

**THE ECONOMIC IMPORTANCE AND FINANCIAL
CHALLENGES OF RECAPITALIZING THE NATION'S
INLAND WATERWAYS TRANSPORTATION SYSTEM**

(112-51)

HEARING
BEFORE THE
SUBCOMMITTEE ON
WATER RESOURCES AND ENVIRONMENT
OF THE
COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES
ONE HUNDRED TWELFTH CONGRESS
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Committee on Transportation and Infrastructure

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September 16, 2011

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MEMORANDUM

TO: Members of the Subcommittee on Water Resources and Environment

FR: Bob Gibbs
Subcommittee Chairman

RE: Hearing on “The Economic Importance and Financial Challenges of Recapitalizing the Nation’s Inland Waterways Transportation System.”

PURPOSE OF HEARING

The Water Resources and Environment Subcommittee is scheduled to meet on Wednesday, September 21, 2011, at 10:00 a.m. in 2167 RHOB, to receive testimony from the U.S. Army Corps of Engineers, a representative from the barge industry, a representative from the Inland Waterways Users Board, a representative from the agriculture sector, a representative from the inland navigation economics profession, and another nongovernmental organization to hear testimony on “The Economic Importance and Financial Challenges of Recapitalizing the Nation’s Inland Waterways Transportation System.”

BACKGROUND

History of the Inland Waterways Transportation System

Federal interest in navigation in the United States stems from the Commerce Clause of the Constitution. The history of inland navigation in the United States dates back to the 1820’s when Congress authorized construction of a canal connecting Lake Michigan to the Illinois River and authorized the United States Army Corps of Engineers to remove snags, debris, and other obstructions from the Mississippi and Ohio Rivers. These rivers and coastal ports were the primary routes of commerce for the new nation.

For nearly two centuries the federal government has dredged channels and built locks and dams, wing dikes, and other structures to create an Inland Waterway Transportation System for the efficient movement of goods. The System includes major rivers such as the Mississippi, Missouri, Ohio, and Columbia Rivers, as well as smaller waterways such as the Tennessee, Arkansas, Monongahela, and Hudson Rivers.

Today the Inland Waterways Transportation System provides an alternative to truck and rail and is the most cost-effective and energy efficient means for transporting commercial goods, especially major bulk commodities like grain, coal, and petroleum products. The Inland Waterways Transportation System is also a key component of State and local economies and job creation efforts and is essential in maintain economic competitiveness and national security.

The United States Army Corps of Engineers operates and maintains approximately \$235 billion worth of water resources infrastructure assets, including a network of 11,000 miles of the "fuel-taxed" Inland Waterways Transportation System. The Corps operates and maintains 221 lock chambers at 185 sites on 27 inland rivers and intracoastal waterways segments. The fuel-taxed Inland Waterways Transportation System carries over 546 million tons of freight annually.

Costs and Benefits of the Inland Waterways Transportation System

Benefits of the Inland Waterways Transportation System are numerous. For instance, one 15-barge tow on a river can carry as much cargo as 216 rail cars or 1,050 large trucks. If the cargo transported on the inland waterways each year had to be moved by highways, it would require 58 million truck loads.

Barges moving on waterways are safer, more fuel efficient, and less polluting than other means of transportation. For example, on average, a gallon of fuel can move one ton of cargo 155 miles by truck, 413 miles by train, and 576 miles by barge. Due to these efficiencies, carbon dioxide emissions were 2.1 million metric tons less in 2005 than if rail transportation had been used, and 14.4 million metric tons less than if trucks had been used.

Thirty-eight states are directly served by the Nation's Inland Waterways Transportation System, constituting 630 million tons of cargo valued at more than \$180 billion annually. At an average savings of more than \$14.00 per ton over an alternate overland mode, this equals \$9.2 billion in annual transportation cost-savings. Water transportation also has the potential to move huge amounts of cargo that could alleviate congestion on major highway arteries, such as I-95 on the Atlantic coast.

For some goods, as much as 50% of the ultimate price paid by the consumer is attributable to transportation costs. Keeping these costs low not only benefits consumers here in the United States, it also makes products produced in the United States more competitive on the world market. Congestion at an outdated lock on a waterway can result in increased costs that rob the farmer or manufacturer of his or her profit. Delay and its associated costs also can rob a farmer or manufacturer of his or her market.

This is not a speculative concern. Improved transportation systems in South America have allowed farmers there to keep their costs low enough to underbid United States grain farmers for customers *located in the United States*. America's farmers, like the rest of the United States economy, depend on modern, efficient, and reliable waterways as an integral part of the intermodal transportation system.

America's utility industry also is dependent on inland waterways. America's utility industry uses the inland waterway system to transport over 20% of the coal it consumes to produce electricity. More than 30% of the oil and petroleum products used across the Nation, and nearly all the home heating oil and gasoline used in New England, moves by barge.

Like private businesses, the Department of Defense heavily uses ports and waterways. Our armed forces depend on well-maintained United States ports to load military supplies and deploy troops at a moment's notice. In the build-up preceding Operation Desert Storm more than 540,000 troops and 500 shiploads of cargo were transported from 18 United States ports. Such movements were equally important during Operation Iraqi Freedom. The inland waterway system also contributes to defense readiness. Waterways move important national defense resources including vehicles and other supplies in large quantities for the nation's armed forces.

Fierce debate and controversy has centered on recapitalizing individual projects throughout the Inland Waterways Transportation System. Project opponents argue that new locks are not economically justified. The Corps and other applicable federal agencies have a difficult time making projections 50 years into the future and the Corps is also constrained by the types of benefits it is permitted to calculate. The Corps may only consider savings in the cost of shipping on the rivers and may not look at larger economic effects such as those on power producers and farmers, the ripple effects in businesses and farming communities, or the impact on the trade deficit. In addition, in its economic modeling, the Corps assumes a shipper always has the option of shipping by rail instead of barge, even though this is not always true.

The federal government in the past invested in the Inland Waterways Transportation System to generate economic opportunity by providing an alternative method and lower cost for moving of cargo. This investment does not guarantee that future cargoes will meet projected tonnages, however, this federal investment helps to mitigate some of the speculative risks associated with building to meet demand and helps to moderate rates on other transportation modes.

While the dispute over the projected benefits of a proposed navigation project is informative, ultimately it is up to Congress to determine what kind of waterway navigation system is appropriate for the nation. Investment in the nation's Inland Waterways Transportation System does not guarantee increased volumes of cargo, but an inability or unwillingness to make an investment almost guarantees no growth in volume will occur.

Benefits to shippers and freight transportation savings are only a small part of the benefits for the nation's Inland Waterways Transportation System. The Inland Waterways Transportation System also provides flood control benefits, increase nearby property values, provides water supply for nearby communities, generates hydroelectric power, provides recreational

opportunities, provides local and regional economic opportunities, and enhances national security capabilities and readiness.

Inland navigation also has had an impact on the Nation's ecosystem. Vessels using the system in the 1800s used wood for fuel, resulting in deforestation. Navigation locks and dams also impact fish by blocking fish movements through the dam, since most species can only pass during high flow periods when the dam gates are out of the river. Wing dams, closing dams, and bank revetments are used to maintain the navigation channel and reduce dredging requirements, but also force higher flows into the main river channel. This has reduced the number and quality of secondary channels.

