



Freshwater value

Inconsistent environmental regulations create murky waters for Great Lakes shipping

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It is no secret to the readers of *Great Lakes/Seaway Review* that the Great Lakes and its connected tributaries are a freshwater system of tremendous importance to the region on both sides of the international border, and arguably the world.

The five Great Lakes—Superior, Huron, Michigan, Erie and Ontario—span a total surface area of 94,600 square miles and are connected by a variety of lakes and rivers, making them the largest freshwater system in the world.

The importance of this waterbody has been the subject of increased awareness by a wide range of stakeholders for the last few decades—commercial users, recreational users, federal, state, provincial and tribal authorities, as well as numerous environmental groups. These stakeholders need to have a unified approach on how we collectively take care of and protect this waterway that is strategically important and a valuable resource that many depend on for our livelihood.

Although the Great Lakes are of an enormous scale, they are extremely sensitive to pollutants. One major reason is that the outflow of water from the Great Lakes is relatively small, less than 1 percent per year, according to the U.S. Environmental Protection Agency (EPA), in comparison with the total volume of water. Therefore, pollutants that enter the Lakes, whether from Canadian or U.S. waters, are retained in the system and become more concentrated over time. These pollutants include toxic chemicals from industrial facilities, nutrients from farm fertilizers, waste from cities, invasive species and habitat degradation caused by increased human interaction with the Lakes, both recreational and commercial.

A vast array of oversight

Environmental compliance within the Great Lakes has always been a compli-

cated scenario.

Ships and shipowners must navigate through a plethora of Canadian and U.S. federal requirements, including the U.S. Coast Guard, Canadian Coast Guard, EPA, Transport Canada and Environment Canada, as well as individual U.S. state and Canadian provincial regulations. Also, let's not forget the nearly 40 Tribal Nations, plus more than half a dozen major metropolitan areas and dozens of county and local governmental authorities who add their voices and their laws to the mix on subjects like air quality, water quality, invasive species, bio-fouling and contaminated sediments, to name a few.

Zeroing in on ballast water

Navigating these requirements is becoming an increasingly difficult task for shipowners and ship designers. By way of example, let's look at ballast water to illustrate the complexity.

Ballast water management in the Great Lakes was initially straightforward and clear. Due to the zebra mussel outbreaks in 1985/86, the U.S. and Canada developed the first consistent program requiring ballast water exchange for international ships entering the Great Lakes.

Vessels operating only in the Great Lakes were not required to manage ballast water discharges. As Canada became signatory to the IMO's Ballast Water Management Convention and the U.S. EPA developed the Vessel General Permit (VGP), passage through the Great Lakes became more complicated.

While the U.S. Coast Guard did not require vessels operating only in the Great Lakes to meet its ballast water discharge standards in 33 CFR 151 Subpart C, the U.S. EPA required lakers built after 2009 to meet ballast water discharge standards. Since 2009, the few new lakers built or which underwent "major conversions"

have struggled with identifying the best ballast water management system (BWMS) solution for operating in the Great Lakes.

