for the brochure was emphasized.

**Action Items:**

- **The I/E Committee, with staff, will explore the option of associating the new version of the AIS brochure with the *Stop Aquatic Hitchhikers! Campaign* of the national ANS Task Force. In working with the Task Force, staff is directed to consult with Joe Starincheck regarding possible evaluation mechanisms for the brochure.**

- **Representation from the Policy/Legislation and the Research Coordination Committees will be asked to participate in the process of revising the *Biological Invasions* brochure.**

#### **ii. I/E Priorities Document**

The committee recommended consideration of the *National Invasive Species Management Plan* in finalizing the categories of the draft document of the I/E priorities document. The committee was satisfied with the changes made to the existing draft. There was discussion on expanding the prevention category to incorporate more information on rapid response, early detection, and containment. Leadership information will be incorporated into the document as part of the coordination category, emphasizing the importance of establishing leadership roles to facilitate rapid response and appropriate outreach efforts. It was decided that the category “Assessment of Impacts” should be removed because it is covered in the marketing category. There was discussion on the need for revisions for the marketing strategy.

#### **Action Item:**

- **The I/E committee will develop the next iteration of the I/E priorities document in preparation for discussion at the next Panel meeting.**

#### **iii. Topics for the *ANS Update***

Future topics for the *ANS Update* include an article on the IMO decision from Cameron Wilson (Congressman Ehlers’ office). This article will be more of an editorial on domestic policy. Other future articles may include the aquaculture industry (Ted Batterson), HACCP (Hazard Analysis and Critical Control Point), and a discussion of the Ocean Commission report and its implications.

#### **iv. Renaming the Great Lakes Panel**

The committee discussed the possibility of renaming the Great Lakes Panel on Aquatic Nuisance Species to Aquatic Invasive Species. This recommendation was presented during the reporting session on the second day of Panel meeting. After broader discussion among the full Panel of the difference in connotation of the two words, it was decided that the Panel would support a name change. However, Tom Crane (GLC) reminded the Panel that the name, Great Lakes Panel on Aquatic Nuisance Species, as it currently stands, had been established in federal law. Thus, it was decided that inquiries should be made by Roger Eberhardt (Chair, Great Lakes Panel) at the next national ANS Task Force meeting on how to approach changing the name for the Panel before pursuing any action.

#### **Action Item:**

- **Roger Eberhardt and/or Panel staff will consult with the national ANS Task Force staff regarding how to approach pursuing a name change for the Great Lakes Panel.**

### **B) Research Coordination Committee**

**Attendees:** Phil Moy (Chair, WI Sea Grant), Kevin Walters (staff, GLC), Tom Crane (GLC), Mark Burrows (IJC), Marc Tuchman (U.S. EPA, GLNPO), Tom Johengen (CILER), Joe Mion (OH DNR), Don Schloesser (USGS), Mike Hoff (USFWS), Ted Batterson (North Central Regional Aquaculture Center), Hugh MacIsaac (Great Lakes Institute for Environmental Research), Rick Harkins (Lake

Carriers' Assoc.), Dave Raikow (GLERL), Mike Gardiner (USCG), Jim Grazio (PA DEP), Matt Colmer(USCG), Carl Richards (MN Sea Grant)

### **i. Priorities Document**

Only two sets of comments on the committee's priorities document were received from Panel members after the draft was distributed to the full Panel several weeks prior to the meeting. Cylindro blue-green algae and brown trout will be added to the list of priority species. Additionally, the list of priority species will be divided into three sections: "hot list" species, authorized/intentional introductions, and existing aquatic invasive species. The "hot list" species section will contain species not yet established in the Great Lakes with a high probability of imminent arrival. Examples for the hot list are Asian carp and hydrilla. The authorized/intentional introductions section will contain species such as brown trout and other salmonids introduced intentionally. This section is being created so that recreational fishers and other resource users are not alienated by seeing one of their favored sport fish on the priority invasive species list. All other remaining priority aquatic invasive species will be placed in the existing AIS section.

The priority species list and priorities document will be distributed to funders and researchers to use as a guide when considering new research projects. Additionally, the list and document will be distributed to politicians and legislators as an educational/outreach tool. The "hot list" section of the priority species will also potentially be used as a tool for detection of new invasions. Future updates/revisions to the priority species list may include a photographic key for reliable identification and biological profiles of each species developed by experts.

### **ii. Miscellaneous Discussion**

The committee briefly discussed the potential of using a full-scale ballast water testing platform such as a Myrad vessel. It was decided that purchasing or leasing a dedicated vessel is not economically feasible.

The committee also discussed the development of a genetic bank library for use by taxonomic experts when trying to identify new invasive species. For some species, the genetic work has already been done, but there is still a need for genetic work on many others.

