Straight talk needed in ballast water debate

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Depending on whom you listen to, you might not know that the governments of the United States and Canada and the shipping industry are working hard to protect the Great Lakes from non-indigenous species (NIS). More effective ballast water management practices, cutting-edge research into new treatment technologies, and strengthened enforcement are current efforts that are dramatically reducing the risk of introducing NIS into the Great Lakes.

Since 2006, it has been a mandatory requirement under Canadian law for Canada-bound ships to conduct saltwater flushing in all their ballast tanks before entering the Seaway. Transport Canada, the U.S. Coast Guard, and the Canadian and U.S. Seaway Corporations collaborate to inspect the salinity levels of these ships' ballast tanks in Montreal, thus catching potential invasives *before* they enter the Great Lakes. And just last week, we announced a new regulation to require all ocean-going ships entering the U.S. sector of the Seaway to saltwater flush ballast tanks containing residual amounts of water or sediment. In addition, the U.S. and Canadian Seaway Corporations have also proposed increased inspections and requiring vessels to better measure and document the salinity levels of their tanks.

Saltwater acts as a natural biocide against fresh water organisms found in ballast water. A recent study led by the National Oceanic and Atmospheric Administration Great Lakes Environmental Research Laboratory and the University of Michigan examined sediments and residual water contained in ballast tanks that had been flushed with full-strength seawater. Significantly, the study found that this practice is a "highly effective" method for eradicating potential NIS. The saltwater flushing process reduced zooplankton by 99 percent and benthic invertebrates by close to 100 percent. Even zebra mussels were killed by this saltwater treatment. It is this practice of open-ocean, saltwater flushing that would become mandatory under the proposed Seaway regulation.

One would think these efforts would have been quickly embraced and widely promoted. Unfortunately, many in the environmental community, and the press, have chosen to continue pushing the hyperbole button and claim that little is being done to protect the Great Lakes. Their reaction to another new study is indicative of their rush to judgment.

The study, entitled: "Rate of species introductions in the Great Lakes via ships' ballast water and sediments," was undertaken by professors J.M. Drake and D.M. Lodge of the University of California and the University of Notre Dame, respectively. Several recent articles describing the study assert that "in less than two years scientists found 13 new, potentially invasive species in the ballast water tanks of just 41 vessels entering the Great

Lakes, and that none of the 13 had previously been found in those waters." This certainly sounds ominous, but the study based its conclusions on ballast tank samples taken between 2000 and 2002 – well before the new Canadian saltwater flushing requirements went into place in 2006. Moreover, while the authors did indeed identify 13 organisms not previously found in the Great Lakes, they did not identify – because their study was not designed to do so – whether any of the 13 organisms were *alive* and therefore able to live and reproduce in the Great Lakes.

It's time to stop the hype and start implementing the ballast water practices we know are effective. With implementation of the Seaway's new proposed regulation, we'll do just that. The shipping industry and the governments of the United States and Canada are working effectively to prevent the introduction of organisms that might harm the Great Lakes. From the rhetoric surrounding this issue, one might never know it.