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## BILL ANALYSIS



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Senate Bill 332 (Substitute S-4 as passed by the Senate)  
Sponsor: Senator Patricia L. Birkholz  
Committee: Natural Resources and Environmental Affairs

Date Completed: 4-25-05

**RATIONALE**

Aquatic nuisance species (ANS) are waterborne, non-native organisms that can threaten the diversity or abundance of native species; damage the ecological stability of affected waters; and jeopardize commercial, agricultural, aquacultural, and recreational activity. These species have the potential to cause significant environmental, economic, and public health problems because they have been introduced to a habitat in which there are not natural controls, such as predators, parasites, pathogens, and competitors. They can crowd out native species, alter habitats, change predator/prey relationships, and transmit foreign disease or parasites. They also can cause such problems as food chain disruption, reduced biodiversity, clogging of water intakes, and increased weed growth. Furthermore, measures to eliminate ANS from an ecosystem are costly and sometimes result in more harm.

Ballast water discharge by ships is the most significant source of unintentional introduction of ANS to the Great Lakes. Ships take on ballast water for stability when they are not filled with cargo. When drawing in ballast water in one port, ships may pick up live organisms. As the ships are loaded with cargo in the Great Lakes ports, ballast water is discharged, releasing the live organisms into the lakes. It has been reported that non-native species currently are being introduced at the rate of one new species every eight months. In light of the adverse effects of non-native invasive species in the Great Lakes Basin, it has been suggested that the State should regulate ballast water discharges by oceangoing vessels, and that an interstate coalition to control ANS should be created.

**CONTENT**

**The bill would amend Part 31 (Water Resources Protection) of the Natural Resources and Environmental Protection Act to do the following:**

- Require the Department of Environmental Quality (DEQ) to facilitate the formation of an interstate "Great Lakes Aquatic Nuisance Species Coalition" to implement water pollution laws that prohibit the discharge of aquatic nuisance species into the Great Lakes.**
- Provide that an unauthorized ballast water discharge would be prima facie evidence of a violation of Part 31 and would subject the responsible person to penalties prescribed in the Act.**
- Require all oceangoing vessels engaging in port operations to obtain a permit from the DEQ beginning January 1, 2007, and prescribe a permit fee.**
- Require a permit applicant to demonstrate that the vessel would not discharge ANS, or, if the vessel would discharge ballast water or other waste or waste effluent, that the vessel operator would use environmentally sound technology and methods to prevent the discharge of ANS.**
- Allow the DEQ to promulgate rules to implement the bill's permit provisions.**

The bill is described below in further detail.

## Great Lakes Aquatic Nuisance Species Coalition

The bill would require the DEQ to facilitate the formation of a Great Lakes Aquatic Nuisance Species Coalition in order to address ANS discharges from oceangoing vessels that damage water quality, aquatic habitat, or fish or wildlife. The Coalition would have to be formed through an agreement entered into with other states in the Great Lakes Basin to implement on a Basin-wide basis water pollution laws that prohibit the discharge of ANS into the Great Lakes from oceangoing vessels. The DEQ would have to seek to enter into an agreement that would take effect by January 1, 2007. Before entering into the agreement, the DEQ would have to consult with the Department of Natural Resources. Upon entering into the agreement, the DEQ would have to notify the Canadian Great Lakes provinces of the agreement's terms. The DEQ would have to seek funding from the Great Lakes Protection Fund to implement the Coalition.

The bill also would add the control of ANS to the scope of the DEQ's functions. Currently, the Department is designated the State agency to cooperate and negotiate with other governments, governmental units, and governmental agencies in matters concerning the State's water resources, including flood control, beach erosion control, and water quality control, planning, development, and management.

### Injurious Discharge

Part 31 prohibits a person from directly or indirectly discharging into the State's waters a substance that is or may become injurious to any of the following:

- The public health, safety, or welfare.
- Domestic, commercial, industrial, agricultural, recreational, or other uses that are being made or may be made of such waters.
- The value or utility of riparian lands.
- Livestock, wild animals, birds, fish, aquatic life, or plants, or their growth or propagation.
- The value of fish and game.