Deforested areas were later developed as farmland, and while preventing forest regeneration, gave the United States a safe, locally grown food supply. In the river floodplain along the Upper Mississippi River-Illinois River system, agriculture counts as 50% of the entire floodplain area. To protect this valuable farmland from flooding, levees were constructed, thereby leading to the subsequent channelization of the Upper Mississippi River. Ditching of the floodplain to improve drainage increased the magnitude and timing of storm runoff and drained wetlands.

The Nation's inland waterways footprint contains millions of acres fish and wildlife habitat in the form of bottomland forest, islands, backwaters, side channels, and wetlands. For instance, the 2.6 million acre Upper Mississippi River-Illinois Waterway footprint contains hundreds of thousands of these acres that support 270 species of birds, 57 species of mammals, 45 species of reptiles and amphibians, 113 species of fish, and nearly 50 species of mussels. More than 40% of North America's migratory waterfowl and shorebirds depend on the resources, shelter, and habitat the region provides. More importantly, the region is home to 30 million Americans. Supplementing this diverse habitat, the region has 5 National Wildlife Refuges along the corridor comprising almost 300,000 acres.

These National Wildlife Refuges along the Upper Mississippi River-Illinois Waterway are a result of the navigation channel. These lands were originally project lands, but were transferred to the Department of the Interior to manage as refuges, preserving them from development.

Condition of the Inland Waterway Transportation System

Aging infrastructure along the Inland Waterway Transportation System also presents a challenge. More than 57% of these facilities have been in service for longer than 50 years, while almost 40% are more than 70 years old, and two locks built in 1839 remain in service today. Reliability of transportation networks is critical to the nation's economy. While this infrastructure has served the nation well, operation and maintenance expenditures will only slightly prolong the life of a depreciating asset that will continue to diminish in performance. And, as the asset gets older, its operation and maintenance requirements will grow.

Taking the system as a whole, structures have been deteriorating faster than we have been replacing or rehabilitating them. As things break, they have to be fixed. The result has been a

loss in the reliability of the system. For example, on the Ohio River navigation outages have increased more than 3 fold since 2000, going from approximately 25,000 hours to 80,000 hours.

Many of the locks on the nation's Inland Waterways Transportation System are 600 feet long. While this was the industry standard in the 1920's, today's 15- barge tows that traverse the system are 1,200 feet long. As a result, most tows must lock using a time-consuming process in which the barges are decoupled from the towboat and moved 6 or 9 at a time through the lock. Assuming the barge tow has no delay at the lock, this can take 1 to 2 hours, under optimal conditions. However, in relation to the Upper Mississippi River-Illinois Waterway system, the farther south a barge travels the more traffic it encounters, thereby increasing delays. For instance, lock delays at La Grange on the Illinois Waterway average more than 2 hours of delay, while Locks 22, 24, and 25 on the Upper Mississippi River average delays of 5 hours. Simply changing the configuration of the vessels is impractical and economically prohibitive since barge tows are built to maximize the total shipment throughout the entire movement, not just at a particular lock.

If the nation does not update and maintain the Inland Waterways Transportation System, the goods transported by barge will have to switch to other more expensive modes of transportation. When it becomes more expensive to produce and transport goods in the United States, production facilities and jobs move overseas.

Inland Waterways Trust Fund

The Inland Waterways Trust Fund was first authorized in the Inland Waterways Revenue Act of 1978 for the purpose of providing funds for the construction and rehabilitation of navigation projects. The 1978 Act created the Trust Fund by assessing a fuel tax on vessels that utilized the Inland Waterways Transportation System beginning in 1980 at a rate of \$0.04 per gallon and incrementally increased to the current level of \$0.20 per gallon in 1994.

However, it was not until passage of the Water Resources Development Act of 1986 that expenditures were authorized from the Inland Waterways Trust Fund. By then, the Trust Fund had grown to \$260.2 million. Trust Fund expenditures pay for half of a given construction or rehabilitation project with the other half coming from the General Fund in the Treasury, while operation and maintenance activities are paid for in total from the General Fund in the Treasury.

The Inland Waterways Trust Fund is an invested fund in interest-bearing obligations and the Trust Funds revenues are a combination of tax receipts and interest earnings. The Treasury Department is responsible for the quarterly collection and investment of these receipts while the United States Army Corps of Engineers is responsible for recommending the timing and amount of the expenditures during its preparation of the annual budget submission to Congress. Congress is ultimately responsible for appropriating funds from the Trust Fund and General Fund in support of construction and rehabilitation activities on the Inland Waterways Transportation System.

The balance in the Trust Fund steadily declined between 2003 (a year-end balance of \$412.6 million) and 2009 (a year-end balance of \$57.7 million) as Congress dedicated increased

amounts to modernize the Inland Waterways Transportation System. In fact, from 2000 to 2009, expenditures exceeded revenues. This resulted in a decline of the Trust Fund balance to the point that today, expenditures are limited to the amount of annual fuel tax revenue collected for that particular year. The increased costs and constrained Trust Fund have resulted in a backlog of authorized yet unconstructed projects.

The President's proposed FY2012 budget calls for using \$77.1 million from the Inland Waterway Trust Fund, resulting in an estimated balance of \$63 million at the end of FY 2012.

Challenges to Maintaining the Inland Waterways Transportation System

Challenges to maintaining the Inland Waterway Transportation System can be associated with both process and funding. In recent decades, it has become increasingly difficult to get projects through the congressional and Corps of Engineer process as well as increasing difficult to maintain a level of funding to keep up with repair and replacement needs.

Those Inland Waterways Transportation System projects authorized in the Water Resources Development Act of 1986 were completed within an average of 6 years. However, projects authorized since 1986 have on average taken 20 years to complete and cost more than twice the authorized amount.

As an example, the recently completed project at McAlpine Locks and Dam near Louisville, Kentucky, took 10 years to complete. An almost identical lock chamber located next to McAlpine took only three years to complete in 1961. This difference reveals the difficulty in developing accurate capital planning forecasts and demonstrates a multitude of issues surrounding the project delivery process.

More alarming is the Olmsted Locks and Dam project on the Ohio River between Illinois and Kentucky. As authorized in 1988, the \$775 million project was designed to replace two aging locks completed in 1929. While the project broke ground in 1992 and was expected to be completed no later than 2005, today the project remains incomplete and the cost estimates have been revised upwards to approximately \$2.124 billion and the expected completion date (barring additional factors or complications) is 2018.

Many factors contribute to this scenario at Olmsted. The cost escalation can be linked to factors such as design and scope changes, differing site conditions, reprogramming funds to other projects, and omissions, some factors which are within the control of the Corps of Engineers while others can be attributed to insufficient funding and factors outside of the purview of the Corps of Engineers.

These cost overruns have contributed greatly in the spending down of the Inland Waterways Trust Fund. While the economic benefits of this project outweigh the costs, frustration of the House of Representatives Committee on Transportation and Infrastructure and the Inland Waterway Users Board continues to mount.

This has caused ripple effects throughout the entire Inland Waterways Transportation System. Because it is so costly, until the project at Olmsted is complete, it is difficult to initiate, much less complete, other projects on the Inland Waterways Transportation System.

