Penn State Environmental Law Review

Volume 18 | Number 1 Article 5

9-1-2009

Protecting U.S. Waters from Nonindigenous Species Invasion: A Case for Federalism and Strong State Regulation

Samuel H. Wiest

Comments

Protecting U.S. Waters from Nonindigenous Species Invasion: A Case for Federalism and Strong State Regulation

Samuel H. Wiest*

I. INTRODUCTION

Shipping vessels take on ballast water to improve their stability and balance under various cargo conditions. Ballast water is pumped into large tanks at the bottom of a ship when there is little cargo aboard and is pumped out of these tanks in proportion to the weight of cargo loaded.[1] Ballast water is essential for the safe operation of vessels,[2] but, as an

* J.D. Candidate, The Pennsylvania State University, The Dickinson School of Law, 2011; M.I.A Candidate, The Pennsylvania State University, The School of International Affairs, 2011; B.A., Brigham Young University, 2007. I owe a great deal to Dr. John D. Rothlisberger for introducing me to the topic of this comment and providing essential scientific and editorial support. Special thanks to Leisa for her unwavering support and encouragement.

1. Elizabeth Dunbar, *Minn. Considers Rules for Ballast Water Discharge*, ASSOCIATED PRESS (MINNEAPOLIS), September 23, 2008.

2. "Vessel" is defined as "every description of watercraft or other artificial contrivance being used as a means of transportation on water." U.S. EPA, VESSEL GENERAL PERMIT FOR DISCHARGES INCIDENTAL TO THE NORMAL OPERATION OF VESSELS (December 19, 2008), at 113, *available at* http://www.epa.gov/npdes/pubs/vessel_vgp_permit.pdf [hereinafter EPA GENERAL PERMIT].

unintended consequence of global commerce, it also serves as a pathway for the movement of aquatic species far beyond their native range.[3] Thus, with the discharge of ballast water at ports of call, organisms or their resting stages may be introduced into novel environments. In some cases these new environments are habitable for the introduced species, but are also markedly different from the environment where they originated. For example, an introduced species may enter an ecosystem where its natural enemies (i.e., predators and parasites) are absent or where a previously limiting resource (e.g., prey) is abundant.[4] Under these circumstances, populations of introduced organisms may thrive, possibly altering the structure and functioning of the ecosystems they colonize. Some of these colonizing non-native species will have net negative ecological or economic impacts and are known as aquatic nuisance species (ANS). Formally, ANS are defined as "nonindigenous species that threaten[ ] the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural or recreational waters dependent on such waters."[5]

Populations of at least 185 ANS are established in the Great Lakes[6] and it has been estimated that ANS have cost $1.5 billion since 1998[7] and now cost approximately $200 million annually.[8] This phenomenon is not unique to the Great Lakes, and the cost of ANS nationally is estimated to be $137 billion annually.[9] Some of these costs arise from ANS monitoring and research, but the bulk are associated with the damage ANS cause to the ecosystems they invade.[10] Damages include altering the food webs upon which valuable sport and commercial fish

3. *See* J.T. Carlton and J. B. Geller, *Ecological Roulette: The Global Transport of Nonindigenous Marine Organisms*, 261 SCI. 78 (1993).

4. *See* C.E. Mitchell and A.G. Power, *Release of Invasive Plants from Fungal and Viral Pathogens*, 421 NATURE 625 (2003).

5. 16 U.S.C. § 4702(1) (2006).

6. A. Ricciardi, *Patterns of Invasion in the Laurentian Great Lakes in Relation to Changes in Vector Activity*, 12 DIVERSITY AND DISTRIBUTIONS 425 (2006). *See also* U.S. EPA, NATIONAL CENTER FOR ENVIRONMENTAL ASSESSMENT, PREDICTING FUTURE INTRODUCTIONS OF NONINDIGENOUS SPECIES TO THE GREAT LAKES, at 1 (2008), *available at* http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=490155 [hereinafter EPA REPORT].

7. Letter from Henry Henderson, *et. al*, to Senator Herb Kohl (July 28, 2008), *available at* http://www.jsonline.com/graphics/multimedia/media/jul08/ballast_kohl_072608.pdf.

8. DAVID LODGE and DAVID FINOFF, *Annual Losses to Great Lakes Region by Ship-borne Invasive Species at least $200 Million* (July 2008), *available at* http://www.glu.org/sites/default/files/lodge_factsheet.pdf.

9. David Pimentel, Lori Lach, Rodolfo Zuniga, and Doug Morrison: *Environmental and Economic Costs Associated with Non-indigenous Species in the United States*, 50 BIOSCIENCE 53 (Jan. 2000), *available at* http://people.hws.edu/bshelley/Teaching/PimentelEtal00CostExotics.pdf.

10. LODGE and FINOFF, *supra* note 8.

species depend, fouling beaches, and clogging water intakes.[11] Some tallies indicate that cumulative spending on the removal of zebra mussels, an ANS poster child, from the cooling water intakes of power plants and other infrastructure has reached $1.5 billion.[12]

Federal action on ANS issues has been slow and halting, most often advancing only as the result of prodding from environmental activist groups or court orders. The first federal legislation was the 1990 Nonindigenous Aquatic Nuisance Prevention and Control Act ("NANPCA").[13] NANPCA's purpose is "to prevent unintentional introduction and dispersal of nonindigenous species into waters of the United States through ballast water management and other requirements."[14] Under NANPCA, the U.S. Coast Guard has issued ballast water regulations,[15] but these regulations have been slow to develop and have been criticized as not strict enough and largely ineffective by environmental groups and lawmakers.[16] Additionally, despite its passage in the House of Representatives,[17] a bill that would have increased the Coast Guard's enforcement authority over ballast water regulation stalled in the Senate in late 2008 and is unlikely to go anywhere soon.[18]

Another example of the federal government's lack of aggressive ballast water regulation has come from the EPA under the Clean Water Act (CWA). The EPA exempted ballast water dischargers[19] from obtaining a National Pollutant Discharge Elimination System permit ("NPDES") under the CWA[20] from 1973 until early 2009.[21] This changed when a 2008 decision from the 9th Circuit Court of Appeals ruled that the EPA could no longer exempt ballast water discharges from

---

11. *Id.*

12. Dan Egan, *Turning Tide on Invasive Species: Top Scientists to Study Ways to Stop Intruders on St. Lawrence Seaway*, MILWAUKEE J. SENTINEL, Nov. 13, 2005, at 1A. *See also* EPA REPORT, *supra* note 6, at 5. Zebra Mussels were found in the great lakes in the 1980's and have spread throughout all the lakes and in many freshwater systems throughout the Midwest and northeast, including recently being found in the Susquehanna river, thus being a threat of invading the Chesapeake Bay. *See* Karl Blankenship, *Zebra Mussels Found in Lower Susquehanna*, BAY J. (Seven Valleys, PA), January 2009, *available at* http://www.bayjournal.com/article.cfm?article=3488.

13. 16 U.S.C. § 4701 *et seq.* (2006).

14. 16 U.S.C. § 4701(b)(1) (2006).

15. 33 C.F.R. 151.1500 *et seq.* (2009).

16. Dan Egan, *After Ruling, Lakes Still Face Great Risks*, MILWAUKEE J. SENTINEL, June 29, 2008, *available at* http://www.jsonline.com/news/wisconsin/29572009.html.