## **C) Policy and Legislation Committee**

**Attendees:** Helen Brohl (Chair, U.S. Great Lakes Shipping Assoc., participated by conference phone), Jen Nalbone (GLU), Jonathan Champion (NEMW), Margaret Dochoda (GLFC), Roger Eberhardt (MI DEQ), Tom Flatt (IN DNR), John Gannon (IJC), Gary Isbell (OH DNR), Mike Ripley (CORA), Dennis Wright (DFO), Jon MacDonagh-Dumler (staff, GLC), Laura Kaminski (staff, GLC), Rolands Bebris (observer, Baltic Sea Fellow of Latvia), Stephan Gollasch (observer, Baltic Sea Fellow of Germany), Vacys Saulys (observer, USEPA)

### **i. Priorities document**

The status of the priorities document for the Policy and Legislation Committee was reviewed. Development of the document was initiated by reviewing several documents related to the Panel and/or regional AIS prevention and control. Priorities from different sources have been integrated

as a draft document, listed in nine categories. Panel staff indicated that priorities document could be finalized by the next Panel meeting (late fall, early winter). Committee members identified upcoming opportunities for use: NAISA reauthorization and the drafting of the National Plan on Alien Invasive Species in Canada. The Committee also recommended that the document be structured so that each category includes an articulated goal; each priority has an associated action; and, very importantly, specific opportunities are identified for application of the priorities document. In discussing the structure of the document, the committee indicated interest in allowing for internal assessment and ensuring that meaningful results were achieved from the priorities document. The Policy and Legislation Committee also recommended that upon completion of all three Panel committees' work on respective priorities documents, a single document be developed based on the identified priorities from each committee, to promote the overarching top priorities.

**Action Items:**

- **Committee members and other Panel members are asked to send any additional policy/legislative priorities for inclusion.**
- **The timeline for completion of the priorities document will be established by staff and the Policy/Legislation Committee.**

**ii. AIS Legislation**

Jonathon Champion (Northeast Midwest Institute) updated the committee on the status of NAISA. It is expected that the legislation will move this session, except in the House Resources committee. Champion explained that efforts of the Senate Environment and Public Works (EPW) Committee are critical, as what comes out of EPW is the best shot for seeing a comprehensive NAISA emerge. Committee members wanted to know to what extent NAISA will be threatened by being fractured, emerging as a ballast only bill. Discussion resulted in agreement that the situation should be considered a crisis with a pressing need to determine how the committee and Great Lakes Panel can influence maintaining a comprehensive, effective NAISA that passes this session. The committee was also interested in the upcoming presentation of Cameron Wilson on how to ensure a comprehensive, effective NAISA is maintained.

**Action Items:**

- **Individual Great Lakes Panel members are encouraged to communicate to the Senate Environment and Public Works (EPW) (and others in Congress) to ensure that the following provisions stay intact in NAISA: screening for intentional introductions; rapid response; regional panels; state management plans; early detection and monitoring.**
- **The committee recommended, and the full Panel approved by voice consent that the Great Lakes Commission send a letter to the Council of Great Lakes Governors, as well as the Mayors/Cities Initiative requesting their support on NAISA. The letter will also update them on the recent concerns about NAISA not passing this session, not being comprehensive, and convey that the states see a need for this legislation and will hold Congress accountable for what happens to NAISA.**

**iii. International Marine Organization (IMO) Ballast Convention**

The committee discussed how to encourage action in the IMO ballast convention without undermining support for NAISA. It was apparent that other countries (such as in Europe as

communicated by our overseas/Baltic visitors) were relying in the IMO convention to protect their aquatic resources. Also discussed is recognition that the IMO serves as the only framework for ballast water management for many countries, and there is concern that without U.S. ratification, the convention will never be enacted. The committee expressed interest in Cameron Wilson's presentation regarding the U.S. position on the IMO convention and how we can encourage progress. There was also a recommendation identifying the need to review the interaction between IMO and free trade agreements while considering ratification. There was some question as to what position the Panel could take on the IMO (given our status of operating under the auspices of the national ANS Task Force) and what process would have to be taken to provide comment. It was determined that communication on the IMO would be required to go through the national ANS Task Force (and not directly to the U.S. Coast Guard). It was also ascertained that the Great Lakes Panel can advise the Great Lakes Commission regarding their position on the IMO. It was decided that the general timeline for work on the IMO issue should not be considered as urgent as NAISA.

**Action Items:**

- **Helen Brohl will contact the U.S. Coast Guard Executive Branch to inquire the status of the review process of the IMO convention and circulate the IMO synopsis document as drafted to the Panel.**
- **A conference call will be held by the Policy /Legislation Committee on the IMO issue to work through the details and draft related recommendations.**

**iv. Policy and Legislation Goals for Panel**

Brohl gave an update on funding and expressed concern that the Great Lakes Panel does not have adequate administrative funding to support general operations of the Panel. The Panel received 50K in FY '04, and can expect the same in '05. She noted that NISA authorized Panel funding at 300K, with 100K specifically earmarked for the Great Lakes Panel. NAISA would authorize regional Panels at \$3 million. There was discussion on the need for sensitivity on funding, as other regional ANS panels needed financial support as well. Brohl reported that she has already requested Rep. Oberstar's office to send a letter asking for at least 75K.

