

## “Opportunities for Better Controls of Invasive Species in the United States and Canada”

Presented at the 2005 Great Lakes Conference and Biennial Meeting  
of the International Joint Commission  
Kingston, Ontario

June 9, 2005

It is a privilege to speak at an International Joint Commission biennial alongside such a lineup of well respected experts in the field. I'd like to thank the International Joint Commission for the invitation, and the acknowledgement of the role non-governmental organizations play in advancing such an important issue such as aquatic invasive species prevention.

This talk will look at untapped opportunities to catalyze change and prevent new introductions of AIS by international commercial vessel transportation. It will identify approaches being actively pursued, as well as options just being debated. What they all have in common is that they are ways we can better prevent invasions. There *are* ways we can do more. And ultimately this talk intends to illustrate that we have substantially more authority to protect the Lakes than is currently being exercised.

Before starting, I'd like to point out an essential role of NGO participation. To a large extent, my role and the role of many other NGOs is to say in public what citizens and agency employees in the United States and Canada, have been informally discussing at least since the mid-1990s. The NGO voice provides a means to open a space and help turn private discussions into legitimate public considerations.

The Great Lakes have long been ground zero for invasion. We are considered a world leader in regulations to prevent aquatic invasive species, but unfortunately what we know (as starkly described by Drs. Ricciardi and Mills in earlier presentations) is that our efforts have not curbed the rate of new introductions. We are not gaining ground. As we make an improvement, the vectors open even wider. This was exposed by both the U.S. and Canadian federal governments in 2002, when the U.S. General Accounting Office and the Auditor General of Canada released reports that found among other things:

- The two governments have not responded effectively to the invasive species threat
- Measures put into place to prevent aquatic introductions have not worked
- Canada and the United States have neither a binational approach nor do they have a single agency in charge of managing the problem
- It may take at least ten years for effective ballast water management techniques to be developed and implemented

It is worth mentioning that ten years continues to be an optimistic estimate for any control measure for ballast water on existing ocean-going vessels. Ocean-going vessels stay in service for twenty years or more. The political reality is that exempting or grandfathering

existing vessels from new requirements will become a greater debate as we move closer to a more effective regulatory regime.

No significant progress has been made to counter the above official assessments. This dynamic poses the question of whether we can ever overcome the problem given the current approach.

This is not to say that there aren't many people working intensely to solve the problem. This region is clearly working hard. We have every reason to; we are the world's largest freshwater ecosystem and drinking water reservoir. We are geologically young, and distinctly unique in ecological character. The Great Lakes is a great place, and admirable efforts are taken every day to protect them from invasions.

For example, we just heard of efforts in the United States by the Coast Guard that demonstrate the new agency awareness and need to address the NOBOB problem. We also heard of efforts in Canada to finalize changes to the Canada Shipping Act to better reflect mandatory regulations currently in place in the United States and to take a significant step further by regulating NOBOBs and setting a national ballast water standard.

Other efforts include the pending U.S. National Aquatic Invasive Species Act, which would require effective standards for ships' ballast water applied to all transoceanic and coastal vessels by 2011. This national legislation has been languishing in committee ever since its introduction in 2003. There is a real concern that this good bill will never get out of committee, or that it will be significantly weakened, or that weaker competing bills will displace it.

Internationally, many agency representatives have spent years negotiating the International Maritime Organizations' Ballast Water Convention, which, if ratified, would set global standards for ships' ballast water. We are fortunate that negotiators ensured the IMO standards are only a floor, so that members are free to set higher standards. A global standard will reduce the rate at which species are transported around the world, resulting in a better buffer for our two countries and the Great Lakes, but it is unlikely to stop the flow completely. For that, we will need higher standards.

We have also seen significant investments from private industry into developing, testing, and demonstrating on-board technology for cleaning ballast water. Of recent note are FedNav's efforts to install a prototype ballast water treatment system on one of its Seaway-sized bulk carriers this summer.

