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Foreword

The AASHTO Waterborne Freight Transportation Bottom Line Report presents a comprehensive overview of the United States marine transportation system. It documents the importance of the MTS—ports on three coasts, the Great Lakes, and the inland waterways—to the strength and competitiveness of the nation’s economy. The report details the challenges the system faces; and it offers options to increase investment and better manage the MTS.

The report attempts to answer the following questions:

- What is the marine transportation system?
- Why is the marine transportation system important?
- What are the threats to the continued performance of the marine transportation system?
- What are the alternatives to address these challenges?

AASHTO commissioned the Waterborne Freight Transportation Bottom Line Report because the navigable waterways in 38 of the 50 states provide substantial economic benefits to the entire United States. State departments of transportation recognize the significant role the nation’s marine transportation assets play in terms of freight mobility as well as recognize that adverse effects for highways should waterborne freight be diverted.

As important as it is to understand how the marine transportation system works, it is equally necessary to understand the consequences of a marine transportation system that does not work.

Decisions made by the private sector, the federal government, and AASHTO members will determine how the national marine transportation system can reach its optimal potential as a premier mode of freight transportation in the coming decades. The time for action is now.

Along with highways, freight railroad networks, and airborne cargo, the marine transportation system is a part of an overall national freight transportation system that must work together to ensure the United States remains a global economic leader.

AASHTO is pleased to offer this report for the use of those who are committed to ensuring the United States has the best transportation system in the world.
Acknowledgements

This report is the result of the efforts of many people. It was initiated by the AASHTO Standing Committee on Water Transportation (SCOWT), which is chaired by Sean T. Connaughton, Secretary of Transportation for the Commonwealth of Virginia. Secretary Connaughton provided the leadership and determination that made the report possible and guaranteed its quality. At critical junctures, SCOWT’s Vice-Chair Sharon Balfour, Marine and Rail Administrator for the Louisiana Department of Transportation and Development, contributed her energy, enthusiasm, and wide experience to the process.

In addition, many other SCOWT members commented on drafts of the report and provided material that is included. SCOWT member states demonstrated their belief in the importance of this report through funding commitments that provided necessary resources.

The report was prepared under a contract with Cambridge Systematics, Inc., by a consulting team led by Alan Meyers, Principal.

A number of knowledgeable professionals were consulted, including representatives of the United States Army Corps of Engineers; United States Department of Transportation and its Federal Highway, Rail, and Maritime Administrations; the American Association of Port Authorities; and the National Waterways Conference, who provided valuable advice and input on the scope and direction of the investigation. Their contributions are much appreciated but they should not be held responsible for any of the report’s findings or action alternatives.
Executive Summary

From the initial settlement of North America, through colonization and expansion, and to the present
day, where and how we live has been determined in large part by waterborne transportation. Today, the
United States relies on its Marine Transportation System, or MTS, for access to global markets and global
products, and for domestic goods movement as an alternative to congested surface transportation.

The MTS includes facilities on three coasts, the Great Lakes, and the Inland Waterways; it serves every
state, either directly by water or indirectly via highway and rail connections; and it supports trillions
of dollars in U.S. economic activity annually. The MTS evolved as a decentralized system comprised of
many different stakeholders and responsible entities, with funding coming from a variety of public and
private sources.

By many measures, the MTS is a great success; it has recovered from the recent recession and is handling
near-record freight volumes. But looking forward, the MTS faces critical challenges: decades of insuffi-
cient system maintenance, which have left many parts of the MTS inoperable or on the brink of failure;
excessive delays in navigation project delivery; inadequate and unpredictable funding for critically
needed MTS improvements; lack of a national strategy to ensure the MTS provides the greatest bene-
fit to the nation as a whole; and the fact that there is no locus of responsibility for the well-being of the
MTS, and its failure or success.