Committee discussion was also held on internal Panel policy, namely, what can and cannot be formally pursued as a regional Panel, as well as the need to clarify Panel definition as a regional entity on ANS prevention and control and associated role. Efforts of the Panel on advocacy need to be clarified. How far can Panel members *advocate* on issues of expertise under the auspices of this regional entity? Also discussed was the need to determine if any changes are needed to Panel operation. Should the Panel be more aggressive in its mission and should more be pursued than just advising the national ANS Task Force and the Great Lakes Commission? This discussion identified the potential need for strategic planning to provide direction to the Panel. The sentiment was expressed that the Panel serves a valuable function for networking, communications, and planning. The issue was raised if the need was emerging to more effectively promote action and change? For example, upon completion of the Panel priorities documents, there was discussion on the need to ensure effective use of the priorities documents. There was also the sentiment expressed that the bi-national scope of the Panel needed to be reviewed to ensure bi-national function. Brohl proposed we create a questionnaire addressing the issues of Panel advocacy and effectiveness of implementation of Panel products. There was a

recommendation to have the questionnaire reviewed by a strategic planning facilitator, to ensure it could serve as a springboard for further operational discussion and modification if needed.

#### **x. Proposed statement for full Committee**

The proposed statement was considered in committee: “The Great Lakes Panel on Aquatic Nuisance Species supports the creation and development of a federal *National Ballast Water Research Center* situated in the Great Lakes region, to better study the conditions of vessel ballast tanks in order to research and test treatments and treatment technologies.”

The Policy/Legislation Committee endorsed the statement and sent it to the full Panel for consideration. The full Panel referred the statement back to both the Policy and Legislation Committee and the Research Committee to redraft the statement, considering the following: accounting for the Great Lakes as a freshwater ecosystem; addressing the issue of timing for this proposal, addressing why it is not too late for this proposal (building a facility is not necessarily about a physical building, it can be about coordination and funding); stress that this proposal is consistent with efforts for research centers in Seattle and the Florida Keys; expand recommendation to call for research on more than just ballast water, need to research whole ship transfer as well as perhaps other aspects of AIS transport. The full Panel was interested in considering the statement again at the November Panel meeting.

#### **Action Item:**

- **Statement on a proposed *National Ballast Water Research Center* in the Great Lakes was referred back to the Policy/Legislation Committee and the Research Committee, for redrafting and future consideration before the full Panel at the next meeting in late fall or early winter.**

### **3) Regional ANS Initiatives**

#### ***Chicago Dispersal Barrier Update, Chuck Shea, U.S. Army Corps of Engineers, Chicago District***

The demonstration barrier (Barrier I) has been in continuous operation since April 2003 with no interruptions. The monitoring of fish is ongoing. To date, 106 fish have been tagged with acoustic/radio transmitters. Only one tagged fish has crossed the barrier (in April 2003) and this was known to have occurred while a barge was passing through the barrier. Since then, field tests have been completed to study how barge traffic impacts the electric field of the barrier. Results of the tests have shown that barges may create a “bubble” effect a few feet under the barge trapping and allowing small fish to pass through without being impacted by the electrical current. The tests also showed that a higher voltage may deter these small fish.

Another general concern is that the demonstration barrier was designed for a life of 3-5 years. The barrier began operation in April 2002 and is, thus, beginning to near the end of its designated life. Some of the electrodes are beginning to corrode, making their effectiveness less dependable. However, this barrier will continue to operate at least until the permanent barrier (Barrier II) is in place and on-line. But the effectiveness of the demonstration barrier (Barrier I) alone is unknown. Once the permanent barrier (Barrier II) is in place, the demonstration barrier (Barrier I) could become permanent but would require upgrades. This might cost approximately \$2 million, but

currently there is no federal authority for making the demonstration barrier (Barrier I) permanent. However, this authority is being pursued by the Water Resource Development Act and NAISA.

In the meantime, the second barrier (Barrier II) is under construction, with a minimum design life of 20 years. This barrier will include two sets of identical electrode arrays for added redundancy and protection, and can be operated independently. This will allow for one to be taken offline for maintenance while the other is still operational. But ideally, both will be operating at the same time. The spacing of the electrode arrays (approximately 200 feet apart) will also be adjusted to eliminate the barge effects. The permanent barrier (Barrier II) will also be larger, with approximately 50-60 electrodes spanning the width of the canal compared with 13 on the existing demonstration barrier (Barrier I). The design of the permanent barrier is expected to be complete in early June 2004, with construction starting by June 30<sup>th</sup>. The construction is expected to be completed by September 30<sup>th</sup>.