And we are fortunate to have many committed individuals working in state, provincial, and local resource agencies. They are on the front line trying to control new invasions with little funding or support. Thanks go to everyone who is involved in continues to be involved in these important efforts.

But we are just not getting the job done. We seem to be getting better organized and talking more about the problem. But real progress will be made only when we enforce

appropriate regulations and make actual changes on the ground. While insufficient to completely eliminate introductions, our current regulatory regime is not being fully implemented.

So, let's look first at existing opportunities to prevent AIS by simply enforcing the laws on the books.

In Canada we see international, national, and regional commitments to prevent AIS, but Canada has yet to adopt enforceable regulations based on its existing laws. Canada is signatory to the Convention on Biological Diversity, which says each party shall prevent the introduction of threatening alien species. The Canada-Ontario Agreement also includes a major commitment to reduce the entry and spread of invasive species in the Great Lakes.

Canada's only action to date has been to rearticulate these commitments in an action plan, with a followup implementation plan due in later this year. The goal of the plan is to eliminate introductions, identify gaps in existing legislation, and consider regulatory amendments where necessary. All this is essential, but what we have not seen, and need to see in Canada, is an actual effort to enforce what laws already on the books.

How can Canada move closer to enforcement of existing legislation? An opportunity exists in the Shipping Act to do more than is being done. Section 657.1 of the act allows the federal government to make regulations to control and manage ballast water to prevent introductions of aquatic invasive species. This is all the authority needed to develop stringent mandatory protective measures. Specifically Canada could better reduce invasions to the Great Lakes by going further than the proposed new regulations. In the Shipping Act Canada needs to set a deadline by which ballast water exchange would no longer be an option and require any oceangoing vessel entering the Great Lakes to either retain ballast tank contents at all times or demonstrate the use of an adequately protective treatment or technology.

Another specific effort made in the late 1990s by a federal minister was to extend the definition for pollutants to include biological pollution and foreign-ships ballast discharges within the Canadian Shipping Act. This bill was rejected but would have recognized that foreign ballast is a pollutant and then allow it to be treated as a pollutant, and resulted in ballast water coming under the scrutiny of federal legislation such as the Canadian Environmental Protection Act.

Another specific opportunity for greater action includes enforcement of provisions in the Canadian Fisheries Act. While the act says little specifically about invasive species, Section 36 prohibits throwing ballast water overboard in any water where fishing is carried on. Section 35 declares, "No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat." Section 32 states, "No person shall destroy fish by any means other than fishing except as authorized." Certainly this federal legislation provides means for enhanced efforts against the introduction of invasive species.

There are also existing opportunities exist to better regulate AIS in the United States. As we just heard, the U.S. Coast Guard has a growing awareness that ocean-going vessels classified as “No ballast on board” must be regulated. However, progress is not made through growing awareness. It is made through actually changing regulations on the ground, and that’s exactly what the Coast Guard must do: require management of NOBOBs immediately. Reasonable recommendations for this management were made during a public hearing in Cleveland last month, and can be found on the docket.

It is telling to note why the Coast Guard is focusing on NOBOBs. Last summer a legal petition was filed led by the New York State Attorney General’s office with the states of Pennsylvania, Ohio, Illinois, Michigan, Minnesota, and Wisconsin as well as Great Lakes United as co-signatories. The legal petition basically says that for twelve years the Coast Guard has had the clear mandate and authority under the National Invasive Species Act to regulate all ocean ships that enter the Great Lakes, regardless of the status of their ballast tanks, and essentially that there was no reason in existing law why NOBOBs were being exempted.

How much further can NISA go? Regulations under NISA (33 CFR Part 151 Subpart C) states that each ocean-going vessel “shall employ one of the following ballast water management practices: 1) Carry out an exchange of ballast water...2) Retain the vessel’s ballast water on board the vessel...3) Use an alternative environmentally sound method of ballast water management.” Subpart C further states that the Coast Guard can restrict operations in the Great Lakes of vessels not in compliance with one of the above ballast water management requirements.