To promote discussion and action, the American Association of State Highway and Transportation
Officials (AASHTO) commissioned this Waterborne Freight Transportation report. The report describes the
nature, extent, and critical role of the MTS, and offers a number of findings and conclusions for consider-
ation, and possibly adoption, by AASHTO and others.

The main finding is this: with respect to waterborne freight, “business as usual” will lead to unaccept-
able further declines in MTS condition and performance, and to significant lost opportunities for our
nation’s economy. A renewed national commitment to the MTS is urgently required, along with corre-
sponding changes in how to plan for and fund the MTS. Options for change include: 1) federal legisla-
tion to achieve full state-of-good-repair for MTS waterways, guarantee full utilization of funds collected
for MTS improvements, and significantly improve the cost, speed, and reliability of MTS project de-
ivery; 2) a new Office of Multimodal Freight, under the Secretary of Transportation, empowered and
directed to eliminate the current balkanization of MTS planning, funding, and project delivery responsi-
bilities, and advance sound planning and project implementation; and 3) promotion of best practices in
MTS planning and investment at the state, regional, and local levels.

Water has been, and remains, a fundamental driving force in shaping the physical and economic
development of the United States. Inland rivers and coastal routes were the continent’s primary
transportation corridors, long before there were roads. Later, improved harbors and canals were the
nation’s first improved freight corridors. Settlement patterns and industrial development naturally
followed the coasts and waterways, because they provided access to marine resources and offered
the only economically viable means of moving goods. Our first cities were port cities.
With advancing industry and technology and the rise of transcontinental railroads, the critical role of waterways did not diminish: rather, it took on a different and enhanced importance. Railroads built new connections between coastal and inland waterways, promoting the growth of interior cities and fueling America’s industrial revolution. Later as the U.S. highway network developed, population and production centers moved off the waterways but did not lose their need for waterborne transportation. Truck-only local services, combined rail-truck long-haul services, and advanced logistics practices evolved to ensure these growing inland markets remained connected to the water.

Today, America’s Marine Transportation System (MTS) remains a critical element of our domestic transportation infrastructure and our primary gateway for global trade. The MTS includes navigable waterways and public and private ports on three coasts (Atlantic, Pacific, and Gulf), the Great Lakes, and inland waterways. It also includes, by extension, the use of inland highway and rail connections that connect ports with inland markets, ensuring access to the water for shippers and receivers in all 50 states. The MTS includes 8,197 cargo-handling docks, 179 ports handling more than 250,000 tons annually, and 52 ports handling containers.

### Table ES-1. MTS Volume and Value, 2011

<table>
<thead>
<tr>
<th></th>
<th>Domestic</th>
<th>International</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tons (millions)</td>
<td>Import</td>
<td>Export</td>
</tr>
<tr>
<td>Tons (millions)</td>
<td>887.9</td>
<td>869.1</td>
<td>610.4</td>
</tr>
<tr>
<td>Loaded TEUs (millions)</td>
<td>2.0</td>
<td>17.1</td>
<td>11.7</td>
</tr>
<tr>
<td>Value ($ billions)</td>
<td>151.4</td>
<td>1,066.0</td>
<td>473.1</td>
</tr>
</tbody>
</table>

Sources: U.S. Army Corps of Engineers (tons and TEUs) and U.S. DOT Freight Analysis Framework-3 (value).

In 2011, the MTS handled more than 2.3 billion tons of cargo—the equivalent of over 100 million fully-loaded five-axle combination trucks, which would stretch more than 1 million miles if parked end-to-end. The MTS carried more than 1.4 billion short tons of international cargo worth more than $1.5 trillion dollars; this represents more than 99 percent of U.S. trade tonnage outside of North America. The MTS handled 43 percent of our trade value with all nations, and 69 percent of our trade tonnage with all nations. The MTS also carried almost 900 million tons of domestic cargo worth more than $150 billion dollars.