Funding concerns for the barrier include the national ceiling (\$25 million for all Section 1135 projects nationwide) on the Section 1135 program. The fish barrier alone would require \$4-5 million to finish construction of the barrier. The original plan by the Corps was to spread out the \$25 million across the nation and among all projects and not fully fund some projects and eliminate others. However, based on the need and publicity for the fish barrier, the Corps has agreed to prioritize the project and fund it fully this year, up to \$5 million (the Section 1135 limit for federal funding). Therefore, the design for the barrier is being reworked to fit within the available federal and Illinois funding (25 percent of the project) for a total project cost of \$6.7 million.

The congressional delegation from Illinois has proposed that the long-term operation and maintenance for the barrier be conducted by the federal government and that the state of Illinois be reimbursed for their costs, making the barrier an entirely federally-funded project. Since the barrier will benefit the entire region, this proposal is currently being considered. If the temporary barrier is made permanent, it would also be operated as a federal project. However, if the second, permanent barrier is operated by the state of Illinois as a state project, this could pose some problems. Thus, some sort of legislative maneuvering may be required to consolidate the operation of a barrier system with one entity.

~~A feasibility study is currently underway to determine if complete hydrologic separation of the Great Lakes basin and the Mississippi River basin should be pursued as a management option.~~

Those who support stopping the movement of aquatic invasive species have proposed engineering a complete hydraulic disconnection of the Mississippi River and Lake Michigan basins. A study to determine the feasibility of a hydraulic disconnection would first need to be completed. Such a study is reportedly under consideration by Congress. It is possible that at some point in time in the future, authorization and funding will be secured to conduct a feasibility study.

#### ***Rapid Response Efforts for Asian Carp, Phil Moy, Wisconsin Sea Grant***

Moy presented the efforts of the multi-agency response planning team for Asian Carp rapid response planning. After a series of 12 monthly meetings, the team's draft response plan was finalized in March 2004. The draft identifies the Illinois Department of Natural Resources (DNR) as the lead agency for a rapid response, and identifies locations and methods for a rapid response. The draft includes monitoring and outreach strategies as well. The team considered various response methods, including harvest/removal, explosives, nets, heat, removal of oxygen, killing with a barrier,

containment/herding, increased flow at locks, attractants/repellents, sonic disruption, and chemical control. Chemical control with rotenone was selected as the preferred method of response. Discussions also led to the team's examination of market development for Asian carp and a contract fishery for Asian carp in the Illinois River.

The known extent of Asian carp movement includes the identification of two individual carp in the Des Plaines River, approximately 22 miles downstream from the barrier, with two locks in between. Asian carp are currently abundant in the Illinois River. Their average movement within the Des Plaines River has been approximately 50 miles per year; however, they do have the capability to move up to 120 miles in a month. The Illinois DNR, the Metropolitan Water Reclamation District, the U.S. Fish and Wildlife Service, and the Chicago District Corps of Engineers are all involved with the response planning team's monitoring efforts and to assist in documenting upstream advances at four sites utilizing monthly samples. No bighead or silver carp were seen or caught in 2003 and no Asian carp were seen or caught in March or April 2004.

If Asian carp are found in the Lockport Pool, an intensive sampling campaign will be initiated to confirm their abundance and then action would be taken with chemical control, if necessary. Smaller fish are of particular concern, as it has been observed that larger fish are likely stopped by Barrier I. A rotenone response will require the locks to be closed for about 24 hours, with no vessel movement during 8 hours of treatment. Chemical control would occur over a 5.5 mile stretch over an 8 hour period. It is expected that 200,000 to 250,000 pounds of dead fish would result, with the fish sinking initially and then rising several days later. The fish clean up could take several days. Caged carp could be used to assess the effectiveness of the treatment. After the treatment period, chemical detoxification measures would be applied.

The team decided that outreach would be necessary prior to a chemical response. Outreach would include meeting with public officials ahead of time, holding public information meetings, distributing press packets, and initiating a follow-up outreach effort with press releases. This type of emergency response would be a one-time effort on this scale. The effort would require average low flow and should occur in late June to early September. After Barrier II is fully in place, the response, if needed, would focus on the stretch of canal near the barriers and could occur on an annual or semi-annual basis.

Challenges to overcome with rapid response planning include the difficulty to confirm the presence and abundance of the carp, obtaining Illinois EPA permits, addressing public or other opposition, completing Barrier II before the carp arrive, and acquiring adequate funding. The rapid response committee finalized the rapid response plan on March 15<sup>th</sup> and is currently awaiting approval from Illinois DNR. In the meantime, the committee is working on an outreach brochure and is assembling press packets so that they are prepared in advance if the need for a rapid response effort arises.