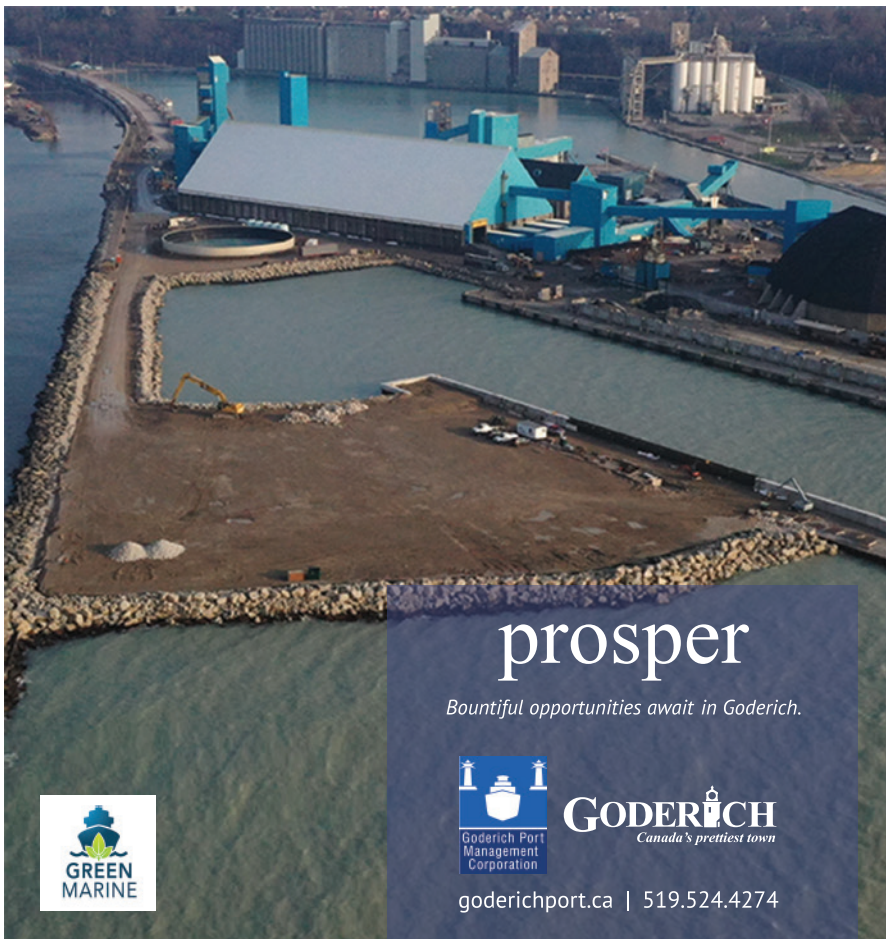
In June 2019, Transport Canada proposed new ballast water regulations in the Canada Gazette Part 1 to make effective Canada's commitment to the International Convention for the Control and Management of Ship's Ballast Water and Sediments, 2004 (BWM Convention). These regulations implemented treatment requirements for internationally operated Canadian-flagged ships under the BWM Convention and expanded the requirement to vessels that load or discharge ballast water in any Canadian waters, including the previously exempt Great Lakes.

In short, all ships loading or offloading ballast water in Canadian waters within the Great Lakes would be required to achieve the ballast water performance standards by September 8, 2024—even if they are not discharging ballast water. As the IMO's BWM Convention is actually a discharge standard, it is impossible to understand the Canadian government's logic here.



This expanded ballast water management requirement would result in U.S.-flagged lakers being required to install a BWMS, even if no discharge of ballast water would occur in Canadian waters.

The Lake Carriers' Association (LCA) has been trying to resolve this issue through discussions with Transport Canada; but in June 2020, the U.S. Federal Maritime Commission initiated an investigation based on a petition filed by the LCA claiming that the actions taken by the Government of Canada are unfavorable to U.S./Canada shipping trade.

The latest move in this complicated relationship occurred on October 26, 2020 when the U.S. EPA published its Notice of Proposed Rulemaking for performance standards for the Vessel Incidental Discharge Act. The EPA is



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proposing that lakers, regardless of age, that operate solely in the Great Lakes, would be exempt from treatment of ballast water due to the difficulties in treating water of the Great Lakes. The EPA is also soliciting for public comment on a possible exemption for ballast water treatment for ships that predominantly operate in the Great Lakes.

Now all await how Transport Canada will respond when publishing the final Canadian ballast water regulations, which are expected to occur by the end of 2020.

Both Transport Canada and the EPA mention the difficulty in treating the “murky” water of the Great Lakes but failed to interact with shipowners and other stakeholders to develop a uniform approach.

The recent actions by the EPA and Transport Canada illustrate the need for improved communication and cooperation among regulatory agencies and the shipping community to ensure consistent environmental programs in shared waters. Both Transport Canada and the EPA mention the difficulty in treating the “murky” water of the Great Lakes but failed to interact with shipowners and other stakeholders to develop a uniform approach.

Some shipowners were forced to install BWMS on Great Lakes vessels and are now at an economic disadvantage to the competitors that will be exempt.

The Great Lakes are the largest freshwater body by size on the earth and the second largest by volume, providing 21 percent of the earth's freshwater. This vital waterbody provides billions of dollars to the economy by way of jobs, shipping and fishing industries, recreation and tourism. It's hard to imagine a more important freshwater resource.

Regulators need to listen to all parties and evaluate options to protect this critical and historic waterbody through a consistent approach. Shipowners and other interested stakeholders need to be engaged in the legislative process to inform regulatory agencies and help shape their path forward to fair and equitable policies and laws; and regulators at all levels need to be open to the voices and concerns of the stakeholders that they govern. ■