The MTS handles raw materials and intermediate products such as petroleum, fuel, agricultural products, building materials, metals and ores, and chemicals; as well as finished products such as automobiles, electronics, machinery, clothing, furniture, and food. Much of our international trade in higher-value finished products is accommodated by intermodal shipping containers, seamlessly exchanged between ships, rail cars, and truck chassis. In 2011, the MTS carried more than 30 million loaded TEUs (20-foot equivalent units) of containerized traffic. Domestic trade is heavily focused on non-containerized commodities—grains, fuels, etc.—in bulk form, but there is increased attention to possibilities for domestic container trade on the coastal and inland waterways. Projections suggest that by 2040, total MTS tonnage will double, while container traffic will grow between three and four times.
The MTS is so fundamental to the U.S. economy, so embedded in the chain of domestic and global production and consumption, that without the MTS the economies of every state and the nation would be structurally different. While the full value of the MTS has yet to be quantified, recent studies have examined its major components:

- **Great Lakes.** “Great Lakes–St. Lawrence Seaway shipping is one of the key drivers of the U.S. and Canadian economies. The industry creates 227,000 jobs in the two countries, and produces business revenues of $35 billion… It also supports the economic health of North America’s industrial heartland and a consumer market of more than 100 million people. To keep their businesses running, U.S. and Canadian electric utilities, steel mills, construction companies, mining companies, manufacturers, and farmers all depend on the 164 million metric tons of cargo delivered by Great Lakes vessels every year. These cargoes become the automobiles North Americans drive, the office buildings they work in, the energy that heats their homes, the salt that keeps roads safe, and the food they put on the dinner table. Marine transportation on the Great Lakes–Seaway System provides $3.6 billion (U.S.D) in annual transportation cost savings compared to the next least expensive all-land transportation alternative. This enhances the global competitiveness of North American products and industries and keeps the cost of consumer goods down.”

- **Inland Waterways.** “In 2006, Ohio River Basin commercial navigation users saved $3.1 billion by using the Ohio River System (ORS) waterway to ship coal, steel, chemicals and other commodities by barge. For the entire U.S. inland river system, using an estimated $10–$12 per ton shipper savings, national transportation shipper savings would be in the neighborhood of $7.0 billion… A University of Tennessee Center for Transportation Research study found that barge navigation on the ORS navigable channel contributed a total of $497 billion in sales and 80,000 annual jobs to the nation’s economy. This $497 billion in sales, discounted over 44 years at 3 percent, yields an annual $20.5 billion (of this, $3.1 billion is shipper savings, leaving $17.4 billion for the annual economic impact).”

- **Deep Water and Coastal Ports.** “[Deep water] public ports contribute significant benefits to local and regional economies, including generating business development and job opportunities. Commercial port activities in 2007 created employment opportunities for more than 13.3 million Americans, including nearly 12 million who were employed in exporter/importer-related businesses and support industries throughout the U.S. Business activities related to waterborne commerce contributed approximately $3.15 trillion overall to the U.S. economy, and those same businesses paid nearly $212.5 billion in Federal, state, and local taxes. Seaport activities alone in 2007 accounted for $31.2 billion in Federal, state, and local tax revenues.”

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1 The Economic Impacts of the Great Lakes–St. Lawrence Seaway System. Martin Associates; October 18, 2011.

2 Toward a Full Accounting of the Beneficiaries of Navigable Waterways. University of Tennessee Center for Transportation Research, January 2011.

Table ES-2. Summary of Available MTS Economic Impact Estimates

<table>
<thead>
<tr>
<th>Jobs (Direct, Indirect, Induced)</th>
<th>Annual Impacts (Billions of Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wages</td>
</tr>
<tr>
<td>Great Lakes (U.S.) (2011)</td>
<td>128,227</td>
</tr>
<tr>
<td>Ohio River System (2011)</td>
<td>80,000</td>
</tr>
<tr>
<td>Other Inland Waterways (2011)</td>
<td>–</td>
</tr>
<tr>
<td>Deep Water and Coastal (2007)</td>
<td>1,325,531</td>
</tr>
<tr>
<td>U.S. Importers and Exporters (2007)</td>
<td>11,995,102</td>
</tr>
</tbody>
</table>

Sources: Martin Associates, University of Tennessee Center for Transportation Research.