17. 154 CONG. REC. D496-01 (2nd Sess. 2008).

18. Mike Simpson, *Shippers: Ballast Bill Boxed up by Sen. Boxer*, BUS. N. (Duluth, MN), Sept. 9, 2008, *available at* http://www.businessnorth.com/kuws.asp?RID=2490.

19. 40 CFR § 122.3(a) (2008).

20. 33 U.S.C. § 1342 (2006).

21. *See* NPDES, 38 Fed. Reg. 13,528, 13,530, (May 22, 1973).

NPDES permits under the CWA.[22] As a result of this decision, the EPA issued a new NPDES permit for ballast water discharges.[23]

Over more than thirty years of inconsistent, unclear, and arguably inefficient ballast water regulation, many states, particularly California, Michigan, and more recently Minnesota, have instituted their own ballast water discharge regulations. The differing schemes in these states have been tailored to their unique desires and circumstances. While the ability to customize legislation and policy to their own conditions may be attractive to states, the prospect of each state having its own ballast water laws is potentially onerous for the shipping industry. The burden of having a ship meet different standards and obtain multiple permits for each state where it wishes to dock could have serious adverse effects on the shipping industry.[24] Moreover, there is the possibility that ships will be required to install costly new on-board ballast water treatment technology to comply with various state regulations.

With both states and the federal government legislating ballast water regulations, federalism challenges may be presented. Such challenges were overcome in 2008 by Michigan's ballast water regulations when Michigan overcame constitutional challenges that its regulations were preempted by federal legislation and that they violated the dormant commerce clause.[25]

The purpose of this comment is to explain, analyze, and compare the ballast water regulations operating in the United States. The comment will first address federal regulations by examining U.S. Coast Guard regulations, the 2008 case *Nw. Envtl. Advocates v. EPA*[26] and its effect on the EPA, and H.R. 2830. Next, the comment will examine the state ballast water regimes of California, Michigan, and Minnesota, with special emphasis on how Michigan's regulations survived federal constitutional challenges in *Fednav v. Chester*.[27] Finally, the comment will briefly describe the new NPDES permit issued by the EPA.[28]

This comment will argue that, despite possible adverse effects on the shipping industry and the new NPDES permit, states are justified in continuing to legislate progressive ballast water discharge regulations. Strong state legislation is favorable for ballast water regulation for many reasons: (1) the lack of aggressive federal legislation necessitates state

22. *See* Nw. Envtl. Advocates v. EPA, 537 F.3d 1006 (9th Cir. 2008).
23. EPA GENERAL PERMIT, *supra* note 2.
24. *See, e.g.*, R.G. Edmonson, *Carriers Urge Consistent Ballast Water Regulation*, THE J. OF COM. ONLINE, Sept. 18, 2008.
25. *See* Fednav, Ltd. v. Chester, 547 F.3d 607 (6th Cir. 2008).
26. Nw. Envtl. Advocates v. EPA, 537 F.3d 1006 (9th Cir. 2008).
27. Fednav, Ltd. v. Chester, 547 F.3d 607 (6th Cir. 2008).
28. EPA GENERAL PERMIT, *supra* note 2.

action; (2) the ability of each of the states to legislate regulations that will more aptly fit each states' individual needs and desires is beneficial; and (3) the classic ability of the states to be an area of experimental laws has long-standing precedent.

One major reason why federal legislation has not moved to enforce either technology or performance standards for ballast water treatment is the cost to shipping firms. Allowing states leeway in creating their own legislation will provide incentive for more rapid technological advancements, and these innovations could in turn drive down the cost of ballast water treatment systems. Moreover, if states are willing to pay the possible economic price for protecting against ANS, they should be allowed to do so.

II. FEDERAL REGULATION

A. U.S. Coast Guard Regulation and the NOBOB Loophole

The Coast Guard's authority and responsibilities regarding ANS are found in the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 ("NANPCA").[29] The NANPCA required the Coast Guard to "issue regulations to prevent the introduction and spread of aquatic nuisance species into the Great Lakes through the ballast water of vessels."[30]

The Coast Guard issued the mandated regulations[31] in 1993. These regulations, which apply only to vessels traveling to the Great Lakes that carry ballast water from outside the exclusive economic zone ("EEZ"),[32] require that such vessels employ one of three "ballast water management practices": (1) carry out an exchange of ballast water on the waters beyond the EEZ to achieve a minimum ballast water salinity level of thirty parts per thousand; (2) retain the ballast water onboard the vessel; or (3) use an alternative environmentally sound method of ballast-water management that has been approved by the Coast Guard.[33]

The Coast Guard has explained that "[c]urrently, the most practical method of helping to protect the Great Lakes . . . is the exchange of ballast water in the open ocean, beyond the continental shelf," because organisms from the open ocean "will not, or are unlikely to, survive if

29. 16 U.S.C. § 4701 *et seq.* (1990).
30. 16 U.S.C. § 4711(b)(1) (1990).
31. 33 C.F.R. § 150.1500 *et seq.* (2009).
32. The EEZ is "the area established by Presidential Proclamation Number 5030 . . . which extends from the base line of the territorial sea of the United States seaward 200[nautical] miles." 33 C.F.R. § 151.1504 (2009).
33. 33 C.F.R. § 151.1510(a) (2009).

introduced into a freshwater system."[34] This position stands in contrast to scientific research that has "noted that organisms *can* survive [ballast water exchanges], and that [ballast water exchange] practices have not been completely effective in terminating the flow of [ANS] into the Great Lakes"[35] due to the potential damage that even small numbers of introduced organisms may eventually inflict.[36]

The Coast Guard has acknowledged the existence of other possible methods for cleaning ballast water, but has also stated there was "a lack of research and practical experience on the cost, safety, effectiveness, and environmental impact of these methods."[37] Thus, since 1993 the Coast Guard has not approved other methods to reduce the risk of ANS introduction by ships besides ballast water exchange.[38]

In 1996 Congress amended NANPCA and passed the National Invasive Species Act of 1996 ("NISA").[39] Under NISA, the Coast Guard is required to set up voluntary national guidelines for ballast water management in the waters of the United States, rather than just for the Great Lakes.[40] NISA also authorized the Coast Guard to make these regulations mandatory if the Coast Guard found that "effective compliance (as determined by the Secretary) with the guidelines issued . . . is inadequate."[41] The Coast Guard promulgated such mandatory guidelines,[42] which required ballast water exchanges, similar to those already in place for the Great Lakes,[43] but also added record keeping and reporting requirements.[44]

On their face, these regulations seem to be a satisfactory measure to prevent ANS introduction since all ships operating in waters of the U.S.

---

34. Ballast Water Management for Vessels Entering the Great Lakes, 58 Fed. Reg. 18,330 (Apr. 8, 1993).

35. EPA REPORT, *supra* note 6, at 9 (emphasis added). *See also* EPA REPORT, *supra* note 6, at 47 ("Despite the ballast water exchange (BWE), some ballast water and residue may remain and NIS may survive in the ballast tank and then potentially be released when the ballast water is discharged.").