It was noted during discussion, that effective implementation of the rapid response plan is dependent upon public understanding of why aggressive action is needed. Efforts should be made early on to inform the public of the benefits of rapid response to avoid litigation over the use of chemical treatment.

***Midwest Natural Resources Group Rapid Response Pilot Project, Mike Hoff, U.S. Fish & Wildlife Service***

Hoff provided the Panel with an update of his work within the Great Lakes region concerning early detection and rapid response for garlic mustard at Sleeping Bear Dunes National Lakeshore and Huron-Manistee National Forest. This effort is being led by the Midwest Natural Resources Group (MNRG) and implemented by the U.S. National Park Service (NPS) and U.S. Forest Service (USFS).

The MNRG is comprised of 13 federal agencies working jointly to better coordinate programs and speak with one voice. The MNRG has developed partnerships with federal agencies involved in the invasive species issue to achieve goals specifically related to watershed planning, urban sprawl, and invasive species. NAISA, if passed with current language, will establish federal rapid response teams to implement rapid response strategies on federal lands among other duties.

The MNRG has developed a Memorandum of Agreement (MOA) on Early Detection and Rapid Response for approval by its member agencies. The objective of the MOA is “to undertake collaborative efforts to prevent, detect early, rapidly respond to, and control non-native invasive plants and animals, while providing the states, tribes, and the public with the information, understanding, and opportunities they will need to join the MNRG in these efforts.” At this point, the following eight agencies have approved the MOA, including U.S. Forest Service (USFS), National Park Service (NPS), Natural Resource Conservation Services, U.S. Army Corps of Engineers, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, and the U.S. EPA. The remaining member agencies did not disapprove of the MOA, but do not hold authorizations regarding invasive species.

The Rapid Response Task Group, co-chaired by the U.S. FWS and the U.S. EPA, was formed in April 2003 to implement the MOA. Each agency was asked to identify their priority species and locations for rapid response and available resources and expertise. The Task Group was asked by the NPS and USFS to undertake an early detection and rapid response project on garlic mustard at Sleeping Bear Dunes National Lakeshore and Huron-Manistee National Forest. This invasive plant poses a severe threat to native species.

The project dealing with garlic mustard started in spring 2004 and will last for two years with a focus on a known area of infestation. The NPS Great Lakes Exotic Plant Management Team will play a role in control efforts; crews from NPS and USFS have already been programmed for control work. In addition to budgets for field crews, a first year (FY04) start-up budget of \$5,000 has been provided by the USFS Milwaukee Regional Office and will be equally shared by NPS and USFS. The funding will be used to develop educational materials for presentation to all involved county road commissions (11) for both project partners. A budget of \$10,000 was requested by USFS for FY 05. The project work plan includes the following tasks: MNRG endorsement; NEPA compliance; communications with partners; rapid response and control (management options of hand-pulling and herbicide use); investigations of future bio-control protocols (e.g., root mining weevil); prevention, education, and outreach (hand-pulling must occur before plant goes to seed); and training.

To date, MNRG endorsement has been achieved and the NEPA (National Environmental Protection Act) compliance is in progress at Sleeping Bear Dunes National Lakeshore. The NEPA compliance approach will depend on whether herbicide use is planned (either categorical exclusion (i.e. waivers

to NEPA requirements) or Environmental Assessment). At this point, the use of herbicide is not planned for 2004, but may be used in 2005. NEPA compliance is also in progress for Huron-Manistee National Forest. Rapid response measures are currently considered a categorical exclusion (to NEPA) based on the control techniques being used and herbicide application is confined to use on specific recreation and administrative sites.

***IMO Ballast Water Management Conference, Cameron Wilson, Staff, Congressman Ehlers' Office***  
Wilson provided an overview of his observations as a Congressional Observer to the International Maritime Organization's (IMO) Convention for the Control and Management of Ships' Ballast Water and Sediment, in February 2004. Wilson also gave a brief description of the domestic legislation, NAISA, as proposed in Congress. The IMO treaty is intended to regulate port states as well as flag states. It was noted that the U.S. is mostly impacted as a port state. The U.S. delegation to the treaty began negotiations with a very strong position in terms of environmental protection from AIS introductions through ballast water discharge. Results from the IMO Conference were considered a positive step forward, yet considered only a small one.

The main focus of the convention dealt with ballast water management involving two components: mandatory ballast water exchange and ballast water treatment. The mandatory ballast water exchange regulations are effective immediately, however, in practice, the regulations will not enter into force until late, the timeframe for which is unclear. The ballast water treatment component requires that ships built after 2009 will have treatment systems on board; older ships will install technology depending on the size of the ship.