Freight movement over the MTS provides other important benefits—reductions in highway congestion, transportation costs, rail system congestion, fuel consumption, and air emissions—worth billions of dollars annually to the U.S. economy. Other extremely valuable benefits of the MTS include, but are not limited to: military mobilization and resupply; passenger transportation; commercial fishing; shipbuilding; vessel repair, maintenance, and servicing; construction and salvage; offshore oil and gas exploration; offshore pipeline and telecommunications system construction and maintenance; law enforcement; incident management and environmental/emergency response; marine research; hydropower; municipal water; irrigation water; flood control; and recreational fishing and boating.

The basic shape of the MTS was initially defined by the location of protected, deep natural harbors and reliably navigable inland waterways. Over the years, these first-generation assets have been improved, new deepwater ports and terminals have been constructed, and new waterway mileage has been added to the system. But unlike the U.S. highway system, which largely emerged as the result of coordinated planning and close partnership between federal and state governments, the MTS has evolved without larger-scale coordinated policy and planning.

- The federal government—acting principally through the U.S. Army Corps of Engineers—has been primarily responsible for constructing and maintaining a set of federally-authorized navigation channels. Corps appropriations for navigation projects have, over the past decade, averaged $1.5 to $2 billion per year.\(^4\) Costs for deep-draft improvements are typically shared with local sponsors.

- Multi-state authorities, state agencies, regional authorities, and local governments have built marine terminals, often in direct competition with neighbors. Private industries have also built their own marine terminals, typically to accommodate the movement of bulk materials. A survey by the American Association of Port Authorities found that U.S. ports and their partners plan to invest $46 billion in MTS infrastructure by 2017.\(^5\)

- Local, regional, and state planners, recognizing the economic benefits of port operations as well as their potential impacts on transportation systems, communities, and the environment, have


provided landside connections and made land use decisions affecting port development and expansion.

• Railroads have developed lines and services to connect marine terminals with inland and cross-country markets. The railroads compete with each other, but they also cooperate with each other and the public sector on projects of mutual benefit (such as Southern California’s Alameda Corridor and Chicago’s CREATE).

• Ocean and waterway carriers select ports of call based on the particular port arrangements (location, accessibility, vessel size capacity, terminal operating cost structure, etc.) that allow them to profit from the customer services they provide.

• Freight shippers and receivers have developed privately-owned logistics infrastructure—warehouse/distribution centers, manufacturing/processing plants, etc.—either at ports or at inland locations connected to ports via rail and/or truck.

The common theme in MTS development has been market opportunism, from both the private and public sectors. Ports and related infrastructure and services develop and evolve independently, to capture, maintain, and grow specific market niches. There is no “master plan” for the MTS; each port, stakeholder, and region pursues its own business mission. The result is that the MTS is, as some have described it, a “collection of competitors.”

Overlaid on this competitive structure is a significant federal role. The maintenance and improvement of federal waterways is the responsibility of the U.S. Army Corps of Engineers (Corps). The work of the Corps is funded from the Harbor Maintenance Trust Fund (supported by an ad valorem fee on imports and domestic traffic), the Inland Waterways Trust Fund (supported by a fuel tax on inland waterway traffic), annual general fund appropriations, and cost-sharing with local sponsors. Needed highway connections, and in some cases support for rail connections, are generally provided by state and regional governments through the allocation of federal and non-federally sourced transportation funds. Major MTS projects require extensive environmental studies and regulatory approvals at the federal, state, and local levels. While the MTS is not planned at the federal level, the competitive aspirations of ports and stakeholders may be significantly facilitated, limited, or managed by the availability of project funding and approvals at the federal level.