The Congress has been appropriating \$170 million per year on average for the Inland Waterway Transportation System. Compare this to the estimate that it will require \$3.8 billion to complete projects already under construction and there is another \$4.3 billion of authorized projects for which construction has not started. To completely modernize the system with new construction and rehabilitation of old structures would require an estimated \$18 billion. That is what would be required to fully realize the economic benefits of the Inland Waterways Transportation System. The system is falling apart faster than we are replacing. This condition is not sustainable

Inland Waterways Users Board Recapitalization Plan

Section 302 of the Water Resources Development Act of 1986 established the 11-member Inland Waterway Users Board intended to give commercial users an independent voice in investment decisions relating to the Inland Waterway System. Noting the complications surrounding the Olmsted Locks and Dam project and other projects authorized after 1986, the Inland Waterway Users Board delivered recommendations to the Secretary of Army and Congress on April 13, 2010. The "Inland Marine Transportation System (IMTS) Capital Projects Business Model" proposes major revisions to reform the funding and methods for carrying out projects on the Inland Waterways Transportation System.

The Users Board recognized that under current practice, Inland Waterways Transportation System projects that have already begun construction would require an estimated \$3.8 billion to complete. With average annual revenues of the Trust Fund between \$75 and \$85 million, these projects would not be complete until 2035 or 2040. There is also an additional \$4.3 billion of authorized work that has not yet begun construction. Total authorized and unauthorized activities could be as much as \$18 billion to address new construction and rehabilitation of existing structures. (\$12.1 billion in new construction, \$5.9 billion in rehabilitation.) Current investment levels are, on average, \$170 million annually.

The recommendations of the Inland Waterways Users Board call for a 20-year recapitalization or asset renewal program that would, among other items, increase the investment level on the Inland Waterways Transportation System to \$380 million annually. This increased investment would require that Congress enact an increase in the Inland Waterway fuel tax from the current \$0.20 cents per gallon to \$0.26 per gallon.

In addition, the recommendations include provisions requesting Congress change the cost sharing formula for some construction and rehabilitation projects that cost less than \$100 million. The Users Board suggests that all new construction or rehabilitation projects that cost less than \$100 million be paid for from the General Fund in the Treasury, and for all construction or rehabilitation projects that cost more than \$100 million be cost-shared 50%-50% from the Trust Fund and the General Fund.

Lastly, the Users Board recommends the establishment of a project-by-project cost-sharing cap to protect the Users Board and the industry it represents from unreasonable cost escalation and project delays. Cost increases above the proposed cap threshold would be 100% federally funded unless the increase was approved for cost-sharing by both the Users Board and the United States Army Corps of Engineers.

The Users Board also made numerous recommendations to the United States Army Corps of Engineers to address some changes in the planning processes in order to better streamline project delivery and reach project completions more quickly.

Summary

- The Inland Waterway Transportation System provides a cost effective, fuel efficient, and safe alternative to other modes of transportation.
- The locks and dams are old and not sized to the modern fleet of towboats.
- The locks and dams are deteriorating faster than they are being repaired and replaced.
- Scheduled and unscheduled outages of the system are rising.
- The time required moving new projects through the planning and construction process has expanded from a few years to a few decades.
- Cost overruns are frequent and large.
- The Inland Waterway Trust Fund, which pays for half of new construction and rehabilitation, is not collecting enough revenue to complete projects in a timely manner.
- The current paradigm for paying for lock and dam replacement is unsustainable for maintaining an inland waterway transportation system in the future.

Witnesses

The Honorable Jo Ellen Darcy, Assistant Secretary of the Army-Civil Works, United States
Department of the Army

Steve Little, Chairman, Inland Waterways Users Board

Mike Toohey, President, Waterways Council, Incorporated.

Dr. Larry G. Bray, Center for Transportation Research, University of Tennessee-Knoxville

Mr. Steve Ebke Chairman, Production & Stewardship Action Team, National Corn Growers
Association

Stephen Ellis, Vice President, Taxpayers for Common Sense

**THE ECONOMIC IMPORTANCE AND
FINANCIAL CHALLENGES OF
RECAPITALIZING THE NATION'S INLAND
WATERWAYS TRANSPORTATION SYSTEM**

WEDNESDAY, SEPTEMBER 21, 2011

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON WATER RESOURCES
AND ENVIRONMENT,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:06 a.m. in Room 2167, Rayburn House Office Building, Hon. Bob Gibbs (Chairman of the subcommittee) presiding.

Mr. GIBBS. Good morning. We will commence with the hearing here of the Water Resources and Environment Subcommittee of Transportation and Infrastructure. Welcome.

Today we are going to have a hearing on the economic importance and financial challenges of recapitalization of the Nation's inland waterways transportation system. Transportation savings are a key factor in economic growth. As fuel prices continue to escalate, waterway transportation becomes an even more viable alternative for shippers. But an inefficient transportation system will make U.S. products uncompetitive in world markets.

The inland water transportation system provides freight mobility that otherwise would be costly or even impossible to address. Some products are simply too large to move by any mode, other than water. Some products are too hazardous for other modes, and those modes cannot charge rates high enough to make it feasible to move the product.

One of our witnesses today, Dr. Larry Bray, will testify that completely diverting cargo from water to rail would require hundreds of thousands of additional rail cars, and an additional 2,500 locomotives. If the cargo that currently moves by waterway had to move by truck, it would require an additional 58 million truckloads moving on an already congested highway system, annually. Yet the Nation's infrastructure, especially its water resources infrastructure, is falling apart, faster than we can fix it.

After Hurricane Katrina, it became obvious that the warning signs were there all along, and that many experts had been telling us for years that conditions were ripe in the New Orleans area for disaster. Today we are getting a similar warning about the Nation's inland waterway system of transportation.

We have been investing too slowly for too long. Fifty-seven percent of our inland system is more than 50 years old, and 37 percent of the system is more than 70 years old. It is literally falling apart. Navigation outages along the system are increasing. For instance, the Ohio River outages have increased from 25,000 hours in 2000 to 80,000 hours today. This trend of increasing outages is expected to continue.

While it affects the reliability of the system, it also foretells the likelihood of a major physical failure in one of the structures. At the current rate of investment, the inner harbor navigation canal lock in New Orleans, the southernmost navigation feature on the system, is scheduled to begin reconstruction in 2029. This will mean a current lock will be well over 100 years old when it is scheduled to be replaced.

In addition, because of the age, the existing locks and dams are not sized for the modern tow of 15 barges. As a result, delays occur at some times of the year, as tow boats have to break up their loads and move them through locks in two or three separate passes. Efficiencies could be found at many locations by expanding existing locks to handle the larger tows.

To add to the problem, the Coast Guard inland water navigation program has also no plan to replace the inland and river buoy tender fleet. These cutters mark navigation channels along the inland waterways, and play a crucial role in keeping these waterways operating. Almost all have exceeded their service life, and many are over 60 years old. Yet no design or construction funding has been made available to replace these vessels, and none is proposed for the next 5 years.

Conditions are so bad in so many places, it may be impossible to avoid a major shut-down of a few months or a few years somewhere in the system. Finding alternative ways to move cargo would be expensive, if not impossible. And if transportation costs are to go up, competitiveness of American products in the world market goes down.

So addressing the infrastructure needs of the inland water system is not about economic benefit to a few barge companies, it is about keeping American farms and businesses competitive, and growing American jobs. Letting the inland water system decline further would be an economic disaster to add to the Nation's already significant fiscal problems.

Movement of goods is going to increase in the future, and we can expect more demands on our inland waterway transportation system. Having an inland water system that is a viable alternative will keep costs down among all modes of transport. If you take inland waterways out of the mix, in terms of transportation options, costs go up, and American products become less competitive in the global market place, and that means lost jobs. That is why I can say I am a fiscal conservative, and I support investing in America where those expenditures stoke the fires of our economic engines, and create jobs throughout our economy.