Another issue brought up at the convention is the development of technical standards based on the size of the organism being transported. It has been observed that this is not a risk-based standard (no dose effect), which is somewhat controversial. IMO staff provided many great testimonials in developing standards, which can be used to inform the domestic debate. The crux of the problem is that since we do not have the technology to inform the standard, we do not know the effectiveness of environmentally protective technologies, thus not providing the basis upon which to set the standard. This has, in the past, led to many circular discussions. A significant development resulting from the convention is the establishment of a standard for ballast water discharge.

Wilson also discussed a fundamental provision to the treaty, beyond that of ballast water exchange and treatment components, and the development of a technical standard. This key provision is the entry of the new regulations into force, for which the timing is unclear, as the treaty must first be ratified by 30 countries representing 30 percent of the gross world tonnage. The U.S. has a great commercial interest in having these ships come into our ports. However, there are many other smaller "flag states" that comprise the gross world tonnage that could play an integral role in the ratification of the treaty.

As stated in the language of the treaty, a review of the technical standards will be conducted by a committee scheduled for 2005. The review is important given the intent of the review is to look at how technology is performing based on existing experimental technology programs such as the STEP program at the U.S. Coast Guard. Use of existing experimental technology in the review could identify a need to revise the standard; a revision could then occur in late 2005 or 2006 which could affect the timing of implementation of the treaty standards and regulations.

A critical aspect of the treaty is Sovereign Rights Article stating that parties to the treaty can enact more stringent measures as proposed in U.S. domestic legislation of NAISA. The National Invasive Species Act Reauthorization (H.R. 1080, 1081, and S. 525) contains a ballast water title which requires mandatory ballast water exchange and follows the IMO treaty language. These reauthorization bills also identify standards (technology based and environmentally protective) which differ from the IMO treaty and will need to be reconciled with the IMO framework. This could be accomplished during the administration's review of the IMO treaty, depending on how the process is proceeding and the information under debate. Domestic timelines also vary from that of the IMO treaty (domestically, our timeframe is more aggressive). Other major titles within our domestic legislation include provisions for screening, coordination, rapid response, research, and funding. According to Wilson, there will be a great push in future discussions to reconcile the IMO treaty and U.S. domestic legislation for consistency. Wilson emphasized the need to continue more stringent actions to protect our waters.

It was noted that the IMO Convention should be considered a global umbrella which countries should use to leverage higher level of standards, actions and programs. Additionally, observed at the convention is the need to identify the best available technology that should be used to revisit the IMO standard in a research based approach.

***A Model GIS Assessment of AIS in Michigan Waters, Kevin Walters, Great Lakes Commission***

An overview was provided concerning the model GIS assessments of non-indigenous invasive species in Michigan waters, being developed by Great Lakes Commission staff and funded by Michigan's Great Lakes Protection Fund. The goal of the project was to develop and implement an internet-based spatial database of AIS invasions within the state. The GIS assessment was designed for use in addressing the need to improve coordination among resource managers, track the spread of existing invasions, raise public awareness concerning the magnitude of the problem, develop new monitoring programs, and establish a baseline of current infestations and document historic trends. Product partners include David Jude (Univ. of Michigan), Mark Dryer and Gary Czypinski (USFWS), Mike Klepinger (Michigan Sea Grant), Tom Nalepa and Henry Vanderploeg (NOAA-GLERL), and Gavin Christie (Great Lakes Fishery Commission).

Products of the project work include an internet tool with statewide data on six key AIS invasions. The tool is searchable and viewable by watershed and county, including FGDC (Federal Geographic Data Center) compliant metadata and species abstracts. Current project tasks include finalizing the interface map, species abstracts, and absence/presence maps. The final product will be placed on the Great Lakes Information Network (GLIN) at [www.glin.net](http://www.glin.net). To showcase the capabilities of the tool, Walters provided a broad demonstration for the meeting participants.

Project partners have agreed to provide regular updates to the existing data. The Commission is currently seeking funding to expand the tool to include the entire Great Lakes basin. Additional project partners are also needed to expand the species catalogue. Other parallel GLC projects include *the Great Lakes Monitoring Inventory* (Contact: Anne Sturm, [asturm@glc.org](mailto:asturm@glc.org)), *the Great Lakes Observer System* (Contact: Roger Gauthier, [gauthier@glc.org](mailto:gauthier@glc.org)), and *AIS Early Detection and Monitoring: A Pilot Project for the Lake Michigan Basin* (Contact: Kathe Glassner-Shwayder [shwayder@glc.org](mailto:shwayder@glc.org)).