36. For example, the dreissenid mussels (e.g., zebra mussel and quagga mussel), which, after being detected in Lake Erie in 1988, have spread throughout all of the Great Lakes and have even reached waters in Utah and California. *See, e.g.,* Dan Egan, *After Ruling, Lakes Still Face Great Risks*, MILWAUKEE J. SENTINEL, June 29, 2008, *available at* http://www.jsonline.com/news/wisconsin/29572009.html; Brett Prettyman, *Exotic Mussels Confirmed in Utah Waters*, THE SALT LAKE TRIB., Nov., 20, 2008.

37. Ballast Water Management for Vessels Entering the Great Lakes, 58 Fed. Reg. 18,330 (Apr. 8, 1993).

38. *See Fednav,* 547 F.3d at 611.

39. 16 U.S.C. § 4701 *et seq.* (2006).

40. 16 U.S.C. § 4711(c) (2006).

41. 16 U.S.C. § 4711(f) (2006).

42. 33 C.F.R. § 151.2000 *et seq.* (2009).

43. 33 C.F.R. § 151.2035 (2009).

44. 33 C.F.R. § 151.2041 (2009).

that carry ballast water are now required to perform a ballast water exchange. However, there is one large loophole: some vessels declare that they have no ballast on board ("NOBOB"). The Coast Guard's regulations apply only to vessels with ballast water on board.[45] The Coast Guard defines NOBOBs as vessels "that have discharged ballast water in order to carry cargo, and as a result, have only unpumpable residual water and sediment remaining in tanks."[46] Although most of the ballast water has been pumped out of the tanks of NOBOBs, there almost always remains some residual water and sediment, in which organisms may survive.[47] These surviving organisms may be released to the environment when, as NOBOBs unload their cargo, they pump water in and out of their tanks, causing the residual water and sediment in their tanks to mix with the new water.[48] Thus, NOBOBs pose a real risk for the release of ANS into the waters of the United States.

A 2005 study by the National Oceanic and Atmospheric Administration estimated that NOBOBs "carry literally billions of live critters each year into the Great Lakes basin," among them human pathogens such as cholera.[49] Additionally, during 2006 and 2007, there were "considerably" more ballast water discharge events in the Great Lakes from NOBOBs than from vessels with ballast water.[50] The Coast Guard itself has acknowledged the danger of NOBOBs, stating that "NOBOBs have the potential to carry [ANS] in their empty tanks via residual ballast water and/or accumulated sediment. [NOBOBs] . . . may provide a mechanism for [ANS] to enter the Great Lakes." Finally, possibly as a result of these NOBOBs, "at least 13 new [ANS] are believed to have entered the Great Lakes from ballast water since 1993."[51]

---

45. *See* 33 C.F.R. § 151.1502 (Great Lakes regulations apply to "each vessel that carries ballast water"); Mandatory Ballast Water Management Program for U.S. Waters, 69 Fed. Reg. 44,952, 44,955 (July 28, 2004) ("our final rule for mandatory [ballast-water management for U.S. waters] does not address NOBOBs").

46. Ballast Water Management for Vessels Entering the Great Lakes That Declare No Ballast Onboard, 70 Fed. Reg. 51,831 (Aug. 31, 2005).

47. *See* J.T. Carlton and J.B. Geller, *Ecological Roulette: The Global Transport of Nonindigenous Marine Organisms*, 261 SCI. 78 (1993). *See also* Daniel A. Applegate, *The New Cold War: The Battle to Prevent Eurasian Invaders from Destroying the Great Lakes*, 57 CASE W. RES. L. REV. 391, 396 (2007); EPA REPORT, *supra* note 6, at 9.

48. *See, e.g.*, Applegate, *supra* note 47, at 396; EPA REPORT, *supra* note 6, at 9-10.

49. Dan Egan, *Loophole in Ballast Law Lets Invasive Species in*, MILWAUKEE J. SENTINEL, Oct. 31, 2005, at 1A.

50. EPA REPORT, *supra* note 6, at 2.

51. However, these ANS could have invaded the Great Lakes before the 1993 regulations were put in place and were simply discovered later. EPA REPORT, *supra* note 6, at 9.

Although the Coast Guard announced in 2004 that it was "in the process of establishing ballast-water discharge standards and evaluating shipboard treatment technologies,"[52] the Coast Guard has implemented no further rulemaking concerning ballast water.[53] Rather, in 2005, the Coast Guard issued "best management practices" for NOBOBs. These practices encourage mid-ocean ballast water exchanges, a "saltwater flushing of their empty ballast water tanks," before entering the Great Lakes.[54] However, these practices are voluntary and sometimes avoided because of safety concerns.[55]

Thus, the Coast Guard's ballast water regulations have remained basically unchanged since 1993, with the exception of applying the 1993 Great Lakes regulations to all areas of the United States. This lack of action, in addition to the large NOBOB loophole, has led many states to pass their own laws regarding ballast water regulation.

B. Nw. Envtl. Advocates v. EPA

Another possible source of ballast water regulation may be found through the EPA's enforcement of the CWA. However, in 1973 the EPA "thought that [ballast water] was not an important area to deal with" and that "[v]essels were not important to the overall scheme of things at that time."[56] The EPA thus enacted 40 C.F.R. § 122.3(a) which exempted ballast water dischargers from obtaining a NPDES permit.[57] In 1999, the Northwest Environmental Advocates petitioned the EPA to repeal 40 CFR § 122.3(a).[58] After a year and a half with no response, the Advocates filed suit in district court alleging unreasonable delay in responding.[59] Although the district court ordered the EPA to respond, the 9th Circuit issued a stay.[60] Under a consent decree, the EPA agreed to issue a response by September 2, 2003.[61]

---

52. Mandatory Ballast Water Management Program for U.S. Waters, 69 Fed. Reg. 44,952, 44,955 (July 28, 2004).

53. *Fednav,* 547 F.3d at 612.

54. Ballast Water Management for Vessels Entering the Great Lakes That Declare No Ballast Onboard, 70 Fed. Reg. 51,831, 51,835 (August 31, 2005).

55. *See* Øyvind Endresen et al., *Challenges in Global Ballast Water Management*, 48 MARINE POLLUTION BULL. 615, 616-617 (2004).

56. Craig Vogt, EPA: Ocean Discharge Criteria, EPA Pub. Meeting # 12227 (Sept. 12, 2000, 1 p.m.).

57. The regulation reads: "[t]he following discharges do not require NPDES permits: (a) Any discharge of . . . other discharge incidental to the normal operation of a vessel," which includes ballast water discharges. 40 CFR § 122.3(a) (2008).

58. *Nw. Envtl. Advocates*, 537 F.3d at 1013.

59. *Id.*

60. *Id.*

61. Nw. Envtl. Advocates v. EPA, 340 F.3d 853, 857 (9th Cir. 2003).

On the very date of the deadline, the EPA denied the petition in full.[62] Three months later, in December 2003, Northwest Environmental Advocates filed suit in the Northern District of California seeking a declaration that the EPA exceeded its statutory authority by enacting 40 C.F.R. § 122.3(a). In 2005, the court granted the plaintiffs relief and declared that the EPA acted *ultra vires* when it issued the regulation.[63] In 2006, the court ordered that the regulation be vacated on September 30, 2008, thereby forcing the EPA to issue a NDPES permit by that date.[64] The EPA appealed, and in July 2008 the 9th Circuit affirmed.[65] Because this case exemplifies the complicated nature of federal ballast water regulation and the manner in which the federal government has unduly delayed passing ballast water regulation, the 9th Circuit's opinion in *Nw. Envtl. Advocates v. EPA* merits further discussion.