The bill specifies that, unless a discharge were authorized by a permit, order, or rule of the DEQ, a discharge into Michigan waters from an oceangoing vessel of any ballast

water would be prima facie evidence of a violation and would subject the responsible person to the penalties prescribed in Section 3115. (Prima facie evidence is evidence sufficient to establish a given fact unless it is rebutted or contradicted.)

(Under Section 3115, the DEQ may request the Attorney General to commence a civil action for appropriate relief for a violation of the Act or a provision of a permit or order issued or rule promulgated under the Act. In addition to any other relief, the court must impose a civil fine of at least \$2,500 and may award reasonable attorney fees and costs to the prevailing party. The maximum fine the court may impose is \$25,000 per day of violation.

Additionally, a person who at the time of the violation knew or should have known that he or she discharged a substance contrary to the Act, or contrary to a permit, order, or rule, is guilty of a felony and must be fined between \$2,500 and \$25,000 for each violation. The court may impose an additional fine of up to \$25,000 for each day the unlawful discharge occurred. For a subsequent conviction, the court must impose a fine of between \$25,000 and \$50,000 per day of violation. The court also may sentence the defendant to imprisonment for up to two years or impose probation.

If the court finds that a civil defendant's actions pose or posed a substantial endangerment to the public health, safety, or welfare, the court must impose an additional fine of between \$500,000 and \$5.0 million. If the court finds that a criminal defendant's actions pose or posed a substantial endangerment to the public health, safety, or welfare, the court must impose an additional fine of at least \$1.0 million and a sentence of five years' imprisonment.)

### Oceangoing Vessel Permit

Beginning January 1, 2007, the bill would require all oceangoing vessels engaging in port operations in Michigan to obtain a permit from the DEQ. The Department could issue a permit for an oceangoing vessel only if the applicant could demonstrate that the vessel would not discharge ANS or, if the vessel discharged ballast water or other waste or waste effluent, that the vessel's operator would

use environmentally sound technology and methods, as determined by the DEQ, to prevent the discharge of ANS.

The DEQ would have to cooperate to the fullest extent practical with other Great Lakes Basin states, the Canadian Great Lakes provinces, the Great Lakes Panel on ANS, the Great Lakes Fishery Commission, the International Joint Commission, and the Great Lakes Commission to ensure the development of standards for ANS control that were broadly protective of the State's waters and other natural resources.

Permit fees would have to be assessed as provided in Section 3120. (That section requires the DEQ either to grant or deny a National Pollutant Discharge Elimination System (NPDES) permit within 180 days after receiving a complete application for a new or increased use permit. The DEQ must grant or deny a permit by September 30 of the year following the submission of a complete application for the reissue of a permit. If the Department fails to make a decision within the applicable time period, it must return the application fee to the applicant. In that case, the applicant is not subject to an application fee and must receive a 15% annual discount on a required annual fee for a permit issued based upon that application.)

Under the bill, the permit fees would be the same as those set in Section 3120 for specific permits. For an individual permit, the application fee would be \$750 and the annual permit fee would be \$8,700. For a general permit, the application fee would be \$75 and the annual permit fee would be \$150. (These are the fees prescribed in Section 3120 for an Environmental Protection Agency (EPA) major facility permit and an EPA minor facility permit, respectively. A "major facility" is any NPDES facility or activity classified as such by an EPA Regional Administrator. A "facility or activity" is any NPDES point source or any other facility or activity that is subject to regulation under the NPDES program. A "minor facility" is a facility that is not a major facility.)

Under Section 3120, an "individual permit" is a permit developed for a particular facility, taking into account that facility's specific characteristics. A "general permit" is a

permit suitable for use at facilities meeting eligibility criteria as specified in the permit.)

#### Rules Promulgation

The bill would authorize the DEQ to promulgate rules to implement the proposed provisions related to permits for oceangoing vessels.

Currently, the DEQ may not promulgate new rules under Part 31 after December 31, 2006. The bill would make an exception for rules authorized under the bill.

MCL 324.3103 et al.

#### **BACKGROUND**

In 1972, the U.S. Congress amended the Clean Water Act (CWA) to prohibit the discharge of any pollutant from a point source into navigable waters of the United States without a National Pollutant Discharge Elimination System permit. Under the CWA, the term "point source" includes a vessel or other floating craft, and the term "pollutant" includes biological materials. The CWA exempts from the definition of "pollutant" any sewage from vessels or a discharge incidental to the normal operation of a vessel of the Armed Forces.