***Biological Invasions Brochure: Update/Revision Process, Kathe Glassner-Shwayder***

Glassner-Shwayder informed the group of the Panel's effort to revise and update the *Biological Invasions* brochure, based on guidance of the Information/Education Committee. The target audience for the brochure will shift focus from federal towards state legislators and other user groups, including recreational and commercial users. The goal of this revision is to update the existing brochure with discussions of pathways of AIS introductions and spread. Case studies will also be used to illustrate success stories. Some examples of potential case studies include the economic and ecological impacts of hydrilla; management options like bio-control of purple loosestrife and eradication gene technology for sea lamprey; research relevant to ballast water management; and AIS priorities such as the snakehead, Asian carp, and hydrilla. The new brochure will also highlight a tool kit of proven strategies in areas of outreach, policy and management. Several examples of these strategies are boater fees to generate a new funding stream, the distribution of watch cards as an outreach tool for species-specific identification, the use publications such as the *Biological Invasions* brochure to present policy and legislation issues of priority concern, and recreational guidelines with the Stop Hitchhikers brand logo.

Other approaches and topic areas that have been considered for this revision include a legislative update using gap analysis to identify legislative needs, state specific inserts targeted to legislators and policy makers, and tracking the progression of spread of specific species over a period of 3-5 years. Also noted was the value of illustrating partnerships (e.g., governmental agencies with the private sector) with special attention to the need for global collaboration. The benefit/cost relationship of AIS invasions can be illustrated to show the cost of management versus the benefits and the risks and costs of not taking action. It has also been suggested that the existing U.S. map be replaced with a Great Lakes basin map to illustrate the collective needs of the states on a regional scale. One final key point of discussion is the need for a process to evaluate the effectiveness of the brochure.

Glassner-Shwayder mentioned that a sub group of the Information/Education Committee has been working on developing ideas for the brochure to date. It was requested that members of the other Panel committees provide input in development of the brochure. The committee's goal is to have an initial draft of the brochure to present at the next Panel meeting.

Other points of interest raised by the general audience following the presentation included the following:

- Will the brochure contain a national, regional, or global perspective? One Panel member suggested that the introductory text of the brochure introduce the problem as global and national and then focus on implementation at a regional level to maintain the Great Lakes focus.
- How will the brochure be distributed? Hard copy, website, or CD? The I/E Committee is considering distributing the brochure via the website to provide access to interactive maps. However, this approach would require a different brochure format than could be distributed in hard copy. Members of the I/E Committee expressed interest in the brochure(s) holding a 5-10 year life span.
- How will the revision of the brochure be funded? It will be supported by the U.S. EPA Great Lakes National Program Office (GLNPO), with additional funding from USFS and the U.S. Coast Guard. This will help with dissemination and design of the brochure.

**Action Items:**

- Panel members are requested to contact Kathe Glassner-Shwayder ([shwayder@glc.org](mailto:shwayder@glc.org)) with any comments regarding the brochure revision.
- Members of the Policy/Legislation and Research Coordination committees interested in participating in developing the new brochure should also contact Glassner-Shwayder.

**4) Rapid Response Project: Great Lakes Commission Progress Report**

*Regional Rapid Response Model Plan for Great Lakes Aquatic Invasions, Kathe Glassner-Shwayder*

Glassner-Shwayder provided a brief update on the *Regional Rapid Response Model Plan for Great Lakes Aquatic Invasions*. Project goals include developing a model plan to facilitate timely implementation of appropriate eradication and/or control measures upon discovery of an AIS invasion and anticipating, preventing, detecting, and responding to new invasions on a state/regional basis. Project funding is made available through U.S. EPA GLNPO. To date, the workshop findings from Workshop I (July 2003) have been incorporated into a second iteration of the model rapid response plan along with findings from the literature review. Workshop II, involving a species specific case study for the rapid response plan will take place this coming summer. The review of the second iteration of the model plan will continue through the summer of 2004, with completion of the plan by the end of September 2004. Outreach and dissemination of the model rapid response plan will occur through a separate NOAA grant.

Workshop I of the current rapid response project convened state and federal agencies and other regional stakeholders to discuss and develop the model plan components. During this workshop, project staff worked to build consensus among participants on the plan components and also provided the opportunity for regional and national experts to share their experience and advice for further development of the plan components. The workshop provided the opportunity for staff to build capacity for implementation of the model rapid response plan.

Key changes to the second iteration of the model rapid response plan included input based on additional literature sources and the species-specific case study development on hydrilla from the Michigan DEQ. The objectives of the plan have been carefully examined and refined to reflect the desired outcomes of strategic tasks. The background section has been further researched based on workshop findings and literature. The strategic tasks have been added for each component to serve as a “roadmap” for implementation. Also, a new component on funding has been added.

In further review of the model rapid response plan, Glassner-Shwayder provided guidance based on the following points:

- Does the structure of the plan provide the overall guidance to effectively address rapid response for AIS invasions?
- Does the model plan capture the appropriate objectives and strategic tasks for each component?
- Is the level of detail in the strategic tasks appropriate?
- Does the plan demonstrate the interrelationships between the components necessary for effective rapid response?