The court first analyzed whether § 122.3(a) was invalid under the plain meaning of the CWA and secondly whether Congress had acquiesced to the EPA's actions notwithstanding the invalidity of § 122.3(a).[66] In deciding that § 122.3(a) was invalid under the plain meaning of the statute, the court started its analysis by outlining the framework of the CWA.

Section 301(a) of the CWA states that "the discharge of any pollutant by any person shall be unlawful."[67] However, § 402 of the act states that a "point source" may obtain a "permit for the discharge of any pollutant or combination of pollutants."[68] The CWA defines the "discharge of any pollutant" as "any addition of any pollutant to navigable waters from any point source."[69] "A 'point source' is 'any discernable, confined and discrete conveyance, including . . . [a] vessel or other floating craft, from which pollutants are or may be discharged.'"[70] "Pollutant," among other things, is defined as "biological materials,"[71] which includes invasive species.[72]

---

62. *See* Availability of Decision on Petition for Rulemaking To Repeal Regulation Related to Ballast Water, 68 Fed. Reg. 53,165 (Sept. 9, 2003).

63. Nw. Envtl. Advocates v. EPA, 35 Envtl. L. Rep. (Envtl. Law Inst.) 20075 (N.D.Cal. Mar. 30, 2005).

64. Nw. Envtl. Advocates v. EPA, 36 Envtl. L. Rep. (Envtl. Law Inst.) 20194 (N.D.Cal. Sep 18, 2006).

65. Nw. Envtl. Advocates v. EPA, 537 F.3d 1006 (9th Cir. 2008).

66. *Id.* at 1019-25.

67. 33 U.S.C. § 1311(a) (2009).

68. *Id.* § 1342(a)(1).

69. *Id.* § 1362(12)(A).

70. *Nw. Envtl. Advocates*, 537 F.3d at 1021 (quoting 33 U.S.C. § 1362(14) (2006)).

71. 33 U.S.C. § 1362(6) (2006).

72. *Nw. Envtl. Advocates,* 537 F.3d at 1021 (citing Nat'l Wildlife Fed'n v. Consumers Power Co., 862 F.2d 580, 583 (6th Cir. 1988)).

Because this language clearly states that vessels should not discharge ballast water without a permit, the court went on to note that the issue of whether the EPA can grant exemptions to the NPDES requirements had already been decided in a case "dispositive"[73] of the EPA's arguments: *Natural Res. Def. Council v. Costle.*[74] The *Costle* court stated that the only possible statutory support for exemptions from NPDES permits is found in § 402, which reads, in relevant part, that:

> [The Administrator] may, . . ., issue a permit for the discharge of any pollutant, . . . notwithstanding section 301(a), upon condition that such discharge will meet either (A) all applicable requirements under sections 301, 302, 306, 307, 308, and 403 of this Act, or (B) prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this Act.[75]

The *Costle* court further stipulated that:

> The use of the word "may" in § 402, means only that the Administrator has discretion either to issue a permit or to leave the discharger subject to the total proscription of § 301. This is the natural reading, and the only one that retains the fundamental logic of the statute.[76]

Thus, finding no need to consider legislative history because of the clear statutory language, the 9th Circuit echoed the *Costle* court's holding that "Congress expressed 'a plain . . . intent to require permits in any situation of pollution from point sources.'"[77]

The EPA next argued that Congress had acquiesced to § 122.3(a).[78] The court was not very sympathetic to this "heroic"[79] argument, stating that "the standard for a judicial finding of congressional acquiescence is extremely high"[80] and requires "overwhelming" evidence.[81]

The 9th Circuit then examined several acts of Congress[82] which the EPA claimed evidenced congressional acquiescence. Although two of

---

73. *Nw. Envtl. Advocates*, 537 F.3d at 1021.
74. Natural Res. Def. Council v. Costle, 568 F.2d 1369 (D.C. Cir. 1977).
75. 33 U.S.C § 1342(a)(1) (2006).
76. *Costle*, 568 F.2d at 1375.
77. *Nw. Envtl. Advocates*, 537 F.3d at 1022 (quoting *Costle*, 568 F.2d at 1338).
78. *Nw. Envtl. Advocates*, 537 F.3d at 1022.
79. *Id.*
80. *Id.*
81. *Id.* (quoting Solid Waste Agency of N. Cook County v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 169-70 n.5 (2001)).
82. 33 U.S.C. §§ 1322(a), (j), (n), 1362(6) (1996); 30 U.S.C. §§ 1419 *et seq.* (1980); 16 U.S.C. § 4701 *et seq.* (1990); 16 U.S.C. § 4701 *et seq.* (1996); 33 U.S.C. § 1901.

these acts do reference 40 C.F.R. § 122.3(a),[83] the court easily rejected them as acquiescence. The court stated that one act mentions § 122.3(a) in order to distinguish itself from it, and another mentions it, but not the portion challenged by Northwest Environmental Advocates.[84] The other three statutes used by the EPA did not explicitly mention § 122.3(a) and the court seemed not to consider them.[85] Thus, the court rejected both of the EPA's substantive arguments.[86]

The 9th Circuit affirmed the district court's ruling and ordered that 40 C.F.R. § 122.3(a) be vacated on September 30, 2008.[87] However, on a stipulation from both the parties, the court later moved the date to December 19, 2008.[88]

The 9th Circuit's opinion manifests the federal government's slow response in regulating ballast water and the "heroic" arguments it used to justify its position. An incredible amount of time elapsed before the Coast Guard took action to make ballast water exchanges mandatory for all ocean-going vessels. Even when it did take action, however, NOBOBs were explicitly excluded. As for the EPA, ten years of litigation were needed for it to finally issue a single permit that in the end is merely a codification of the Coast Guard's regulations and a flimsy suture to secure the NOBOB loophole. Clearly, actions by both the Coast Guard and the EPA have been reactionary rather than progressive.

C. H.R. 2830: A Failed Attempt

In 2008, Congress nearly passed bill H.R. 2830, The Coast Guard Authorization Act of 2008, which would have given the United States Coast Guard more authority to enforce stricter standards for ballast water discharges.[89] The bill included a section entitled the "Ballast Water Treatment Act of 2008."[90] The scheme is based on a ballast water management plan, which each vessel must have, and a vessel ballast water record book, which must be kept onboard at all times.[91]

The Act would have been executed in two stages. In the first stage, in order to discharge ballast water in U.S. waters, vessels would have three options: (1) perform ballast water exchange by either the empty-

83. 33 U.S.C. §§ 1322(a), (j), (n), 1362(6) and 33 U.S.C. § 1419 *et seq.*
84. *Nw. Envtl. Advocates*, 537 F.3d at 1023-24.
85. *Id.* at 1024-25.
86. *Id.* at 1027.
87. *Id.*
88. Nw. Envtl. Advocates v. EPA, No. C 03-05760 SI, 2008 U.S. Dist. LEXIS 66738 (N.D. Cal. August 31, 2008).
89. Erica Wener, *Senators Clash Over Ballast Water Bill*, DETROIT FREE PRESS, August, 4, 2008.
90. H.R. 2830 § 501, 110th Cong. (2008).
91. *Id.* § 503(c), (d).

and-refill method or a flow-through method, through which 95 percent of the old water must be replaced by new water, as determined by a dye study; (2) use ballast water treatment technology that would meet the performance standards required in the second stage of the statute; or (3) use an "environmentally sound alternative" that would employ technology that is at least as effective as a ballast water exchange, as approved by the Coast Guard.[92] The first stage would also require NOBOBs to flush their ballast water tanks with salt water outside the EEZ.[93] The second phase of the plan would enforce performance standards, which would be achieved via technology approved by the Coast Guard.[94] Thus, with these performance standards outlined by H.R. 2830, the Federal Government could have helped foster innovative technology to find a more effective method than simple ballast water exchanges.