The CWA grants the Environmental Protection Agency primary authority to implement and enforce the statute. Using this authority, the EPA issued a regulation (40 CFR 122.3(a)) exempting any discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, or *any other discharge incidental to the normal operation of a vessel* from the NPDES permit requirement. Under this regulation, the discharge of ballast water does not require an NPDES permit.

In January 1999, Northwest Environmental Advocates, the Ocean Conservancy, and Waterkeepers Northern California and its projects, Center for Marine Conservation and San Francisco Baykeeper and Deltakeeper, filed a petition with the EPA requesting the Agency to repeal the regulation on the ground that it conflicted with the CWA, which does not specify that a "discharge incidental to the normal operation of a vessel" is exempt from the NPDES permit requirement. The EPA denied the petition in

2003, and the organizations filed a complaint in the United States District Court for the Northern District of California. The plaintiffs claimed that the EPA overstepped the authority granted to it under the CWA in implementing the regulation, and that its denial of the petition was "arbitrary, capricious, and an abuse of discretion given the CWA...".

The Court agreed with the plaintiffs that the plain language of the CWA explicitly directs the EPA to form permit requirements for discharges incidental to the normal operation of a vessel, which includes ballast water. The Court determined that the two exemptions specified in the statute do not apply to ballast water discharges from nonmilitary vessels into the nation's navigable waters, and that it was the clear intent of Congress to require an NPDES permit before a vessel may discharge pollutants.

The Court disagreed with the EPA's argument that because Congress repeatedly had addressed vessel discharges in the approximately 30 years since the regulation was issued, but did not revise or repeal it, Congress acquiesced to the Agency's interpretation and agreed with the construction of the regulation. According to the Court's reasoning, the other statutes enacted to address vessel discharges specifically prevented preemption of the CWA. Additionally, Congress did not discuss the issue of incidental discharges when it made amendments to the CWA, nor did it reject legislation overturning the EPA's regulation. The Court concluded that the EPA did not demonstrate the necessary "overwhelming evidence of acquiescence" by Congress regarding the permit exemption.

The Court's opinion, issued March 30, 2005, states that, since Congress has "directly spoken" in the CWA and unambiguously requires vessels discharging pollutants to obtain NPDES permits, and Congress did not acquiesce to the EPA's regulation, the EPA acted in excess of the authority granted to it under the CWA. The Court granted the plaintiffs' motion for summary judgment and ordered the EPA to repeal the regulation. To date, the EPA has not done so.

## **ARGUMENTS**

*(Please note: The arguments contained in this analysis originate from sources outside the Senate Fiscal Agency. The Senate Fiscal Agency neither supports nor opposes legislation.)*

### **Supporting Argument**

The negative impact of aquatic nuisance species on the health and economy of the Great Lakes is considered by many experts to be the most serious threat to the quality of the Great Lakes ecosystem. Once introduced into the Great Lakes, where they have no effective natural predators, ANS are impossible to eradicate and difficult to control. They often can flourish in a broad range of environmental conditions and have a high reproductive capacity. Through competition with and predation of native species, feeding habits, and the release of foreign pathogens, aquatic invaders have upset the environmental balance of the Great Lakes and caused unprecedented, potentially devastating change.

The environmental changes and food web disruptions caused by ANS threaten Michigan's water-based recreational and tourist activity, a critical component of the State's economy. Michigan has more registered boats than any other state, and, as the home of 20% of the world's freshwater, provides excellent fishing opportunities to many people, both residents and nonresidents, every year. The effects of ANS, however, are threatening the State's \$4.5 billion fishing industry. Additionally, the sight and odor of decaying organisms on the State's beaches, or toxic algae blooms resulting from the presence of an invasive species, can deter people from visiting, and in some cases even result in beach closures.