Other types of collaboration are essential. Traditionally, ports work closely not only with their Corps Districts, but also with their local and regional and state governments, their railroads, and other stakeholders. Ports often work together on projects and issues of mutual interest. In recent years, there have been efforts to bring together the full range of public and private sector stakeholders through the Committee on the Marine Transportation System (CMTS) and the MTS National Advisory Committee (MTSNAC).

The MTS has been fundamental to the economic success of the nation. It has been highly adaptable and responsive to changing market conditions and needs; it has given producers in every state efficient access to global markets; it has provided consumers in every state with efficient access to global products; and it has dramatically reduced the nation’s surface transportation costs and ton-mileage. But the very success of the MTS has masked serious underlying structural problems. In recent years—with growing demand, rising transportation and project development costs, increased
attention to environmental issues, and stronger global competition, these structural problems have become more evident. If left unaddressed, they pose critical threats to the long-term health of the MTS and the nation as a whole.

- **Basic waterway maintenance needs are not being met.** The U.S. Army Corps of Engineers is responsible, among other things, for maintaining federal navigation channels at authorized navigable depths. For years, appropriated funding for the Corps’ annual work programs has fallen far short of requested and required amounts, resulting in a critical backlog of unfunded maintenance dredging projects and a significant amount of waterway system mileage operating at less than authorized depths. Failure to maintain authorized waterway depths means lighter vessel loadings and increased shipping costs; in the most extreme cases, some shallow-draft waterways have become completely inoperable. A recent study by the Texas Transportation Institute found that losing just one foot of navigable depth from the Houston ship channel results in added costs of around $375 million per year.6 Similarly, the Corps faces a critical backlog of projects to modernize antiquated locks and dams. The MTS includes 238 lock chambers with an average age of 58 years; out-of-service times are increasing every year, costing U.S. shippers millions in delays, light-loaded vessels, and other costs. According to a recent report by the American Society of Civil Engineers, in 2010, delays on the inland waterway system cost users $33 billion, while insufficient harbor depths cost users around $7 billion.7

- **Needed navigation projects are often delayed for years, even decades.** Project studies can take many years, even spanning decades, before reaching conclusions and allowing projects to advance. And even after being authorized, federal funding may never materialize. A decentralized MTS responds well to market-based opportunities at the local and regional level—but does not deliver projects efficiently because regulatory and funding authority is balkanized across dozens of stakeholders and multiple levels of government. Critically needed projects tend to advance sluggishly, and in some cases do not advance at all.

- **Funding for critical MTS expansion needs is inadequate and uncertain.** Normal maintenance and limited expansion of terminals, landside access infrastructure, and vessel berths is typically accomplished through a combination of port revenues, state and regional contributions, and private participation. But major navigation projects generally require special funding arrangements: revenue bonds, significant state and regional funding, and federal support. However, appropriations for the Corps for both construction and maintenance projects have consistently fallen short of the levels needed to implement authorized projects and adequately maintain the system. As a result, huge work backlogs have accumulated, and in the absence of action the backlog will only continue to grow. In light of the massive funding shortfalls for federal navigation construction and maintenance projects, improving the reliability and quantity of federal funding available for these purposes is absolutely essential.

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• National investments in the MTS are not being effectively targeted to meet national needs and provide national benefits. The nation as a whole derives benefit from the MTS, and it is reasonable to expect that national investments should be clearly tied to the achievement of national benefits. Yet port and MTS planning at the national level is, apart from national defense issues, non-existent. Ports, regions, and railroads pursue MTS improvements independently, to fulfill their own local or regional or business missions. Federal studies and investments are responsive to local requests, but are not targeted to maximize MTS benefits for the nation as a whole. What the nation needs from its MTS, and what it should expect from its MTS investments, has not been defined.

• Responsibility for the well-being of the MTS and accountability for its failure or success is widely diffused. Underlying each of these problems—inattention to basic maintenance, inadequate funding, inefficient program delivery, and inattention to the national interest as a whole—is the fact that there is no locus of responsibility for its well-being, its vitality, its future, and for ensuring the nation receives the best possible return from its investments in the MTS.