H.R. 2830 passed by an overwhelming majority in the House of Representatives.[95] However, after being read and put on the calendar in the Senate, the bill stalled out.[96] The reason for the bill's failure in the Senate may be attributed to California Senator Barbara Boxer.[97] Senator Boxer had previously complained that the bill would preempt California's stricter ballast water standards.[98] For this reason, Senator Boxer and others have argued that regulation under the CWA, overseen by the EPA, would be a more favorable enforcement route. Senator Boxer claimed that, under the CWA, states would be given more freedom to set higher standards than those standards set by the EPA.[99]

Other groups have also complained that ballast water regulation overseen by the Coast Guard would be less favorable than regulation by the EPA. For example, it has been stated that the Coast Guard has not done a sufficient job enforcing the regulations that it currently has in place. Others argue that enforcement by civilians under the CWA would be more favorable than regulation by the Coast Guard.[100]

---

92. *Id.* § 503(e)(1)(A).
93. *Id.* § 503(e)(9).
94. *Id.* § 503(f).
95. 154 CONG. REC. D496 (2d Sess. 2008).
96. *See* Mike Simpson, *Shippers: Ballast Bill Boxed up by Sen. Boxer*, BUS. N. (Duluth, MN), September 9, 2008, *available at* http://www.businessnorth.com/kuws.asp?RID=2490.
97. *See, e.g.,* Erica Wener, *Senators Clash Over Ballast Water Bill*, DETROIT FREE PRESS, August, 4, 2008; Simpson, *supra* note 96.
98. *See, e.g.,* Wener, *supra* note 97; Simpson, *supra* note 96.
99. *See, e.g.,* Wener, *supra* note 97; Simpson, *supra* note 96.
100. *See, e.g.,* Wener, *supra* note 97; Simpson, *supra* note 96.

D. The New NDPES Permit

On December 19, 2008, as a consequence of the 9th Circuit's decision in *Nw. Envtl. Advocates*, the EPA published a NPDES permit that governs ballast water discharges along with other vessel discharges.[101] However, the Northern District of California extended the life of the ballast water exclusion, found in 40 C.F.R. § 122.3(a), until February 6, 2009.[102]

The new permit incorporates all of the Coast Guard's regulations found in 33 C.F.R. § 151, making only one major change.[103] This single significant change from past regulations is that NOBOBs are now required either to seal their ballast water tanks, so that no water or sediment is discharged, or to conduct a ballast water exchange "such that the resulting residual water remaining in the tank has either a salinity greater than or equal to 30 parts per thousand (ppt) or a salinity concentration equal to the ambient salinity of the location where the uptake of the added water took place."[104]

Including mandatory ballast water exchanges for NOBOBs is a step in the right direction and fixes a large loophole; nevertheless, the permit did not include other possible restrictions, such as requiring other methods of ballast water treatment via technology requirements or effluent limitations. Critics of the new permit have complained that the EPA fulfilled only its minimum legal obligation rather than taking necessary further actions to sufficiently protect U.S. waters.[105] In particular, critics point out that the permit does not require, or allow, the use of other water treatment methods other than ballast water exchanges.[106] Nina Bell, executive director of Northwest Environmental Advocates, stated that "[r]insing tanks at sea instead of using known technology to kill invasive species prior to discharge is like rinsing your mouth out at night instead of brushing your teeth; it's better than nothing

---

101. Final National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Incidental to the Normal Operation of a Vessel, 73 Fed. Reg. 79,475 (December 29, 2008).

102. Nw. Envtl. Advocates v. EPA, No. C03-05760 SI, (N.D. Cal. Dec. 17, 2008). *See also* R. G. Edmonson, *Judge Extends Vessel Discharge Compliance*, THE JOURNAL OF COMMERCE ONLINE, December 22, 2008.

103. EPA GENERAL PERMIT, *supra* note 2, at 16.

104. EPA GENERAL PERMIT, *supra* note 2, at 19.

105. Dan Egan, *Conservationists Take EPA Back to Court Over Ballast Water*, MILWAUKEE J. SENTINEL, December 20, 2009.

106. *Id.* Since the new NPDES permit incorporates the Coast Guard regulations, if the Coast Guard approved another treatment method it would be acceptable under the permit, but, as stated above, the Coast Guard has approved no other methods. *See* EPA GENERAL PERMIT, *supra* note 2, at 16.

but it's no substitute for what works."[107] As a result of the dissatisfaction with the new permit, the Northwest Environmental Advocates have filed another suit in the 9th Circuit alleging that the new permit does not do enough to protect the water of the U.S.[108]

There is another important aspect of the NPDES permit, however, that might lead to real gains in reducing the rate at which ballast water discharge introduces non-native species into U.S. waters: the inclusion of state regulations. The permit explicitly states that "[n]othing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the Clean Water Act."[109] As a result, Appendix 7 of the permit contains regulations specific to each state with which vessels must also comply. Many states have their own ballast water regulations, among which the most progressive are those of California, Michigan, and Minnesota.

III. STATE REGULATION

A. California

Ballast water regulation in California seeks "to move the state expeditiously toward *elimination* of the discharge of nonindigenous species [ANS] into the water of the state or into water that may impact the waters of the state."[110] The regulations apply to all vessels[111] carrying ballast water that arrive in California after departing from another "port or place with the Pacific Coast Region."[112] The Pacific Coast Region consists of "all coastal waters on the Coast of North America east of 154 degrees W longitude and north of 25 degrees N latitude, exclusive of the Gulf of California."[113]

Vessels are given five options in the disposition of their ballast water: (1) "exchange the vessel's ballast water in near-coastal waters"; (2) not discharge any of their ballast water; (3) use another method that has been approved by the California State Lands Commission or the United States Coast Guard "as being at least as effective as exchang[ing]"; (4) discharge the ballast water into an approved reception

107. Egan, *supra* note 105.
108. Egan, *supra* note 105.
109. EPA GENERAL PERMIT, *supra* note 2, at 11.
110. CAL. CODE REGS. tit. 2, § 2280(a) (2009) (emphasis added).
111. The statute applies to vessels over 300 gross registered tons or more. CAL. CODE REGS. tit. 2, § 2282(h) (2009).
112. CAL. CODE REGS. tit. 2, § 2280(a) (2009).
113. *Id.* § 2282(c)(g).

facility; or (5) under "extraordinary circumstances," exchange the ballast water in an approved area.[114]