Sadly, other than the Inland Waterways Users Board, few realize the state of our infrastructure. And while I do not agree with all parts of their plan, at least the users board has delivered a recapitalization plan to the Nation that calls for reinvestment in the sys-

tem. For a tiny percentage of the \$1 trillion failed stimulus program of 2009, or the \$450 billion job program recently suggested by the administration, we could spend the \$8 billion necessary to recapitalize the inland water system. That is, to finish the projects under construction and begin to finish the slate of authorized projects.

I think we need to make investments in inland waterway infrastructure, and other investments that will multiply jobs throughout the economy. Many of the recent suggestions that come from the administration and elsewhere call for expenditures on projects that simply create short-term construction jobs with little or no economic benefit coming from the project being built.

I welcome our witnesses today to our hearing today, and look forward to hearing from each of you. At this time I will now yield to my ranking member, Mr. Bishop, for remarks that he may have.

Mr. BISHOP. Thank you very much, Mr. Chairman, and I thank you for holding another hearing to highlight the growing water infrastructure needs and challenges facing this Nation.

Earlier this summer, this subcommittee held a hearing on the adverse impacts that reduced Federal expenditures for maintenance dredging can have on our national and local economies on the businesses and industries that depend on the efficient movement of goods and services, and on jobs that are integrally linked to our ports and our small boat harbors.

I recall how, in hearing after hearing, this committee has reviewed the declining condition of our water transportation corridors, our Nation's network of levees and other flood-damage reduction projects, and our Nation's wastewater infrastructure. Countless witnesses have come before this subcommittee to tell us what we should already realize, that our water-related infrastructure is on the brink of failure, an event which can only result in adverse impacts to health, safety, prosperity, and quality of life, should one of these systems fail.

Today we will focus on another mode of our water-related infrastructure that is in serious need of repair, our Nation's inland waterway system. As noted by the Inland Waterways Users Board, the estimated cost of repairing and modernizing the assets of the inland system is approximately \$8 billion. Yet expenditures from the Inland Waterways Trust Fund, which was specifically established to pay half the cost of construction and most rehabilitation projects on the inland system have been declining over the past few years, to a point where there are insufficient revenues in the fund to cover the cost of ongoing projects.

Mr. Chairman, the evidence is clear that our Nation is facing an infrastructure crisis. However, rather than take this challenge head on, as we have traditionally done in a bipartisan manner, the running theme of the current majority is that Federal agencies and the American people should simply do more with less. When it comes to constructing, operating, and maintaining the critical navigation, flood damage reduction, power supply, and water supply programs that our Nation relies upon, the bottom line is that, with reduced funding, Federal agencies will be forced to do less with less.

At a time when this Nation is facing critical issues, including historic flooding in almost every region of the country, as well as trying to kick-start our sluggish economy, now is exactly the wrong time to withhold vital funding for the Nation's systems of water infrastructure projects. And yet this is exactly the path being pursued by the Republican majority in the House.

For example, in the first months of the 112th Congress, the Republican majority pushed to cut over \$500 million, or approximately 10 percent, in the current fiscal year from an already strained Corps budget. Included with this overall cut, H.R. 1 proposed to reduce the Corps' construction account by over 16.8 percent over the previous fiscal year's level, and to reduce funding for the Corps' work on the Mississippi River system by an unbelievable 30 percent.

Unfortunately, the new majority is not yet done with the Corps. The House-passed fiscal year 2012 funding bill for the Corps further reduces the level of funding for the Corps by 11.5 percent, when compared to fiscal year 2010 levels, including a remarkable cut of 20.5 percent to the Corps' construction account, and an additional 38.2 percent reduction for the Corps' work along the Mississippi River.

Contrast this with the recent jobs proposal of President Obama, which calls for an increase in investment for our Nation's infrastructure, including its wastewater and drinking water infrastructure, as well as commercial ports, levees, and projects on the inland waterway system.

So, as we listen to the testimony of industries that rely on the efficient movement of goods and services on our Nation's infrastructure networks, we must be mindful that these efficiencies can only come from a well-funded and adequately maintained infrastructure system. In other words, you get what you pay for.

We must also be mindful of the concerns identified by many regarding the financing prioritization, and sustainability of projects along the inland system. It seems to me that the current mechanisms are not working, as is evidenced by the fact that there are insufficient funds in the Inland Waterways Trust Fund to move projects along in a cost-effective manner. As a result, these projects take longer to construct, which often leads to a total cost of the project increasing.

However, I remain skeptical of the logic of shifting even greater portions of these costs on to the American taxpayer. To me, when paired with the Republican majority's push to further reduce the Corps budget, adding additional responsibility to the general fund can only further strain our ability to meet the growing water-related infrastructure needs of our communities.

For example, if the Corps' already constrained construction account had to take on several hundred million dollars in costs currently covered by the Inland Waterways Trust Fund, which communities will be told that funds are now no longer available to meet their needs, whether it be navigation, flood damage reduction, or environmental restoration?

Mr. Chairman, again I thank you for holding this hearing. I look forward to today's testimony. I yield back the balance of my time.

Mr. GIBBS. Mr. Duncan, you've got an opening statement?

Mr. DUNCAN. Well, thank you, Mr. Chairman. And I too want to thank you for calling this hearing. Part of the title of the hearing says the economic importance of our Nation's inland waterway transportation system. And it is unfortunate that most of our people do not know how vital and how important our inland waterway system is to the economic well-being of this Nation.

But I primarily want to welcome one of our key witnesses here today. I want to welcome Dr. Larry Bray. Dr. Bray is a professor at the University of Tennessee Center for Transportation Research. Prior to joining the University of Tennessee, he spent 30 years as an economist for the Tennessee Valley Authority. He received the commander's award for public service from the Corps of Engineers, one of the highest public service awards that a private citizen can receive in this country. And he also served as the chairman of the inland waterway transportation committee of the Transportation Research Board. So he certainly is an expert in this area.

The statistics vary a little bit from year to year, but for this hearing the staff—I will just mention three or four things the staff has given me. One 15-barge tow on a river can carry as much cargo as 216 rail cars or 1,050 large trucks. A gallon of fuel can move 1 ton of cargo 155 miles by truck, 413 miles by train, 576 miles by barge. Waterways allow for \$9.2 billion in annual transportation savings.

But taking the system as a whole, these structures have been deteriorating faster than we have been replacing or rehabilitating them. And because of this, projects since 1986 have taken an average of 20 years to complete, far longer than they ever should have, and far longer than almost any other developed nation has taken. And that doubles and triples the cost of these projects. And because of that, we have seen a decline in the trust fund, the Inland Waterways Trust Fund balance, from \$412 million in 2003 to only \$57 million now. A really rapid decline.

And I and many members of this committee are concerned about the fact that this administration has not appointed anyone. They have let the terms expire of the entire Inland Waterways Users Board, a very important board, and we need to see that board reappointed.

I have told this story in here a couple of times before, but it is worth retelling again. Many years ago—and I had the privilege of—you know, we have a 6-year limit on chairmanships, but I had the privilege of chairing this subcommittee for 6 years, and I learned a lot about it. But even before I chaired it, I received a call from a businessman in Knoxville one day who was concerned about the Chickamauga Lock. Dr. Bray will mention the Chickamauga Lock and Dam in his testimony.

