rest of the world.

Governors in Indiana, Ohio and Wisconsin say New York's new rules will close these opportunities.

The state's discharge standard is incompatible with current ballast water treatment technologies, the governors wrote in a letter last year to New York Gov. Andrew Cuomo, and will "possibly force the closure of the St. Lawrence Seaway and imperil thousands of maritime-related jobs."

That letter prompted Mason's letter to New York.

Since the seaway began operating in 1959, more than 2.5 billion metric tons of goods valued at more than \$375 million have been moved through it. A 2011 study done on behalf of the Great Lakes shipping industry estimated that the economic activity related to the seaway supports 227,000 jobs in the region.

Over the past half-century, the ballast water of ocean-going ships has been the leading source of nonindigenous species introductions in the Great Lakes, and is the cause of notorious invaders such as the zebra mussel and round goby entering the freshwater system.

States have responded by adopting mandatory ballast water treatment programs and discharge standards. Michigan established the first state-level permitting program in 2005; other states have since followed.

"States like New York have basically said, 'We are not going to tolerate this source of pollution anymore, and we're going to try and figure out how to deal with it,'" said Joel Brammeier, president and CEO of the Alliance for the Great Lakes. "One way to deal with it is through the rapid development of (ballast water) technology, in order to achieve a standard to protect the Great Lakes."

The idea is to establish a standard of

treatment that reduces the number of viable organisms in ballast water discharges. But as Brammeier noted, "States are not of one mind on this issue."

The letters written by Mason and the three governors illustrate this divide.

Still, some lawmakers would like the eight Great Lakes states to find consensus on a uniform discharge standard for ballast water.

In late 2011, the Michigan Legislature passed a package of bills that in part call on the state's Department of Environmental Quality to lead such an effort.

The legislative package, sponsored by Sen. Howard Walker, also establishes a 19-member Aquatic Invasive Species Advisory Council, which will revise Michigan's laws, regulations and programs, as well as update the state's Aquatic Invasive Species Management Plan.

The Federal Response

Meanwhile, New York's proposed rules have prompted a strong response from some federal lawmakers. In late 2011, the U.S. House passed legislation stripping states of their authority to create ballast water regulations stronger than those at the federal level.

The same measure would establish a federal ballast water discharge standard that is the same as the one set by the United Nations' International Maritime Organiza-

tion, known as the IMO. As of early 2012, not enough member countries had ratified the IMO standard to be enforced.

New York's pending discharge standard is 100 times more stringent than the UN standard for existing vessels.

In contrast, states such as Minnesota and Wisconsin have established ballast water programs using the IMO standard. And both the U.S. Environmental Protection Agency and U.S. Coast Guard are moving ahead with plans to tie a federal standard to the IMO standard.

While a discharge standard remains a priority for many, some past actions have helped in the fight against invasive species. Starting in 2006, all overseas vessels entering the Great Lakes were required to conduct saltwater flushing and ballast water exchanges. Since then, there have been no reports of invasive species entering the lakes via ocean-going vessels.

But there are limits to the efficacy of these practices in preventing the introduction of invasive species.

The IMO standard adds another layer of protection to these existing practices. States such as New York and California have decided that even this standard is not enough, while others say anything above it simply is not feasible.



"(Invasive species) affect our quality of life. And once they're here, there is no redoing it. They're here permanently."

---Wisconsin Rep. Cory Mason