An "exchange" is an activity in which ballast water is replaced with other waters.[115] In the California regulations, this may be accomplished through two methods: first, the "flow through exchange," in which a vessel flushes out its ballast water by "pumping three full volumes of near-coastal water through the tank" or second, the "empty/refill exchange," in which the ballast water is emptied, or at least as empty as is safe, and then replaced with "near-coastal waters."[116] "Near-coastal waters" are waters that are "more than 50 nautical miles from land and at least 200 meters deep."[117]

In addition to these current regulations, California has also set up future performance standards. Specifically, the statutes establish the number and size of organisms that may be found in ballast water per milliliter of water upon discharge.[118] These performance standards become enforceable for different sized vessels at different times. Vessels with ballast capacity less than 5,000 metric tons must follow the regulations after January 1, 2009, while the compliance date for vessels with ballast capacity over 5,000 metric tons the date is January 1, 2014.[119] New ships will also have to follow these regulations based on their ballast capacity[120] until, finally, after January 1, 2020 when all vessels discharging ballast water in California must contain "zero detectable living organisms for all organism size classes."[121]

B. Michigan

As of January 1, 2007, "*all oceangoing vessels* engaging in port operations in [Michigan]" require a permit.[122] "Oceangoing vessel" refers to a "vessel that operates on the Great Lakes or the St. Lawrence waterway after operating in waters outside of the Great Lakes or the St. Lawrence waterway."[123] Permits will be issued in only two situations:

---

114. *Id.* § 2284(a).
115. *Id.* § 2282(c).
116. *Id.*
117. *Id.* § 2282(f).
118. *Id.* § 2293.
119. *Id.* § 2294(a), (b).
120. *Id.* § 2294(c), (d).
121. *Id.* § 2295.
122. Vessels that operate solely within the Great Lakes do not need permits. MICH. COMP. LAWS § 324.3112(6) (2009) (emphasis added).
123. *Id.* § 324.3101(p). *Cf.* Amy Lane, *DEQ Delays Ballast Water Treatment Rules for now*, CRAIN'S DETROIT BUS., December 8, 2008, *available at* http://www.crainsdetroit.com/apps/pbcs.dll/article?AID=/20081207/SUB01/812080302/1

first, if the applicant can demonstrate that the vessel will not discharge any invasive species, or second, if the vessel's operator will use "environmentally sound technology and methods" approved by the Michigan Department of Environmental Quality before discharging the water.[124] The approved methods include: hypochlorite treatment, chlorine dioxide treatment, ultra violet light radiation treatment preceded by suspended solids removal, and deoxygenation treatment.[125]

From a technological standpoint, Michigan's regulations may be the most progressive because they are the only laws that officially list and approve non-ballast water exchange alternatives. Michigan's regulations are different from California's because there are no effluent standards; rather, in Michigan, as long as the water is treated using one of the approved treatment methods, the ballast water may be discharged.

There may be a reason for Michigan's willingness to approve treatment methods immediately rather than set future effluent limitations and wait for the technology to develop. Since Michigan is an import state, most vessels come to Michigan ports loaded with cargo and empty ballast tanks and thus do not need to discharge ballast water upon arrival.[126] As a result, since 2007 when Michigan's regulations took effect, there have been no ballast water discharges in Michigan under the new permit and, as of August 8, 2008, no applications for permits had been filed.[127] Additionally, in a January 2009 report from the EPA entitled *Predicting Future Introductions of Nonindigenous Species to the Great Lakes*, no Michigan port was listed among those at greatest risk to ANS invasion.[128]

Although Michigan's exact motives for its ballast water regime may be complicated, it can be posited that because it is a state that receives very little ballast water from ocean going vessels, it does not have much to lose economically by allowing oceangoing vessels to experiment with new ballast water treatment methods or having strict regulations. On the other hand, California appears to have been more tentative in requiring vessels to use costly, but as yet unproven, treatment methods.

---

077 (putting the same requirements on vessels that only travel within the Great Lakes would be a "business killer").

124. MICH. COMP. LAWS § 324.3112(6) (2009).

125. MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, BALLAST WATER CONTROL GENERAL PERMIT PORT OPERATIONS AND BALLAST DISCHARGE (October 11, 2006) at 1, *available at* http://www.michigan.gov/documents/deq/wb-npdes-general permit-MIG140000_247256_7.pdf [hereinafter MI PERMIT].

126. EPA REPORT, *supra* note 6, at 11.

127. EPA REPORT, *supra* note 6, at 11.

128. EPA REPORT, *supra* note 6, at ii ("The Great Lakes ports at greatest risk for invasion by the 14 modeled species from ballast water discharges are Toledo, Ashtabula and Sandusky, OH; Gary, IN; Duluth, MN; Milwaukee and Superior, WI; and Chicago, IL.").

C. *Minnesota*

Minnesota's ballast water regulations are not limited solely to oceangoing vessels as are those of Michigan; the Minnesota regulations apply to "all vessels transiting the Minnesota State waters of Lake Superior" that are designed to carry at least eight cubic meters of ballast water and are fifty meters or more in length.[129] The permit has a two-pronged approach: (1) best management practice standards and (2) performance standards that limit the concentration of organisms in discharged ballast water. The best management practices must be implemented immediately and include the current U.S. Coast Guard regulations concerning ballast water exchange[130] whereas the performance standards will be implemented over time. Ships built after January 1, 2012 must conform to the performance standards in order to operate in Minnesota waters, and ships built before that date must comply with the standards by January 1, 2016.[131]

There are a few exceptions to this seemingly all-inclusive rule. For example, ships that operate strictly within the Duluth Captain of the Port Zone[132] and ships that will not discharge their ballast water, but carry it in sealed tanks, are not required to comply.[133] Also excluded are ships that discharge their ballast water into on-shore tanks and those that use flow-through or flush ballast water management techniques approved by the MPCA.[134] Flow-through or flush ballast water management techniques are defined as "vessels which continually exchange the water in the ballast tanks, either by pumping or by differential pressure, during transit with ambient water in the vicinity of the vessel."[135]

The reason for having the permit apply to all vessels and not just oceangoing vessels may be because more ballast water is discharged in Minnesota than in Michigan. For example, "[i]n 2005, more ballast water was discharged to Minnesota Lake Superior harbors than any other Great Lakes port. The Duluth-Superior harbor received 5.4 billion gallons of ballast water and the Two Harbors port received 1.9 billion gallons."[136]

---

129. MINNESOTA POLLUTION CONTROL AGENCY, BALLAST WATER DISCHARGE GENERAL PERMIT (September 28, 2008) at 1, *available at* http://www.pca.state.mn.us/publications/ballast-finalpermit-092408.pdf [hereinafter MN PERMIT].

130. *Id.* at 3.

131. *Id.* at 4.

132. The area covers the eastern part of Lake Superior.

133. MN PERMIT, *supra* note 129, at 1.

134. *Id.*

135. *Id.* at 16.