Embracing business as usual will inevitably lead to significant further declines in MTS condition and performance, and to lost opportunities for our transportation system and economy. Those who consider these outcomes to be unacceptable must argue that a renewed national commitment to our MTS is urgently required, along with corresponding changes in how to plan and fund the MTS.

MTS stakeholders would agree that decisive and positive action now will yield unprecedented benefits. With recovery underway, global trade is again nearing record levels. Following national policy direction, many states are setting explicit goals to dramatically increase their export business as a means of balancing trade and growing their economies. With growing highway congestion, waterborne transportation becomes an even more attractive transportation alternative. Waterborne trade and transportation will be cornerstones of the 21st century economy.

However, there is not a solid consensus among all MTS stakeholders on the best way to proceed. Therefore, to promote discussion and action, AASHTO developed this first-ever Waterborne Freight Transportation report. The report describes the nature, extent, and critical role of the MTS, and offers the following alternatives for action:

1. Pass federal legislation to improve the reliability of MTS funding and achieve full state-of-good-repair for MTS waterways by the year 2020.

   a. Congress should direct the U.S. Army Corps of Engineers to prepare a comprehensive inventory and plan to address the nation’s deferred navigation system maintenance needs—locks and dams, inland waterways, Great Lakes channels, and coastal port channels—by the year 2020. The plan should specify the funding requirements and processes, and as part of its direction, Congress should make clear its intent to fully fund the identified need. This plan could be adopted as part of the Water Resources Development Act (WRDA) or in parallel.

   b. The administration’s decision to “fast track” a number of critical Corps projects was encouraging.8 As a follow-up, Congress and the administration should advance a new Water Re-

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8 July 19, 2010. The “We Can’t Wait” initiative addresses Corps projects at the ports of Savannah, New York/New Jersey, Miami, Jacksonville, and Charleston.
sources Development Act, featuring comparable attention to fast-tracking and streamlined project delivery. The new WRDA should include an update of the Corps’ benefit-cost evaluation methods, which are currently tonnage-dependent, to allow for consideration of a broader range of local, regional, and national benefits. The new WRDA should also identify full funding strategies for authorized projects, based on trust fund proceeds, anticipated general fund appropriations, and new funding sources.

c. Legislation should advance to require full utilization of Harbor Maintenance Tax (HMT) funds, and to exclude domestic container traffic from the HMT as a means of promoting domestic “Marine Highway” services.

2. Establish a new Office of Multimodal Freight, under the Secretary of Transportation, that would have as one of its responsibilities elimination of the balkanization of MTS planning, funding, and project delivery.

a. The Secretary of Transportation should act to create a new Office of Intermodal Freight within the U.S. Department of Transportation. The mission for the new Office would be to promote efficient freight movement via all modes, including water, and to promote the health of all freight transportation systems, including the MTS. The Office would be empowered to cooperate with and coordinate the actions of the multiple federal agencies responsible for MTS planning and project delivery, and to receive guidance from the full range of public and private MTS stakeholders. To be clear, the intent is not to federalize MTS planning—rather, it is to ensure that MTS improvements identified and implemented at the local, regional, and state levels have an effective champion at the federal level, providing what some have called “stewardship of the whole.”

b. Upon establishment, the new Office should act to identify, evaluate, and promote proposals for increased MTS funding and improved funding reliability. A full range of possibilities, such as taxes, user fees, federal solutions, local approaches, and private contributions should be examined.

c. Upon establishment, the new Office should immediately act to provide guidance to national freight planning activities required under MAP-21 surface transportation program legislation. This guidance should include: enhanced stakeholder coordination, building on prior CMTS and MTSNAC activities; creation of a system map and classification of MTS facilities, analogous to the National Highway System and the National Freight Network (consisting of highways) required under MAP-21; preparation of a formal MTS Condition and Performance Report, comparable to the report prepared for the National Highway System; preparation of a comprehensive Economic Impact report addressing the benefit of the MTS to the nation, and the costs to the nation of failing to maintain and expand it; a comprehensive approach to environmental analysis and mitigation strategies to facilitate MTS improvements; and preparation of a long-range vision plan for national MTS development and investment to meet national transportation and economic development objectives.