Based on initiatives started by the attorneys general, and considering that the Coast Guard now acknowledges that NOBOB vessels do carry ballast water, these regulations under NISA provide a great deal of leverage. Simply put, any ocean-going vessel that enters the Great Lakes that does not employ either ballast water exchange or an approved alternate method is failing to comply with Coast Guard regulations and must retain tank contents or not come in.

It is also worth mentioning that under NISA, we can improve reporting of actual amounts of foreign material being dumped in the Great Lakes. The Coast Guard must ensure the honest reporting of the actual volume in NOBOB tanks. Since last years requirement for more complete reporting, ships regularly report zero or nil, when in fact this is not the case.

Another way to spur on a more complete regulatory regime under existing law is being pursued under the Clean Water Act. Plaintiffs lead by Northwest Environmental Advocates have brought a lawsuit against the Environmental Protection Agency for failing to enforce the CWA. The lawsuit asserts that EPA must require discharge permits for ships’ ballast water. EPA has long exempted ballast water as a source of pollution, and deferred to the Coast Guard as the sole federal regulator of ballast water. Several of the Great Lakes states have recently been granted intervenor status in the remedy phase of this case. EPA needs to begin consideration of how some form of general permit for a large group of ship

applicants might work to improve protections in national waters and complement Coast Guard efforts while not creating unnecessary bureaucracy.

The U.S. federal government is not the only potential party who can act now. States too can act, and some recently have been. A recent Michigan law mandates that by January 2007 all ocean-going vessels must apply for a permit from the state Department of Environmental Quality before being allowed to use Michigan ports. To qualify for the permit, ships must prove they either will not discharge ballast water or they are equipped to prevent discharge of aquatic invasive species. Ships failing to comply with permitting requirements would be fined. The bills also require the Department of Environmental Quality to form a coalition with other Great Lakes states to implement consistent policies to protect the lakes. Notably, the Michigan legislation doesn't create new authorities, but rather requires the DEQ to use existing authority it has under the Clean Water Act's National Pollutant Discharge Elimination Permitting System. In other Great Lakes states executive orders could accomplish a similar end.

This state-led action clearly illustrates a level of frustration with the lack of enforced, acceptably protective regulations by the federal government. State-led efforts can provide temporary relief from invasions while the region waits for federal action, and can likely accelerate the development of federal regulations due to objections from shippers facing inconsistent requirements.

In Canada and the United States, we have an opportunity right here at the IJC biennial to better coordinate efforts between the two countries and reinforce the need for greater regulation under the laws in existence now. The International Joint Commission is responsible for the review of the Great Lakes Water Quality Agreement, and a significant portion of the biennial tomorrow and Saturday will be spent discussing what issues should be considered in a review. The general purpose of the agreement is "to restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes basin ecosystem." Surely the agreement might be used to address the number one threat to the biological integrity of the Great Lakes.

But how? Can the IJC review the issue, identify why there has been virtually no change in over ten years, and demand that both countries explain why they are being negligent in using existing regulatory authorities to their fullest potential? In the next few days, we will begin these important discussions.

Now, let's change gears a bit and move onto alternative ideas and theoretical arguments that could become significant means to address AIS. Let's first look at transshipment, the idea that ocean going vessels should be restricted to ports outside the Great Lakes basin and their goods moved into the basin via a clean mode of transportation. Dr. Taylor's presentation indicated the tremendous ecological *and economic* benefit to be gained if the two governments facilitated a change to transshipment of international goods into the basin.

To speak frankly, this idea has been called radical and spooks some people because it means significant change. And significant change, no matter how rational or convincing, can be a political non-starter. But a look at the history of commercial navigation in the Great Lakes begs an alternative question about radical changes—those caused when the Seaway was constructed, opening the largest drinking water reservoir in the world to global deep-draft commercial vessel operation and the subsequent dumping of invasive species and human pathogens. If we knew in 1959 what we know now, would we have accessed world markets in the same way? It can be argued that the idea of modifying the use of the Seaway from open highway to transshipment depot is actually a step back from the current radical changes occurring right now, on average once every six and a half months to be precise, in the Great Lakes ecosystem due to aquatic invaders.