136. MINNESOTA POLLUTION CONTROL AGENCY, DISCHARGE OF BALLAST WATER TO MINNESOTA STATE WATERS OF LAKE SUPERIOR—REQUEST FOR APPROVAL OF FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER, AND FOR AUTHORIZATION TO ISSUE STATE

Another possible reason Minnesota has chosen to regulate all ships coming into its ports, rather than just oceangoing vessels, is to not only prevent the spread of ANS into the Great Lakes from across the ocean, but also to prevent them from spreading between the individual Great Lakes.[137] The EPA has noted:

> the natural construction of the Great Lakes, whereby water flows and boat traffic moves from one lake into another, facilitates natural and human-induced dispersal within and between the lakes [citation omitted]. These dispersal patterns are likely to hasten the spread of a NIS once it has entered the Great Lakes but are unlikely to add new species.[138]

Currently, there are over 185 invasive species found throughout the Great Lakes, whereas only 41 of those are currently known to occur in Lake Superior.[139] Thus, Minnesota has a special interest in preventing ANS from invading Lake Superior. For example, of special interest to Minnesotans is the spread of viral hemorrhagic septicemia (VHS).[140] VHS is a virus that has severely affected game fish in some of the Great Lakes and is thought to have been introduced to the Great Lakes from the North Atlantic Ocean, but has not yet been reported in Lake Superior.[141]

Thus, while the ballast water regimes of California, Michigan, and Minnesota are similar, they also have their distinct differences. For example, Minnesota's regulations apply to both oceangoing vessels and vessels that operate solely within the Great Lakes, while Michigan's regulations apply only to oceangoing vessels.[142] Minnesota and California both have performance standards, but Michigan is the only state that has currently approved ballast water treatment methods that might actually be applied to meet those standards.[143] Of particular note is the lack of permit applications in Michigan, whereas as of January 21, 2009, there had been 107 permit applications in Minnesota since it began

---

DISPOSAL SYSTEM GENERAL PERMIT NO. MNG300000, (Sept. 23, 2008) at 2, *available at* http://www.pca.state.mn.us/about/board/packet/ballast-boardpacket.pdf.

137. MINNESOTA POLLUTION CONTROL AGENCY, BALLAST WATER DISCHARGE GENERAL PERMIT, STATE DISPOSAL SYSTEM (SDS) GENERAL PERMIT NO. MNG 300000, RESPONSES TO COMMENT ON THE PROPOSED SDS PERMIT (2008) at 1, *available at* http://www.pca.state.mn.us/about/board/packet/ballast-boardpacket.pdf [hereinafter MN PERMIT RESPONSES].

138. EPA REPORT, *supra* note 6, at 6-7.

139. MN PERMIT RESPONSES, *supra* note 137, at 1.

140. *Activists Seek Strict Minnesota Ballast Permit Ahead of EPA Measure*, 25(24) ENVTL. POL'Y ALERT, Nov. 19, 2008.

141. MN PERMIT RESPONSES, *supra* note 137, at 1.

142. *See* MN PERMIT, *supra* note 129, at 1; MICH. COMP. LAWS § 324.3112(6) (2009).

143. MI PERMIT, *supra* note 125, at 1.

issuing permits in fall 2008.[144] A final difference is in California's goal to eradicate all ANS introductions with the stated goal of having no detectable living organisms in a vessel's ballast water by 2020.[145]

IV. FEDERALISM AND STATE REGULATION: *FEDNAV, LTD. V. CHESTER*

With ballast water regulation at both the federal and state level, federalism challenges, especially on the grounds of commerce clause and federal preemption, are potential problems.[146] In 2008, Michigan's ballast water regulations survived these very challenges in *Fednav, Ltd. v. Chester*.[147] A coalition of shipping companies and other interested parties brought suit against Michigan challenging the constitutionality of Michigan's ballast water regulations.[148] The district court dismissed the case on jurisdictional grounds and for failure to state a claim.[149] In November 2008, the 6th Circuit affirmed the district court's decision.[150] In its decision, the 6th Circuit ruled that Michigan's ballast water regulation did not violate the commerce clause and was not preempted by federal legislation.[151]

The court started by analyzing the federal preemption claims, quickly rejecting the possibility of explicit preemption since nowhere in either NANPCA or NISA did Congress explicitly state that it intended to preempt state law.[152] The court next examined whether Michigan's ballast water regulations are subject to field preemption, stating that field preemption occurs when "the scheme of federal regulation is sufficiently comprehensive to make reasonable the inference that Congress 'left no room' for supplementary state regulation."[153] The court found the applicable field to be the prevention of ANS introduction,[154] noting that NISA differentiates between the prevention of ANS introduction[155] and

144. Email from Mary Jean Fenske, MN Vessel Discharge Program Coordinator (January 21, 2009 5:44:24 PM EST) (on file with author).

145. CAL. CODE REGS. tit. 2, § 2295 (2009).

146. *See generally* Kyle H. Landis-Marinello, *Noontime Dumping: Why States Have Broad Discretion to Regulate Onboard Treatments of Ballast Water*, 106 MICH. L. REV. 135 (2007).

147. Fednav, Ltd. v. Chester, 547 F.3d 607 (6th Cir. 2008).

148. Fednav, Ltd. v. Chester, 505 F.Supp.2d 381 (E.D. Mich., 2007).

149. *Id.* at 400.

150. *Fednav*, 547 F.3d at 625.

151. *Id.* at 618-24.

152. *Id.* at 619.

153. *Fednav*, 547 F.3d at 618 (quoting Ohio Mfrs. Assoc. v. City of Akron, 801 F.2d 824, 828 (6th Cir. 1986)). *See also* Ray v. Atlantic Richfield Co., 435 U.S. 151, 157 (1978) (field preemption also occurs when an "Act of Congress . . . touch[es] a field in which the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject.").

154. *Fednav*, 547 F.3d at 618.

155. 16 U.S.C. § 4722(c)(1) (2006).

the control of ANS dispersal after introduction.[156] Since the Michigan ballast water regulations did not mention controlling ANS after introduction,[157] the court held that the regulations dealt only with prevention.[158]

The court then turned to the language of NISA, where it found that Congress intended for states and the Federal Government to work together in the prevention of ANS introduction. In this analysis, the court first noted the statement in NISA that "resolving the problems associated with aquatic nuisance species will require the participation and cooperation of the Federal Government and State governments."[159]

In order to answer the question of whether "problems" referred to control or prevention, the court moved on to the section of NISA entitled "Regional Coordination," where Congress created a Great Lakes panel to "coordinate, where possible, aquatic nuisance species program activities in the Great Lakes region that are not conducted pursuant to this chapter."[160] The court held that because "[a]quatic nuisance species program activities" was defined by § 4722 to include not only ANS control measures, but ANS prevention measures as well,[161] that Congress intended for there to be ANS prevention measures "in the Great Lakes region that *are not conducted pursuant to this chapter,*"[162] which included state action.[163] The court reasoned that because the Great Lakes panel is to be composed of representatives of state and local agencies,[164] and because § 4724 encourages Governors to submit "state aquatic nuisance species management plans" that include state action to prevent and control aquatic invasions[165] to a task force made up of federal officials[166] (and the states may even receive funding for these plans), it is clear that Congress anticipated state action in the prevention of ANS introduction.[167] Thus, the court held that Michigan's ballast water regulations are not preempted via field preemption.

