The National Environmental Coalition on Invasive Species

Defenders of Wildlife, Environmental Defense, Great Lakes United, International Center for Technology Assessment, National Wildlife Federation, The Nature Conservancy, Union of Concerned Scientists

Written comments regarding the March 25, 2004 hearing:

"Ballast Water Management: New International Standards and National Invasive Species Act Reauthorization"

Before the

Coast Guard and Maritime Transportation and Water Resources and Environment Subcommittees

Of the
House Transportation and Infrastructure Committee

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About the National Environmental Coalition on Invasive Species

The National Environmental Coalition on Invasive Species (NECIS) was formed to enhance cooperation among non-profit groups working on invasive species. NECIS member organizations have more than six million individual members and supporters combined. As individual organizations, we provide scientific, economic, legal analyses and/or responsible advocacy on the critical issue of invasive species. As a coalition, we work together to promote ecologically sound policies and practices for invasive species prevention, research, control, and eradication.

Summary

Invaders are irreparably destroying the environment and our natural heritage, costing an estimated, conservative $138 billion dollars annually, and eroding the quality of life for citizens across the country. Preventing and controlling the spread of aquatic invasive species is not merely an environmental protection issue; aquatic invasive species must be treated as an immediate priority if the United States is to maintain the multitude of benefits its waters provide its citizens, including benefits that most individuals assume as rights, such as clean drinking water, fishing resources and recreational access.

NECIS comments are provided to help guide an expeditious and effective path forward to prevent aquatic invasive species introductions and control populations already established. Comments are provided regarding the following:

- The benefit of aquatic invasive species prevention and immediate action
- Domestic versus international (IMO) approach to regulating ballast water
- The National Aquatic Invasive Species Act
- Setting ballast water standards
- Effective and environmentally sound treatment technologies
- Funding

The Case for Action

The constituency of interests negatively affected by aquatic invasive species is striking in its diversity: anglers, boaters, tourism industries, agriculture, hydropower facilities, municipalities and many others all have all been stung by past invasions. Aquatic invasive species cause a range of impacts, from ecological to economic. For example, aquatic invasive species are the primary cause of biodiversity loss in the Great Lakes, implicated in fish population declines in a fishery valued at over $4.5 billion dollars. Idaho communities spend a quarter of a million dollars annually to control Eurasian water-milfoil in recreational waters. This fast-growing weed chokes shorelines and destroys habitat.

Ships' ballast water is the number one source for aquatic invasive species introductions into marine ecosystems and the freshwater Great Lakes. Since 1959, the International Association for Great Lakes Research has estimated that 72% of aquatic invaders were transported to the Great Lakes region via ocean-ships' ballast tanks. The best example of damage is that of the zebra mussel, which was brought into the Great Lakes in 1988 through ballast water. What has this diminutive mollusk done? In the first years after it arrived (1989 to 1994), Great Lakes industries and municipalities spent $120 million to unclog water intake pipes blocked by masses of mussels. The U.S. Fish and Wildlife Service has recently estimated the potential economic cost of this single invader at $5 billion over the next ten years within the Great Lakes region alone.

When it comes to invasive species, time is our enemy. New invaders are entering our waters through ballast water every year – we will never be certain which species will arrive and how calamitous their impacts will be – but we know they will keep coming if we do not act.

Are we better off being reactive, rather than taking steps to prevent the introduction of species like zebra mussels in the first place? We are not. There is near universal consensus that, when it comes to aquatic invasive species control, an once of prevention is worth a pound of cure. Aquatic ecosystems are among the most difficult natural communities in which to detect new invaders. Similarly, control programs will often require expensive and endless efforts. Preventing introductions is far more cost-effective.

A "wait and see" approach is particularly unwise, because there is evidence that the accumulation of invasive species is having unpredictable, negative effects. Each new invader that enters an aquatic ecosystem presents complex individual and synergistic effects as it interacts with both native species and other already-established invaders. For example, Lake Erie botulism outbreaks have killed tens of thousands of fish and waterfowl, and pose a potential threat to human health. These outbreaks may be occurring because birds and fish are feeding on now abundant non-native round gobies (an invasive bottom dwelling fish), which are in turn feeding on non-native zebra and quagga mussels. The non-native mussels concentrate the botulism in their biomass as they filter-feed.

The impacts of aquatic invaders on our economy and environment are clear and the role that ballast water transfer plays in bringing in new invaders is irrefutable. There is no question that action must be taken to curb introductions from commercial ships.

Both International and Domestic Action are Needed

The National Environmental Coalition on Invasive Species applauds the efforts of the International Maritime Organization (IMO) in taking critical first steps in preventing the movement of species in ballast tanks due across the globe. The IMO's ballast convention is a way to strengthen global mechanisms and regulations to prevent the passive transfer of aquatic invasive species via international trade. We thank U.S. negotiators who

worked for many years pursuing strong standards within the IMO ballast convention. We encourage continued U.S. leadership specifically through IMO efforts related to invasive species.