But he wanted to have lunch with me. And so that call came on a Thursday. I said, "Well, I'm flying back to Washington on a plane at 1:50 on Monday". I don't know why I remember the time, but I do. But I said, "I will meet you at a restaurant near the airport for lunch." And I thought it was going to be this man, I wouldn't have been surprised if he brought one or two others with him. I walked into that restaurant. There was almost 100 people at that restaurant. And I didn't get to eat any lunch, because, one after another—they were from all these businesses in east Tennessee.

And the Chickamauga Lock is not in my district. But it is—it affects all that transportation that comes up the river from the Chattanooga area and other—many other places. And the Tennessee River, of course, runs right through the center of my home town in Knoxville. But, boy, that meeting really brought home to me the importance of these inland waterway locks and dams.

And we've got to do a lot of work. And so I appreciate your calling this hearing, and I appreciate your inviting Dr. Bray here to testify. Thank you very much.

Mr. GIBBS. I recognize Mr. Rahall, the ranking member of the full T&I committee.

Mr. RAHALL. Thank you, Mr. Chairman. And thank you for having today's hearings, which highlights the importance of robust investment in our Nation's infrastructure to the health and sustainability of our economy and our overall quality of life.

I share the concerns expressed by several of the witnesses here this morning on the need to renew the Federal commitment to modernize our Nation's inland waterway system. The inland waterway system is critical for the efficient and economically viable movement of bulk commodities such as coal mined in my home State of West Virginia to the market.

For example, in 2008, 74 million tons of bulk commodities such as coal, petroleum, aggregates, and chemicals were moved through the State of West Virginia, the majority of which was shipped along its river systems. Of this amount, over 57 million tons of coal moved along the river system in 2008, with an estimated value of over \$2.1 billion.

Unscheduled delays and inefficiencies in moving cargo along the inland system only serve to increase the cost of goods and services that either move on the inland system, or increase the cost to industry and companies that rely on these goods and services. Unfortunately, these increased costs are often passed along to American families at the grocery store, or in other means. In my view, wise investments in ensuring the efficiency and reliability of our inland system can only benefit the bottom line of many American families.

Similarly, prudent investments in our Nation's infrastructure in general make these wise economic sense. The Nation's system of roads, bridges, and water-related infrastructure, including the inland waterway system, are needs that even Americans of vastly different political leanings agree deserve greater Federal investment, not less. After all, the jobs created by such investment are not Republican jobs or Democratic jobs. They are American jobs, and benefit the Nation as a whole.

Over the past year, I have often expressed concern about the impacts of the proposed cuts to vital transportation and infrastructure spending programs advocated by the Republican leadership. In my view, these cuts are penny wise and pound foolish, in terms of impacts to American families and our overall quality of life.

This is true as well for the cuts proposed by our Republican colleagues to the budget of the U.S. Army Corps of Engineers, which has weathered a drastic cut of almost 20 percent in the current fiscal year, and is expected to reduce even further for the upcoming fiscal year. These dramatic cuts to the Nation's premier water resources agency will have consequences, forcing the Corps to walk

away from or delay the construction or maintenance of vital navigation, flood control, and environmental restoration projects that benefit the Nation, as a whole.

On the inland waterway system, these cuts will result in fewer critical construction and rehab projects being funded at their capability, drawing out construction schedules and inevitably increasing the total cost of project delivery. This is unsustainable and, in my view, the wrong way to go. I look forward to continued debate on the issue here today.

In conclusion, I take this opportunity to especially welcome Mr. Michael Toohey, the president and CEO of the Waterways Council here this morning. Mike has been in my office a number of times, sharing his expertise and that of his council on these and other vitally important infrastructure issues. And I look forward to the testimony of the rest of the witnesses, as well. Thank you.

Mr. GIBBS. Representative Napolitano, you have an opening statement?

Mrs. NAPOLITANO. Yes, Mr. Chair, I do. And thank you very much for holding this hearing. I do support the jobs, and I support our country getting on a sound financial track. I am also a firm believer that when someone makes an investment in a program or project, they should have a say in how the funds for the project are spent.

The inland waterways program historically has supported commerce and development in our country. From the Columbia River in the West to the Mississippi and the Missouri Rivers in the Midwest to the Atlantic Intracoastal Waterway in the East, the waterway system has supported moving commodities.

Today we find ourselves in a different financial and political environment. First off, financially we cannot afford subsidies in excess of 90 percent for the inland waterways program. Secondly, we all want more transparency in how our dollars are being spent, and who is benefitting from the taxpayer support. Thirdly, we have an infrastructure system that is aging and falling apart. Replacement costs for locks, dams, levees, and other river channel features have escalated to a level where user fees cannot meet the replacement cost. And lastly, the logic of maintaining a subsidized waterway for a small group of users does not make economic or logic sense.

We must discuss how to maintain our inland waterway system, and how to identify and prioritize those projects that can be supported, and those who do not warrant continued investment. For those that are not economically justified, the user industry cannot or will not support. We need to help them transition to other forms of meeting the transportation needs.

In 1986 the Water Resources Development Act established the Inland Waterways Users Board, a Federal advisory committee to provide the commercial users a voice in the investment decision-making of how their fuel tax cost share was applied. The users board made the argument, "User pay, user say." The board, in its present form, is composed exclusively of members from the barge and commodity industry, and does not include—and does include input from other groups.

Today we will hear how the waterway users have to—the users want to have the taxpayer pick up more of the cost associated with

the construction, maintenance, and operation of the inland waterways system. And, interestingly, they also want more say on how the money is spent and prioritized.

Something seems wrong in this picture. If we indeed are to support their proposal, then it seems logical under the User Pay User Say approach that the current composition of the users board has outlived its purpose, and should either be eliminated or the participation on the board should be significantly shifted to include other user groups in the decisionmaking process, groups like citizen taxpayers, conservationists—oh, excuse me, tribes, recreations, et cetera.

If you're asking the taxpayer to pick up more of the cost, you have to be willing to allow the taxpayer to be more involved in the decisions on how the money—the taxpayer money—is to be spent. I am for balance and fair representation, it is just on whose back the balancing takes place that I get concerned about. And I really do want some fairness here.

I yield back the balance of my time.

Mr. GIBBS. Thank you. Representative Johnson, do you have an opening statement?

Ms. JOHNSON. Thank you very much. I would like to thank you, Chairman Gibbs, and Ranking Member Bishop, for holding this hearing today regarding the economic importance of financial challenges of recapitalizing our Nation's inland waterways transportation system.

Considering that the Nation's inland waterways transportation system is comprised of 25,000 miles of navigable water with nearly half of that managed by the Corps of Engineers, and the nearly 630 tons of annual cargo is moved on the fuel tax inland waterway system, it is important that Congress and our committee review what improvements can be made and what challenges lie ahead.

Like most of the United States transportation infrastructure, the navigational infrastructure of inland waterways system is aging, and in need of modernization. Today 54 percent of the inland waterway system structures are more than 54 years old, 36 percent are over 70 years old. In addition to the outdated structures of harbors, locks, and dams, there are only—there are also the operational challenges of maintaining channel depths, flood control, water management, and water supply that have fallen woefully behind the times. And my area is a good example.

The Inland Waterways Trust Fund which supports these structures and operations is funded by 20¢ per gallon of fuel tax on commercial operators, and is in serious need of modernization.

I appreciate all that are here today who are committed to working toward that goal. The future of our inland waterway transportation system is too important for our economic future to be sunk by partisanship. As former chair of this subcommittee, I am hopeful that we can approach this issue in a bipartisan and responsible manner.