The court next analyzed whether Michigan's ballast water regulations are preempted via conflict preemption. There are two ways in which conflict preemption may occur: (1) where "compliance with

156. *Id.* § 4722(e)(1).
157. *See* MICH. COMP. LAWS § 324.3112(6) (2009).
158. *Fednav*, 547 F.3d at 618.
159. *Id.* at 620 (quoting 16 U.S.C. § 4701(15) (2006)).
160. 16 U.S.C. § 4723(a)(1)(D) (2006).
161. 16 U.S.C. § 4722(c).
162. *Fednav*, 547 F.3d at 620 (quoting 16 U.S.C. § 4723(a)(1)(D) (2009)) (emphasis added).
163. *Fednav*, 547 F.3d at 620.
164. 16 U.S.C. § 4723(a)(1) (2006).
165. *Id.* § 4724(a)(2)(A).
166. *Id.* § 4721.
167. *Fednav*, 547 F.3d at 621.

both federal and state regulation is a physical impossibility,"[168] or (2) when the state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."[169]

The court quickly dismissed these arguments. First, the court stated that complying with both federal and Michigan ballast water regulations is not impossible.[170] It then stated that Michigan's ballast water regulations do not stand as an obstacle to the purpose of federal regulations since both the Michigan and federal regulations share a common purpose. Also, Michigan's additional record-keeping and reporting requirements do not "obstruct[] NISA's purposes in the least."[171]

The 6th Circuit next considered, and quickly rejected, Fednav's argument that Michigan's ballast water regulations violated the dormant commerce clause.[172] The court stated that the ballast water regulations imposed burdens evenly on both in-state and out-of-state actors and therefore the regulations should be upheld unless the burdens were "clearly excessive in relation to the putative local benefits."[173] The court held that relative to the $5 billion cost that Congress estimated zebra mussels would have in the year 2000, the $75 application fee, the yearly fee of $150, and the completion of a few forms were clearly *de minimus*, and therefore not excessive.[174] Finally, the court concluded that dormant commerce clause challenges can be successful only where Congress has not acted. However, the court concluded that because Congress expressly contemplated in NISA state collaboration in the fight against ANS, Michigan's ballast water regulations do not, and cannot, violate the dormant commerce clause.[175]

IV. CONCLUSION

Given that a new nonindigenous species is discovered in the Great Lakes about every twenty-eight weeks, there is no time to waste in efforts to curtail biological invasions.[176] Ballast water regulation is but one necessary part of the effort to reduce the environmental and

168. Fla. Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 142-43 (1963).
169. Hines v. Davidowitz, 312 U.S. 52, 67 (1941).
170. *Fednav*, 547 F.3d at 623.
171. *Id.* at 623.
172. *Id.* at 623-24.
173. *Id.* at 623 (citing Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970)).
174. *Fednav*, 547 F.3d at 623-24.
175. *Id.* at 624.
176. U.S. EPA, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) VESSEL GENERAL PERMIT (VGP) FOR DISCHARGES INCIDENTAL TO THE NORMAL OPERATION OF VESSELS FACT SHEET (2008), at 13, *available at* http://www.epa.gov/npdes/pubs/vessel_vgp_factsheet.pdf.

economic harm wrought by ANS. In spite of the problems ANS cause, for almost forty years the federal government has dragged its feet in regulating ballast water. Despite their exemption from CWA regulation since 1973, ballast water exchanges have been mandatory in the Great Lakes since 1993, but it was not until the EPA's new NPDES permit was issued, almost sixteen years later, that the NOBOBs loophole was fixed. Although the federal government is now starting to recognize the importance of ballast water regulation, as evidenced by the attempt to pass H.R. 2830, most of its forward progress has been the result of litigation stemming from its inaction. And even when the federal government did take this reluctant action, via the EPA and the issuance of the NPDES permit, it did not take advantage of the opportunity to add performance or technology standards, but did only what was "politically expedient."[177]

In light of this slow development, this comment recommends that states continue to progressively legislate in the area of ballast water regulation and that the federal government continue to allow states to do so. States like Minnesota, California, and Michigan have tried to patch the gaping legislative and policy holes in the federal government's attempts at the regulation of ballast water[178] and thankfully, as evidenced by *Fednav, Ltd. v. Chester*, their laws have been upheld in the courts. Such progressive legislation is essential to protect the waters of the U.S. from ANS invasion and to foster innovation to find more effective methods of preventing ANS introduction.

One impediment that the EPA and other federal agencies face when enacting new regulations is gathering enough information in order to be able to properly justify their actions and balance their regulatory constraints. This causes the federal government to act slowly in order to not make any mistakes, though this often causes severe lag, the consequences of which can result in situations like that of ballast water regulation. If the states were allowed to continue to create their own ballast water regulations, they may serve to speed up the ballast water innovation process. Herein lies, as championed by Justice O'Connor, and Justice Brandeis before her, "[o]ne of federalism's chief virtues . . . that it promotes innovation by allowing for the possibility that 'a single courageous State may, if its citizens choose, serve as a laboratory; and

177. Egan, *supra* note 105 ("The law does not allow EPA to do what's politically expedient; it requires what is necessary to protect our waters.").

178. *States Seek to Preserve Authorities Over Ship Discharge Permits*, ENVTL. POL'Y ALERT, November 19, 2008, Vol. 25 No. 24.

try novel social and economic experiments without risk to the rest of the country.'"[179]

The ballast water regulations in Michigan and Minnesota are excellent examples of the possible advantages from this federalism approach. The ballast water regulations in Minnesota, a state very concerned with the spread of ANS from one Great Lake to the next, apply to all vessels, including both oceangoing vessels and those that travel only within the Great Lakes.[180] Minnesota's regulations also include performance standards that become mandatory starting in 2012, though Minnesota has not approved any certain technology.[181] In Michigan, on the other hand, the ballast water regulations apply only to oceangoing vessels, but Michigan has also approved certain ballast water treatment technologies for immediate use.[182] Allowing Minnesota and Michigan to create their own ballast water regulations permits them to both protect their own interests (for Minnesota, to protect against inter-lake invasions; for Michigan, to protect the oceangoing vessels market), and to test different methods of fostering innovation (in Minnesota by enforcing performance standards and in Michigan by approving certain technologies), which may be adopted nationally if they prove feasible and successful.

This comment does not argue against strong federal regulation; instead, in light of the many differing state environments and interests, it argues that federal regulations concerning ballast water regulation should be a floor rather than a ceiling. States should be able to set higher ballast water discharging standards than the federal standards, even in the face of the economic impact these differing regulations might have on the shipping industry. As the 6th Circuit noted, when compared with the billions of dollars that ANS have cost, the economic burdens that the shipping industry would have to bear are certainly *de minimus*.[183] The introduction of ANS into U.S. waters needs to be stopped and strong state regulations should be an integral part of the effort.

---

179. Gonzales v. Raich, 545 U.S. 1, 42 (U.S. 2005) (O'Connor, J., dissenting) (quoting New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting)). *See also* John Schwartz, *Obama Seems Open to a Broader Role for States*, N.Y. TIMES, Jan. 30, 2009 (stating that under the Obama Administration a new "progressive federalism" will be practiced with the states in order to lead the way on environmental initiatives).

180. MN PERMIT, *supra* note 129, at 1.

181. *Id.* at 4.

182. MICH. COMP. LAWS § 324.3112(6) (2009).

183. *Fednav*, 547 F.3d at 623-24.