Despite its global importance, the IMO ballast convention cannot stand alone as protection for U.S. waters. Negotiating parties were well aware of this when they built guarantees into the convention to allow participating countries the flexibility set stronger domestic ballast water regulations. The IMO approach to preventing aquatic invasive species transfer is not sufficiently protective for U.S. waters. Inadequacies of the IMO ballast convention include not taking a "whole ship" approach to prevention; the establishment of weak discharge standards; and lengthy timelines for implementation pending ratification. Recalling the IMO convention's flexibility on national measures, the U.S. should move forward immediately to set more effective and timely domestic ballast water standards than those included in the agreement.

Pass The National Aquatic Invasive Species Act

The National Environmental Coalition on Invasive Species strongly encourages the immediate passage of the National Aquatic Invasive Species Act (NAISA). Provisions contained in NAISA are precisely the domestic actions needed to complement the IMO ballast convention. NAISA does the following:

- Sets more effective and timely domestic ballast water standards
- Provides a more comprehensive approach to aquatic invasive species prevention and control across the country.
- Covers the geographic range and taxonomic diversity meaningful for effective aquatic invasives control.
- Supports monitoring efforts for new invaders; research and rapid response, identification and management of high-risk pathways; and, screening and regulation of potentially invasive imports.

Exemptions provided in NAISA for coastal voyages are warranted to ensure that regulation does not become burdensome on domestic boat traffic and trade that pose minimal risk of spreading invasive species. However, it is important that these exemptions do not extend to high-risk pathways and end up facilitating the spread of invasive species among different aquatic ecosystems. For example, Port Valdez in Prince William Sound, Alaska, receives the third-largest volume of tanker ballast water of all U.S. ports, and about one-half of this water is discharged directly into the Sound. A Smithsonian Institution study found thirteen non-native crustaceans, one fish, and numerous microorganisms already established in the Sound. The study also found that the similarities in temperature and salinity between Port Valdez and common ballast source waters make it likely that many species introduced to the Port through ballast water will survive. Yet, the oil tanker fleet working in Prince William Sound is currently subject to no ballast water management regulations, because existing ballast water management regulation does not apply to vessels operating entirely within the U.S.

Exclusive Economic Zone. Oil tankers are free to take on ballast water in West Coast ports such as San Francisco Bay and Puget Sound, which support large populations of economically and environmentally detrimental invasive species, travel to Prince William Sound and discharge that ballast water directly into Port Valdez. NAISA should be written to prevent the invasions that are occurring and will continue to occur through domestic trade vectors such as this one.

Establish Ballast Water Standards

The environmental community and the shipping industry agree completely on a critical point. The lack of a domestic ballast water standard is a significant impediment to developing ballast water treatments and technologies, for the simple reason that it is hard to achieve a goal if the goal has not been defined.

The National Environmental Coalition on Invasive Species supports the establishment of aggressive, yet achievable interim ballast water standards to encourage technology development. Standards that define the amount of living material, based on size categories, would be aligned with the approach taken by the IMO. Further, establishing domestic size-based categories, such as a 100% kill of organisms larger than 50 microns, is one potential interim standard. We cannot overstate the importance and grave need to rapidly establish effective final ballast water standards that are proven to protect national waters from ballast-mediated invasions. Indeed, after sufficient field monitoring, the 0.1-micron standard, a proposed alternative put forth by the U.S. Coast Guard in its 2003 preliminary environmental impact statement for the proposed regulatory action to establish a ballast water discharge standard, may be shown to be sufficiently stringent as a final ballast water standard.

Encourage Effective and Environmentally Sound Treatment Technologies

Interim and final ballast water standards set goals, but do not define how those goals are reached. Such flexibility is warranted because it encourages development and testing of diverse technological and methodological solutions. However, solutions should be constrained with respect to their environmental impacts. Requirements should be put in place to minimize adverse impacts of ballast water treatment to the structure and function of ecosystems and non-target organisms. Such requirements should include review of proposed treatment approaches by a third party such as the U.S. Environmental Protection Agency.

In particular, any proposed use of biocides must include an examination of the impact of the residual discharge of the biocide itself, as well as the discharge of any by-products of biocide-ballast tank content chemical reactions. As supported by the National Invasive Species Act, non-chemical technologies should be increasingly favored.

Funding

Federal appropriations have been inadequate and have been delivered in ways that are insufficiently flexible to address America's growing invasive species problem. In particular, more funding should be targeted toward:

- Early detection and monitoring to identify new invasions
- Rapid response capability to control newly detected invasive species
- Prevention efforts to reduce the likelihood of new invasions.
- Research to assess potential impacts of invaders, refine our understanding of pathways, and evaluate control methods
- Enforcement of regulations
- Outreach and education to prevent the spread of aquatic invasive species

We support the constructive use of economic policy tools, such as incentives, to prevent harmful invasions and to control them when they occur. This could include implementation of a fee-based approach, such as has been used successful in the past to create the Oil Spill Liability Trust Fund.

Conclusion

The National Environmental Coalition on Invasive Species stresses the need for immediate action – time is not on our side. The threat of aquatic invasive species introductions is growing with the increase of international trade. Aquatic invasive species permanently, and often dramatically, alter the natural resources of the United States and impose continually increasing economic costs. It is imperative that we stop as many of these invaders as possible, as soon we can.

It is a tremendous responsibility and challenge to maintain the integrity of our country's resources. Your leadership on this issue will be critical in determining whether we rise to meet this challenge or fall, to the disappointment of future generations living under a sea of invasive species.