An invasive species of particular concern in the Great Lakes region is the zebra mussel. In Great Lakes Basin states, the cost to address problems caused by zebra mussels was \$3.0 billion from 1993 to 2003. Adult zebra mussels can anchor themselves to various firm surfaces, such as lakebeds, rocks, native mussel colonies, boat hulls, buoys, and facilities of municipal water systems, utilities, and manufacturing operations. It is estimated that municipalities and large industries in the Great Lakes region each pay an average of \$360,000 per year to control zebra mussels.

Zebra mussels also are thought to be responsible for the dramatic decline of the *Diporeia* population. This species of tiny shrimp-like creatures constitutes 80% of the Great Lakes food web. Since 1990, the *Diporeia* population has plummeted, in many areas, from 10,000 per square meter to almost none. The other three species that account for the majority of the rest of the food web also are at risk due to exotic invaders. In turn, native fish populations, such as lake trout, walleye, yellow perch, and whitefish, are threatened. Since zebra mussels were first discovered in Lake St. Clair in the 1980s, they have spread to other parts of the United States, down the Mississippi River and into an estimated 350 lakes and ponds. The seriousness of the consequences of a zebra mussel presence is magnified when one considers that the zebra mussel is just one of the approximately 170 non-native species that have been introduced into the Great Lakes and Michigan's inland lakes.

Clearly, ANS have devastating environmental, aesthetic, and economic effects on the State. Once a non-native invasive species has entered the State's waters, it is nearly impossible to eliminate. For this reason, the State must take action to stop new species from entering the Great Lakes ecosystem. The bill's focus on prevention represents a prudent approach that would be inexpensive compared with the long-term costs of new invasive species.

**Response:** It is possible that the bill could be challenged on the grounds that it violates the Interstate Commerce Clause and the Supremacy Clause of the U.S. Constitution.

### **Supporting Argument**

The current Federal regulations and enforcement measures are inadequate to regulate ballast water and to stop the introduction of ANS. If the EPA appeals the U.S. District Court's decision ordering the Agency to repeal the permit exemption for ballast water discharges, it could be years before the case finally is resolved. If the EPA does begin to implement the regulation of ballast water discharges, either in response to the recent court order or due to an order of a higher court in the future, the rule-making process also could take years. Immediate and cooperative efforts at the regional level, such as the Great Lakes ANS Coalition proposed by the bill, are needed to

avoid mounting environmental and economic costs. A regional coalition would enable Basin states to share resources and avoid duplicative efforts, and perhaps provide a stimulus for effective action at the Federal level.

### **Supporting Argument**

The bill would help reduce the threat of new ANS by requiring vessel operators to obtain a permit and treat their ballast water before discharging it. Even if a vessel operator claims that there is no ballast water on board the ship, residual sludge left from previous discharges can contain organisms that find their way into the State's waters. Though the bill would require the operator of an oceangoing vessel that discharged ballast water to use an environmentally sound technology or method to prevent the discharge of ANS, it would allow operators to determine which technology or method they would use. Approximately 20 different ballast water treatments have been developed to prevent the discharge of ANS, giving oceangoing vessel operators the flexibility to choose a method that would be the most practical and economically sound. Presumably, other states in the proposed coalition would adopt similar permit requirements, helping to stop the spread of ANS throughout the Great Lakes region.

Legislative Analyst: Julie Koval

### **FISCAL IMPACT**

The creation and facilitation of a Great Lakes Aquatic Nuisance Species Coalition would increase administrative costs for the Department. The bill identifies the Great Lakes Protection Fund for this purpose. The Fund balance and annual revenue are anticipated to be insufficient to support the current appropriation of \$2.5 million for research grants and administration. The new purpose would put additional strain on this Fund source.

The bill would establish a new permit program for oceangoing vessels engaging in port operations to be administered by the Department. An individual permit would require an application fee of \$750 and an annual fee of \$8,700. A general permit to discharge would require an application fee of \$75 and an annual fee of \$150. Actual revenue collection would depend on the

number of vessels, the level of compliance, and enforcement actions required.

The bill would expand what constitutes an illegal discharge into waters of the State. This could result in additional civil and criminal fines from increased violations, as well as increased costs to the correctional system. Civil fines are deposited into the General Fund and criminal fines benefit local libraries.

Fiscal Analyst: Jessica Runnels

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This analysis was prepared by nonpartisan Senate staff for use by the Senate in its deliberations and does not constitute an official statement of legislative intent.