3. Identify and promote “best practices” for MTS planning and investment at the state, regional, and local levels. The MTS is not a federal system—it is a shared responsibility of private stakeholders and public partners at all levels of government. States have an important role in the
planning, improvement, and operation of the MTS. Today, each state addresses MTS issues and investments according to its own practices, needs, and resources. To accomplish this objective, “state of the practice” guidance should be developed by AASHTO and provided to state, regional, and local MTS stakeholders. “Fast track” guidance should be developed immediately to assist states in developing waterborne freight performance measures and MTS project recommendations for inclusion in MAP-21-compliant state freight planning activities, as input to the National Freight Strategy.

Table ES-3. Summary of Action Alternatives

<table>
<thead>
<tr>
<th>Issues</th>
<th>Action Alternatives</th>
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<tbody>
<tr>
<td>Basic waterway maintenance needs are not being met.</td>
<td>Direct the Army Corps to develop a plan to address the nation’s MTS maintenance backlog, and ensure funding to eliminate the backlog by the year 2020.</td>
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<td>Needed projects are often delayed for years, even decades.</td>
<td>Develop and adopt new Water Resources Development Act, focusing on upgraded project benefit-cost analysis and project-delivery streamlining.</td>
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<td>Funding for critical MTS expansion needs is inadequate and uncertain.</td>
<td>Pass legislation requiring full utilization of HMT funds, with HMT exemptions for domestic Marine Highway services.</td>
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<td>National investments in the MTS are not targeted to national needs and national benefits.</td>
<td>Establish new Office of Multimodal Freight, empowered to coordinate and advance MTS planning and projects:</td>
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<tr>
<td></td>
<td>– Improved MTS funding strategies</td>
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<tr>
<td></td>
<td>– Stakeholder coordination</td>
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<td></td>
<td>– Map and classification of MTS facilities</td>
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<td></td>
<td>– MTS Condition and Performance Report</td>
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<td></td>
<td>– MTS Economic Impact evaluation</td>
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<td></td>
<td>– Environmental Analysis and Mitigation strategy</td>
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<td>– Long-range national MTS vision</td>
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<tr>
<td>No locus of responsibility for the well-being of the MTS and accountable for its failure or success.</td>
<td>Promote best practice guidance for state, regional, and local MTS planning and investment, including “fast track” guidance for MAP-21 input and compliance.</td>
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</tbody>
</table>

All of the world’s industrial economies understand a simple fact: efficient transportation means lower costs and greater reliability for freight shippers and receivers, so that goods can be produced and purchased less expensively, which translates directly into a stronger competitive position in the global marketplace. Western Europe has been a highly integrated maritime economy for centuries, and developed along river and canal connections; today, their inland waterways serve much the same purpose as the U.S. rail system. Asian ports, following dramatic growth in the economies of Japan, Korea, and most recently, China, now dominate the list of the world’s largest container ports. Expanding economies in India and Brazil are being served by major port expansion programs ($60 billion in India and $17 billion in Brazil, according to the American Association of Port Authorities). Closer to home, Canada and Mexico have invested in marine terminals and rail connections that compete directly with U.S. ports for overseas trade, even as they provide better opportunities for increased waterborne trade within North America itself.

The United States has enjoyed a long period of unchallenged global economic dominance, during which it could afford to develop and fund the MTS on an incremental, piecemeal basis, without the benefit of firm funding commitments and an overarching national strategy. That time is ending. The nation faces great challenges but also great opportunities; and how effectively those challenges are met will define, to a significant degree, the economic future of the nation.

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