Thank you, and I yield back.

Mr. GIBBS. And I think we have one more opening statement. Mr. Landry, do you have an opening statement?

Mr. LANDRY. Thank you, Mr. Chairman, Ranking Member Bishop, for calling this hearing today.

Navigation, be it inland, coastwise, or international, is very important to me. One of my first acts as a congressman was to send a Dear Colleague letter to my new colleagues, alerting them to a Wall Street Journal article highlighting the need to increase investment in our inland waterway system.

My district is uniquely situated at a crossroads between our inland navigational system and our international customers. Put another way, waterborne cargo rarely originates or terminates in my district. However, more than 500 million tons of cargo is moved on the Mississippi River and the Gulf Coast Intracoastal Waterway, which also follows through my district, and adds millions more to the—million more tons to this total.

As such, I am greatly concerned with moving our Nation's inland waterways and our ocean ports forward together, because the system doesn't work if we concentrate only on the dredging needs of our ports, or only on the infrastructure needs of our inland navigational system. I realize that this system is broken. The harbor maintenance trust fund has significant problems with this operation, and our inland waterways are constrained by infrastructure designed for Mark Twain steamboats, rather than the modern vessels that operate it today.

But to address these problems, we need to have a willing partner. When the Corps of Engineers was first created, it was created with two important tasks: navigation and flood control. We need to get back to those priorities.

To address—Assistant Secretary Darcy says in her written testimony that the Army's commitment to inland waterways navigation is evident by the fact that, under the stimulus bill, the Corps allocated \$420 million to ongoing inland waterway capital projects.

But I find it interesting that the administration's fiscal year 2012 budget only allocates 12 percent of the construction dollars to navigation projects as another—you know, when you compare the 12 percent in the fiscal year 2012 budget to her comments, it seems as though we could allocate more money towards navigation and less to environmental projects. Again, it is a balance between what our priorities are.

I would suggest that we need an entire re-evaluation of the Corps' priorities, with more emphasis on the projects which grow our economy, increase our job creation, and help our constituents' products compete on an international market.

I look forward to your testimony to see how we can move in such a direction, keeping in mind that the way we allocate our resources in the Federal Government to make the American people more productive and to create jobs is by dividing—is by deciding which are our priorities, which are our needs, and which are our wants, and make sure that we fund our needs, and then if we have anything left over, we can fund our wants.

Thank you, Mr. Chairman.

Mr. GIBBS. I thank you. At this time I ask unanimous consent that the following written statement be included in the record from the American Society of Civil Engineers.

[No response.]

Mr. GIBBS. So ordered.

[The information follows:]



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**STATEMENT OF
THE AMERICAN SOCIETY OF CIVIL ENGINEERS
BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
U.S. HOUSE OF REPRESENTATIVES
ON THE
ECONOMIC IMPORTANCE AND FINANCIAL CHALLENGES
OF RECAPITALIZING
THE NATION'S INLAND WATERWAYS TRANSPORTATION SYSTEM
SEPTEMBER 21, 2011**

Mr. Chairman and Members of the Subcommittee:

The American Society of Civil Engineers (ASCE) is pleased to provide this statement for the record on the challenges facing Congress as it seeks to rebuild the nation's inland waterways transportation system.

A. Background

Because of their ability to move large amounts of cargo, the nation's inland waterways are a strategic economic and military resource. A recent analysis by the U.S. Army War College concluded that "the strategic contributions of these inland waterways are not well understood. The lack of adequate understanding impacts decisions contributing to efficient management, adequate funding, and effective integration with other modes of transportation at the national level. Recommendations demonstrate that leveraging the strategic value of U.S. inland waterways will contribute to building an effective and reliable national transportation network for the 21st century."

The Corps of Engineers Civil Works program suffers from chronic under funding for essential infrastructure systems. If allowed to continue, this trend likely will result in ever greater system failures and the consequent expenditure of tens of billions of dollars to rebuild what could have been built more economically in the first instance. In the face of the Corps' aging infrastructure needs, the president's budget for the Civil Works Program in FY 2012 reduces federal investments in essential national civil works systems. Moreover, the negative budgeting trend is not likely to improve in future years. The Corps estimates that its budget proposals will continue to decline through FY 2015, with a low estimate of \$4.5 billion for FY 2013. The Corps expects that inflation will reduce actual

spending on key infrastructure programs by a further \$3 billion over the next five years. ASCE believes that these levels of spending are inadequate to meet the nation's security, economic and environmental demands in the 21st century.

The administration budget proposal for the U.S. Army Corps of Engineers for Fiscal Year 2012 budget would provide \$4.6 billion for federal investments in all Corps infrastructure, including the inland waterways. The president's budget for FY 2012 for these programs is inadequate and must be increased. Congress must expand funding for FY 2012 to at least \$5 billion, an amount that is still far below the demonstrated need on an annual basis. Among other things, the administration proposal would fund the operation and maintenance of 51 commercial navigation projects on the inland waterways, according to USACE statements.

The administration's funding for Civil Works in the 2012 budget is about 15 percent below the enacted amount of \$5.445 billion in FY 2010. It is about six percent below the FY 2011(unenacted) budget level. These budget cuts must be reversed to ensure safe infrastructure and a sound economy.

B. Inland Waterways

The Corps maintains approximately 12,000 miles of inland waterways. Inland and intracoastal waterways directly serve 38 states as well as the states on the Atlantic seaboard, the Gulf Coast, and the Pacific Northwest. Shippers and consumers in these states depend on the inland waterways to move approximately 630 million tons of cargo valued at more than \$73 billion annually.¹

States on the Gulf Coast and throughout the Midwest and Ohio Valley especially depend on the inland and intracoastal waterways. Texas and Louisiana each ship more than \$10 billion worth of cargo annually, while Illinois, Pennsylvania, West Virginia, Kentucky, Mississippi, Alabama, and Washington State each ship between \$2 billion and \$10 billion annually. Another eight states ship at least \$1 billion annually.

This system provides an average transportation savings of \$10.67 per ton over the cost of shipping by alternative modes. This translates into more than \$7 billion annually in transportation savings to the U.S. economy. Future investment must focus on life-cycle maintenance, system interdependencies, redundancy, security, and recovery from natural and man-made hazards.

¹ The Atlantic Intracoastal Waterway (AIWW) is a designated IWTF project. The commercial users on the AIWW have been paying into the fund since its inception while receiving very little in return for the AIWW system. As there are no new construction activities or major rehabilitation projects planned for the AIWW, there is little likelihood any of the fees collected on the Intracoastal Waterway will be used to improve or maintain the AIWW. This inequity for the AIWW needs to be addressed.

Forty-one states, including all states east of the Mississippi River and 16 state capitals, are served by commercially navigable waterways. The U.S. inland waterway system consists of 12,000 miles of navigable waterways in four systems—the Mississippi River, the Ohio River Basin, the Gulf Intercoastal Waterway, and the Pacific Coast systems—that connect with most states in the U.S. The system comprises 257 locks, which raise and lower river traffic between stretches of water of different levels.

Forty-seven percent of all locks maintained by the U.S. Army Corps of Engineers were classified as functionally obsolete in 2006. Assuming that no new locks are built within the next 20 years, by 2020, another 93 existing locks will be obsolete—rendering more than 8 out of every 10 locks now in service outdated. Most locks now are anywhere from 50 to 70 years old.