- Are there other significant resources, examples or case studies that need to be included in the model plan?
- Does the model rapid response plan address the fundamental questions posed at the beginning of the project (section on problem definition)?
- Are the objective statements posed as objectives? If not, how can they be revised?
- How can the process of risk assessment be more effectively integrated into the model?
- Is there a need for a more quantitative approach on which to base the decision support system?
- Would it be helpful to provide a higher level of specificity for management options? (perhaps through a listing of case studies)
- Graphics are planned for the sections on Organizational Structure and Adaptive Management – Is there a need for graphics elsewhere?
- Does the paradigm for outreach work with the use of the phases: “pre-invasion”, “progression of AIS invasion” and “post invasion”?

Comments on the second iteration of the model plan will be accepted through mid August with continued work on the plan through the summer. The final draft and project completion are expected in September 2004.

***Species-Specific Case Study, Roger Eberhardt, Office of the Great Lakes; Mike Klepinger, Michigan Sea Grant***

Eberhardt discussed the potential invasion of hydrilla as a case study to further explore development of a regional rapid response plan. A Hydrilla Task Force was established in January 2004 under the Michigan Aquatic Nuisance Species Council. The Task Force includes committees on outreach and rapid response. The hydrilla rapid response committee has used the framework of the model rapid response plan, developed by Great Lakes Commission staff, adapting the components for use in the event of a hydrilla invasion in the state of Michigan. A draft plan for implementation of a response to hydrilla invasion will be available for discussion for the upcoming workshop on the rapid response case study this summer. The hydrilla outreach committee has been working on materials to distribute to the public to introduce the issue of invasive species and potential responses.

Klepinger discussed the issues of prevention and monitoring and the potential role the public might play in helping with the early identification of new invasive species. Within the state of Michigan, the Michigan Sea Grant has created “hydrilla hunt” cards to help citizens identify and locate these plants to assist with early detection efforts. These cards are meant to target riparian landowners, recreational boaters, anglers, and the general public. Studies have shown that the state of California has had great success with early identification of invasive species through such measures, and has been able to significantly reduce their costs for containment.

**Action Item:**

- To support outreach efforts on hydrilla rapid response, Panel members should contact Mike Klepinger ([klep@msu.edu](mailto:klep@msu.edu)) for more information or if there is interest in creating hydrilla hunt cards for other Great Lakes states. Digital files are available for reproduction and the state name can be easily inserted.

## 5) Panel Business and Member Updates

In continuation of the morning's *Other Panel Business* session, Crane continued his discussion on the organizational aspects of the Panel and presented some next steps for project staff to be completed prior to the next panel meeting.

When the Great Lakes Panel was first formed, limited guidance was provided on a protocol for establishing Panel membership. The Panel then put together some basic operational guidance. However, with the introduction of at-large membership, the Panel has grown significantly and the role of the Panel has also been evolving over the last several years. To help the Panel manage these changes, a need has emerged to develop some greater operational guidance. Thus, the Great Lakes Commission proposes to put together a draft operations manual covering topics such as Panel membership, role of the Panel, role of the officers, at large membership, role of the project staff, voting process, definition of consensus, and a broader description of the Panel's relationship with other regional Panels and the national ANS Task Force. The operational manual will be developed in addition to the Panel work plan with a draft available for discussion at the next Panel meeting.

Reference was made to the morning session of the Policy/Legislation Committee report with the recommendation to conduct a survey of the Panel membership to help identify advocacy needs and future directions for the Policy/Legislation Committee. Due to time constraints, further discussion of this recommendation was abbreviated. Crane proposed to postpone this survey until after the Panel's organizational issues have been formalized and the priority documents have been completed. Eberhardt agreed that many of these issues may actually be included in the proposed operations manual to be drafted for the next Panel meeting. Crane and Eberhardt agreed that initial work on the survey should be prepared for review at the next Panel meeting based on clarification of the Panel's advocacy role and limitations.

### Action Items:

- **Staff will work with Panel chair and vice chair to develop a draft operations manual for the Panel to review at the next Panel meeting.**
- **Staff will confer with the co-chairs of the national ANS Task Force to determine the advocacy role of the regional ANS panels and incorporate this guidance into the Great Lakes Panel's draft operations manual.**

Glassner-Shwayder presented several options for the next fall/winter Great Lakes Panel meeting. Due to budget constraints, recent meetings have been held in Ann Arbor; however, Crane suggested that that the U.S. EPA offices in Chicago should be considered as another alternative. Klepinger also proposed having the Great Lakes Panel meet in conjunction with the Mississippi River Basin Regional Panel and/or the national ANS Task Force. Additional information on the timing and location of the next meeting will be provided as it is available.

Crane announced that GLC staff will prepare a list of action items and minutes from the Panel meeting to be distributed to all Panel members and participants. With no further business, Crane thanked the Panel members and other guests for their attendance and participation and announced that the meeting was adjourned.