The impetus to examine this idea goes beyond invasive species. Even if we solve the AIS problem in the Great Lakes through regulations, the Great Lakes and the valuable Great Lakes shipping industry will continue to experience growing tension. Future issues include maintaining draft depth in the face of potential climate change effects, maintenance of significant changes to natural flow regimes, ongoing battles about ice breaking in the St. Lawrence River, and even whether unrestricted access by ocean-going vessels is a homeland security issue. Broader rethinking of the Great Lakes navigation industry deserves academic investigation by transportation and environmental economic experts.

Another undeveloped opportunity is insurance. Vessels coming in are uninsured for damages that they might cause through the introduction of biological pollution. In the past, liability was impossible to assign, because nobody was looking very closely and we didn't have a regulatory regime by which to judge the legality of actions. That's changing. AIS are receiving much greater scrutiny, and we have calls for coordinated monitoring methods. It can be argued that merely requiring liability insurance would promote an adequate regulatory structure within which actions can be deemed acceptable or unacceptable. Insurance holds potential as both a prevention and remediation measure. Requiring coverage would significantly discourage dirty ships from entering the basin, and in the case of a new invasion, insurance could be used to reimburse costs of rapid response, management, remediation, and compensation for damages to the food web and ecological services.

Who will demand that shipping obtain coverage is the main question of this approach—states, provinces, the federal governments, impacted stakeholders or a combination of these actors? Only one thing is certain: under the current regime state and provincial legislators, regional industry, and individual citizens are picking up the tab for biological pollution.

There are other approaches and discussions that often seem to be swept aside. Retrofitting existing ships is acknowledged as needed but serious developments have not yet been made in this area. The theoretical idea of using land-based or moving barge stations to receive ballast water is being discussed in the U.S. Great Lakes Regional Collaboration, is already an option under the voluntary Canadian Ballast Water Management Guidelines, and needs critical examination. Tax shifting and taxes on ballast levied according to the

amount of dirty ballast being discharged holds the potential as a market incentive if properly developed.

One obvious question amid all these options is which approach is best. Is the problem best solved on the international, national, or regional level? Do we enforce as much as can in the short term, or focus on long-term goals? Is the best solution onboard, land-based, or transshipment-related? Do we work with agency leadership or go to court?

My thought is this: the Great Lakes region works together well. We truly are on the same team addressing this issue. But as much as we have all committed to AIS elimination, there is a greater synergy that has yet to be accessed. There is no reason why one approach should compromise another if all are being taken to protect the Lakes. We need to treat AIS as a common enemy. Every approach that could be taken is a possible battle to be won.

We need a ratified international convention that reduces the rate AIS are moved around the world. We need to be able to exceed such a convention nationally and regionally. We need a coordinated binational approach. We need the strongest possible national legislation in the United States—right now that is NAISA—and we need it passed and enforced immediately. We need Canada to start using the many authorities it has available. We need lawyers, the IJC and citizens to push both countries to do much more with what authorities they have. We need to demand that ships carry liability insurance. We need the region's states and provinces to stick their fingers in the dike with a variety of local solutions until better, consistent international and national enforcements emerge. We need new, profitable ways of moving goods that both resolve the ship vector and address other significant tensions from commercial navigation.

We don't know which strategic move will turn this tide. We must remain unified against the permanent destruction of the Great Lakes because the lakes are our way of life.

Let's put it all on the table. In a matter of decades, the integrity of the Great Lakes, which took tens of thousands of years to create, is being erased by our inability to change course. This is *our* responsibility; our children will not have the opportunity to make the decisions that we have before us. We must get past the illusion that the appearance of motion without actual substantive change is good enough. We have the power to do more. It is essential that we identify and implement actions which will actually make progress right now.

Thank you for the opportunity to speak before you today.