The current system of inland waterways lacks resilience. Waterway usage is increasing, but facilities are aging and many are well past their design life of 50 years. Recovery from any event of significance would be negatively impacted by the age and deteriorating condition of the system, posing a direct threat to the American economy

The construction and major rehabilitation of inland waterways transportation projects is funded 50 percent from the Inland Waterways Trust Fund (IWTF), with the balance from general revenues. This trust fund receives dedicated revenues from a tax on inland waterways fuel. The tax has been 20 cents a gallon since January 1, 1995. Operation and maintenance of the inland waterways system are entirely funded by general federal revenues.

In recent years, the balance in the Trust Fund has been declining. The Treasury Department reported in November 2010 that the IWTF had a balance of only \$5.5 million as of September 30, 2010. Department of the Treasury, Audit Report 6 (2010), <http://www.treasury.gov/about/organizational-structure/ig/Documents/oig10017.pdf>. The balance on September 30, 1999, was \$288 million. Department of the Treasury, Audit Report D-1 (2000).

According to the Inland Waterways Users Board (IWUB), a consortium of waterways users created by Congress, project overruns and delayed construction schedules are the major reasons for the Trust Fund's declining balances.

Enormous project cost overruns and delays in project schedules have greatly strained the Inland Waterways Trust Fund balance. Project completion delays result in part from a [f]ederal budgeting and appropriations model that provides funding in annual and often-insufficient increments that are frequently further complicated by one or more continuing resolutions that delay budget certainty rather than a more reliable multiyear funding mechanism that would provide the certainty needed to more efficiently contract and build these capital projects.

IWUB, 24th Annual Report 1 (October 2010).

In April 2010, the IWUB issued a proposed investment strategy for the inland waterways system that would increase the 20-cent diesel fuel tax to 26 cents or 29 cents. The plan also recommended that Congress retain the 50 percent federal-local cost share for major projects—those costing more than \$100 million—and require the federal government to pay the full cost of all projects costing less than \$100 million. The plan would provide an estimated \$7.6 billion in new revenues for the IWTF over 20 years.

C. Reversing the Disinvestment Trend

ASCE endorses the IWUB's recommendations in the Inland Marine Transportation System (IMTS) Capital Investment Strategy Team announced in 2010. The tax rate for the trust fund has been 20 cents per gallon since January 1, 1995. We believe that an increase in the waterways user fee is long overdue, and we concur in the recommendation that the current fee be increased between six and nine cents a gallon.

ASCE's support for the IWUB plan, however, is contingent on two important considerations.

- Any increase in the Inland Waterways User fee also should include a provision to index that fee to the consumer price index (CPI) and be adjusted every two years.
- Any diesel fuel tax revenues received by the IWTF should be "firewalled" to establish discretionary spending limits in the same manner used for Highway Trust Fund and the Aviation Trust Fund to reserve the IWTF revenues exclusively for the reconstruction of the system's aging infrastructure.

We come to these conclusions because it is not clear how the Corps will continue to pay for essential infrastructure systems with greatly reduced budgets adopted in the Budget Control Act of 2011 well into the future. It is obvious that drastic budget cuts or the complete elimination of funding mean that little or nothing will be done to maintain these vital programs.

ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents 140,000 civil engineers individually in private practice, government, industry, and academia who are dedicated to the advancement of the science and profession of civil engineering. ASCE is a non-profit educational and professional society organized under Part 1.501(c) (3) of the Internal Revenue Code.

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Mr. GIBBS. At this time I want to introduce our witnesses. We've got a distinguished panel, I'm looking forward to hearing from all of you.

We have Assistant Secretary of the Army, Ms. Jo-Ellen Darcy. We also have Mr. Stephen Little, former chairman of the Inland Waterways Users Board; Mike Toohey, president and CEO of Waterways Council; Dr. Larry Bray, Center of Transportation Research, University of Tennessee at Knoxville; Mr. Steve Ebke, chairman of the Production and Stewardship Action Team of the National Corn Growers Association; and Mr. Steve Ellis, vice president, Taxpayers for Common Sense.

At this time, Secretary Darcy, the floor is yours. Welcome.

TESTIMONY OF HON. JO-ELLEN DARCY, ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS), UNITED STATES DEPARTMENT OF THE ARMY; STEPHEN D. LITTLE, FORMER CHAIRMAN, INLAND WATERWAYS USERS BOARD; LARRY G. BRAY, PH.D., RESEARCH PROFESSOR AND FACULTY MEMBER, CENTER FOR TRANSPORTATION RESEARCH, UNIVERSITY OF TENNESSEE—KNOXVILLE; MICHAEL J. TOOHEY, PRESIDENT AND CEO, WATERWAYS COUNCIL, INC.; STEVE EBKE, CHAIRMAN, PRODUCTION AND STEWARDSHIP ACTION TEAM, NATIONAL CORN GROWERS ASSOCIATION; AND STEVE ELLIS, VICE PRESIDENT, TAXPAYERS FOR COMMON SENSE

Ms. DARCY. Thank you, Mr. Chairman and distinguished members of the subcommittee. I thank you for the opportunity to testify on the economic importance and the financial challenges of recapitalizing the Nation's inland waterways.

The Army Corps of Engineers is committed to facilitating commercial navigation by providing support for safe, reliable, highly cost effective and environmentally sustainable inland waterborne transportation systems. To this end, the Corps constructs and rehabilitates the locks, dams, channels, and other project features that enable vessels to transport commercial cargo along about 12,000 miles of inland waterways, including 238 lock chambers and 192 sites.

The Corps also operates and maintains these 12,000 miles of developed waterways using methods such as maintenance dredging of navigation channels and some harbors, and regulating water levels in some cases.

Inland navigation contributes to our Nation's economy, and is a factor in some State and local government economic development and job creation efforts. Inland waterways directly serve 38 States in the Nation's heartland, the Atlantic seaboard, the Gulf Coast, and the Pacific Northwest. Shippers in these States use the inland waterways to move more than 600 million tons of cargo annually. Some of the inland waterways, such as the Mississippi and Ohio rivers and the Illinois Waterway, support high levels of commercial traffic.

In accordance with the Water Resources Development Act of 1986, capital investment on 27 fuel-taxed waterways is financed 50 percent from the General Fund of the Treasury and 50 percent

from revenues paid by the inland waterways users into the Inland Waterways Trust Fund.

A balance of funding built up in the Inland Waterways Trust Fund in the years after its authorization in 1978. However, due to significant capital investment in the inland waterways in recent years, reaching a high of \$175 million in outlays from the Inland Waterways Trust Fund in fiscal year 2006 and \$171 million in fiscal year 2008, coupled with declining fuel tax receipts, the balance in the Inland Waterways Trust Fund was at risk of being depleted by fiscal year 2009.

Generally, since fiscal year 2010, construction and rehabilitation work has been constrained by the level of anticipated incoming fuel tax revenues of approximately \$75 million to \$85 million annually. As these revenues fund the user-financed 50 percent share of capital costs, this has limited the total annual construction program for cost-shared projects to \$150 million to \$170 million a year.

A notable exception to the 50–50 cost sharing was provided by Congress under the American Recovery and Reinvestment Act of 2009, whereby there was no Inland Waterways Trust Fund matching requirement. The Army's commitment to inland waterways navigation is evidenced by the fact that under this ARRA bill, despite the lack of cost sharing, the Army allocated \$420.5 million to ongoing inland waterways capital projects.

In addition to construction, the Army spends almost \$600 million a year on maintaining the inland waterways infrastructure. Under the ARRA bill, the Army allocated an additional \$394 million to operation and maintenance of inland waterway projects.

