



CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

September 2, 2005

S. 363

Ballast Water Management Act of 2005

*As ordered reported by the Senate Committee on Commerce, Science, and Transportation
on July 21, 2005*

SUMMARY

S. 363 would amend current law to require the U.S. Coast Guard (USGC) to establish new standards and procedures for controlling the spread of aquatic invasive species through ballast water. Assuming appropriation of the authorized amounts, CBO estimates that implementing the bill would cost \$10 million in 2006 and \$85 million over the 2006-2010 period. S. 363 could increase revenues, but we estimate that any such increases would not exceed \$500,000 in any year.

S. 363 contains intergovernmental mandates as defined in the Unfunded Mandates Reform Act (UMRA) because it would preempt some states laws and impose new requirements that may affect some public transportation vessels. CBO estimates that the total cost of complying with these mandates would not exceed the annual threshold established in that act (\$62 million in 2005, adjusted annually for inflation).

S. 363 would impose private-sector mandates, as defined in UMRA, on owners and operators of certain vessels equipped to carry ballast water and manufacturers of such vessels. CBO cannot estimate the aggregate cost of the private-sector mandates in the bill primarily because the technologies to treat ballast water to meet the standards specified in the bill have not been fully developed. Though CBO cannot estimate the cost of each mandate, we expect that the aggregate cost of private-sector mandates in the bill would exceed the annual threshold established in UMRA (\$123 million in 2005, adjusted annually for inflation) sometime during the first five years after the new standards are put into effect. We expect those standards to become effective after 2009. That conclusion is based on the findings of current research that the technology being developed to treat ballast water would cost hundreds of thousands of dollars per vessel.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

For this estimate, CBO assumes that S. 363 will be enacted near the start of fiscal year 2006 and that funds will be provided as specified in the bill. The estimated budgetary impact of S. 363 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment).

	By Fiscal Year, in Millions of Dollars					
	2005	2006	2007	2008	2009	2010
SPENDING SUBJECT TO APPROPRIATION						
Spending Under Current Law						
Budget Authority ^a	5	0	0	0	0	0
Estimated Outlays	5	0	0	0	0	0
Proposed Changes						
Authorization Level	0	20	20	20	20	20
Estimated Outlays	0	10	15	20	20	20
Spending Under S. 363						
Authorization Level ^a	5	20	20	20	20	20
Estimated Outlays	5	10	15	20	20	20

a. The 2005 level is the amount appropriated to the USCG for that year for programs related to ballast water.

BASIS OF ESTIMATE

S. 363 would authorize the appropriation of \$20 million a year over the 2006-2010 period for the USCG to establish and implement new regulations aimed at reducing the spread of invasive aquatic species through ballast water. (Ballast water is carried in tanks by some ships to maintain stability.) Under the bill, the USCG would specify standards and procedures that operators of certain U.S. vessels must follow when treating or discharging ballast water and sediment. The bill would establish civil penalties for violations of those standards and procedures.

Based on information from the USCG about spending patterns for existing programs to regulate the use of ballast water, CBO estimates that S. 363 would cost \$10 million in 2006 and \$85 million over the next five years. We also estimate that any increased revenues from civil penalties established under S. 363 would not exceed \$500,000 in any year.

ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

Current regulations require U.S. and foreign vessels, equipped with ballast tanks that operate in the waters of the United States and are bound for ports or places in the United States, to report on and conduct activities relating to ballast water exchange. Enacting S. 363 would place additional requirements on those vessels by requiring the implementation of systems to treat ballast water. Vessels owned by state and local governments that do not meet exemption standards would be required to comply. The duty to comply would be an intergovernmental mandate as defined by UMRA. CBO estimates, however, that the costs to those entities would be small because we expect that few publicly owned vessels would be affected by the regulations.

S. 363 also would preempt state and local laws that would be inconsistent or conflict with the new federal requirements. (The bill would specifically preserve state and local authority to impose greater penalties or fees for acts or omissions that are violations of the act.) This preemption constitutes a mandate as defined by UMRA; however, any costs to state and local governments would be minimal. In total, the costs of the intergovernmental mandates in the bill would fall significantly below the threshold established in that act (\$62 million in 2005, adjusted annually for inflation).

ESTIMATED IMPACT ON THE PRIVATE SECTOR

S. 363 would impose private-sector mandates, as defined in UMRA, on owners and operators of certain vessels equipped to carry ballast water and manufacturers of such vessels. Ballast water is held in the ballast tanks and cargo holds of vessels to provide balance and stability during a voyage and is considered one of the major ways in which invasive species enter U.S. waters. The bill would prohibit certain vessels from discharging ballast water except after conducting ballast water exchange in compliance with federal regulations; or using ballast water treatment that meets the performance standards specified in the bill; or using environmentally sound alternative ballast water treatment approved by the Secretary of Homeland Security. During the period before 2009, most vessels would comply with the mandate by conducting ballast water exchange. Ballast water exchange involves replacing coastal water with open-ocean water during a voyage. This process reduces the density of coastal organisms in ballast tanks that may be able to invade a recipient port, replacing them with oceanic organisms with a lower probability of survival in near-shore waters. Certain exemptions from the requirement—such as for safety of crew, passengers, and vessels—would be allowed.

In general, the bill would require owners and operators of vessels to conduct all ballast water management operations in accordance with a ballast water management plan that meets the requirements prescribed and approved by the Secretary. Currently, vessels are required to have ballast water management plans and follow mandatory ballast water management practices under Coast Guard regulations; those regulations include maintaining a ballast water record book on board the vessel and conducting ballast water exchange. The bill would add two additional requirements: (1) each vessel's ballast water management plan would have to be approved by the Secretary, and (2) vessel operators would be required to maintain the record book on board the vessel for an extended period of time. Because vessels are already in compliance with most of those requirements, CBO expects that the incremental costs to comply with mandates during the period before 2009 would not be large.

Beginning in 2009, the bill would implement, in four phases, a performance standard for the treatment of ballast water. The performance standard contains a series of concentration levels for living organisms and microbes allowed in the discharge of ballast water. Vessels would be scheduled to comply with the performance standard based on their ballast water capacity and date of construction. The first two phases would apply the standard to newly constructed vessels, and phases three and four would apply the standard to vessels currently in operation. Although a number of technologies for ballast water treatment are being tested, none have been proven to effectively reduce invasive species.

According to several industry experts, however, recent research and testing of treatment technologies indicate that the cost to install ballast water treatment technologies could amount to hundreds of thousands of dollars per vessel.

Few vessels of the type that would have to comply with the performance standard are manufactured in the United States. The cost of the mandate for U.S. manufacturers in the first two phases of implementation would not be significant. Vessels equipped to handle ballast water purchased by U.S. entities for use in U.S. waterways would have to comply with the performance standard beginning in the first phase. Depending on the number of vessels purchased, the incremental cost to U.S. entities could be tens of millions of dollars. Beginning in phases three and four, when vessels in operation must meet the performance standard, the total cost of the capital investment and installation for owners and operators of U.S. vessels and foreign vessels with operations in the United States could be substantial—potentially hundreds of millions of dollars. Consequently, CBO estimates that the cost to comply with the performance standards for treatment of ballast water would likely exceed the threshold for private-sector mandates established by UMRA (\$123 million in 2005, adjusted annually for inflation) sometime during the first five years after the new standards are put into effect. We expect those standards to become effective after 2009.

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