The President's recent plan for economic growth and deficit reduction, which he sent to the Congress earlier this week shows how we can reduce the deficit, pay down our debt, and pay for the American Jobs Act in the process. The plan includes a proposal for a new user financing structure for the inland waterways to supplement the existing diesel fuel tax. A new user fee would generate about \$1.1 billion of additional revenue into the Inland Waterways Trust Fund over the next 10 years to supplement about \$1 billion that we anticipate from the existing fuel tax. The additional revenue would enable a more robust level of funding for safe, reliable, highly cost effective and environmentally sustainable waterways, and contribute to deficit reduction and economic growth.

I expect the administration to submit the specifics of this legislative proposal to the Congress very shortly. The administration initiated discussions with the inland navigation stakeholders and will continue the dialogue with them on this very important matter. I hope that the submission to the Congress of a specific proposal will facilitate these discussions by identifying areas of common ground and workable solutions on a path forward to address the revenue shortfall.

The Army is committed to improving its project planning, design, construction, and operation and maintenance processes in order to more efficiently use available funds to achieve inland waterways navigation benefits. As part of this effort, the Army has initiated discussions with the Department of Transportation to coordinate infrastructure investment planning between the two agencies.

The administration plans to work with Congress and stakeholders to explore ways to provide a framework across all of the Civil Works mission areas for decisions on the recapitalization of aging Corps infrastructure, which could include modification of Corps operations, or deauthorization of projects, consistent with the modern-day water resources principles, and today's, as well as tomorrow's water resources priorities and challenges.

For example, under these principles, which were spelled out in the President's fiscal year 2012 budget, direct beneficiaries would be asked to pay a significant share of the costs to extend, expand, rehabilitate, or replace projects, as they would for a new project, commensurate with the benefits that they receive. Options such as direct financing will be considered as part of this effort, where appropriate, and in accordance with the Federal Government's budgetary standards for such arrangements.

In summary, the administration will work with Congress and stakeholders to revise the laws that govern the Inland Waterways Trust Fund to ensure that the revenue paid by commercial navigation users on the inland waterways to meet their share of the cost of fund-financed activities is sufficient to allow needed inland waterways capital investment to go forward.

Mr. Chairman and members of the subcommittee, I look forward to working with this subcommittee to achieve that objective. Thank you.

Mr. GIBBS. Thank you.

Mr. Little, the floor is yours. Welcome.

Mr. LITTLE. Thank you, Chairman Gibbs and Ranking Minority Member Bishop. I appreciate the invitation to testify today, and I also appreciate the subcommittee holding this hearing. I am Stephen Little, president and CEO of Crouse Corporation. I also have the distinct honor and privilege of having been the most recent chairman of the Inland Waterways Users Board.

The users board is a Federal advisory committee established by Congress in the Water Resources Development Act of 1986, one of this committee's many significant legislative achievements. Congress created the users board to give commercial users a strong voice in the investment decisions that those users are supporting with their diesel fuel tax payments. At full strength, the users board is comprised of 11 voting members who are appointed to represent the various regions of the country, as well as a spectrum of commercial users and shippers.

I am pleased to appear before this subcommittee this morning to testify in strong support of the recommendations developed by the Inland Marine Transportation Systems Capital Investment Strategy Team, or, as I will refer to it, the CIS Team, a 50-member Corps and industry team on which I was a participating team member. Those recommendations have been approved unanimously by the users board, and are supported by more than 200 other associations and companies throughout the Nation.

The CIS Team produced a comprehensive, consensus-based, joint industry/Corps set of proposals to address the capital investment needs that need to be made over the next 20 years in order to preserve and enhance the performance of our Nation's inland waterways transportation system.

In summary, those recommendations present a proposed plan to identify ways to improve the Corps' project delivery system, implement a capital investment strategy that balances reliability and affordability, prioritize specific capital investments needed over the next 20 years, and also defines revenue and cost-sharing approaches that can be met with reasonable certainty and efficiency.

The current business model for modernizing the Nation's locks and dams is seriously broken, and must be reformed. As a Nation, we seem to have lost the ability we once had to plan and construct individual inland waterways capital projects in a timely fashion. In my prepared statement that will appear in the record, I contain many examples of this failed system, most notably the Olmsted Lock and Dam.

We have a project funding and delivery system that is terribly inefficient, resulting in enormous waste of taxpayers' dollars. In an effort to fix this broken business model, for about a year-and-a-half, roughly 50 key Corps of Engineers and industry representatives worked diligently to develop a comprehensive solution to the challenges facing our waterways infrastructure, a solution that improves the project delivery system, that dimensions the most critical physical needs of the system, figures out what it will cost to address those needs, and how to pay for it.

Representing the Corps side of that team were senior leaders and technical experts from virtually every level of the Corps hierarchy. This effort required an enormous commitment from everyone involved, Corps and industry. But it was a most important endeavor, and a completely worthwhile commitment. At the end of the day, the CIS Team was able to meet the challenge it was given to develop the consensus recommendations I am now honored to testify in support of today.

The CIS Team's plan envisions a \$7.6 billion/20-year inland waterway capital investment program. The program anticipates an average annual investment level of \$380 million.

Mr. Chairman, I see that my time is nearing an end, so I will conclude my statement by simply pointing out that the CIS Team concludes its report with these words: "While unlikely that any set of recommended improvements could completely eliminate cost increases and scheduled delays, these recommended improvements, in combination with the development of the capital investment strategy, with the underlying premise that the funding will be provided in an efficient manner, will achieve the goal of an improved capital projects business model."

I believe that to be a true statement, and I urge the committee to implement this full inland waterways modernization plan at the first opportunity. Thank you.

Mr. GIBBS. Thank you.

Dr. Bray, welcome, and the floor is yours.

Mr. BRAY. Thank you. I too would like to thank the subcommittee for inviting me to speak here today. It is quite an honor for me to do this. Much of what I intended to say has already been covered, so I don't want to cover old ground. But I want to make three basic points.

The navigation system is a valuable component of the national transportation system. It has been mentioned you have about 589

million tons on the inland system, 8.6 percent of the total tonnage shipped in the Nation is by barge, 11 percent is measured by ton-miles. And one number I haven't heard is the value of barge cargo can be conservatively estimated at about \$124 billion.

Not only do you have these tons, but even on the tributaries, where you don't have a lot of traffic, you have the ability to move overweight, oversized commodities that probably could move on the overland system—maybe not—but they can be moved cheaply on the river system. You have shipments to utilities and environmental projects. Even down in north Alabama you have the Boeing common booster core rockets that locate inland to stay away from the effects of hurricanes on those big buildings and expensive equipment.

I want to say secondly that the system is old, and funding for maintenance and modernization has not been adequate. This point has already been made, but I want to give a couple of examples. Lock and Dam 18 on the Mississippi River has aggregate silica reaction which causes the concrete to spall. The dam is in such bad shape the rail tracks and hand rails are warping. The personnel platforms have been relocated from the side of the dam, for the fear that they will detach from the dam, and spill the workers into the river. It is that bad.

And at Chickamauga Lock, Representative Duncan mentioned the problem with the lock is aggregate alkali reaction, and TVA engineers, when I was there, projected a finite life. It will eventually need to be closed. This will probably happen before there is any further large work done. So you're going to put the people who rely on the river in competition with each other. How should the river be operated without navigation? It is unprecedented.

And lastly, I want to talk a little bit about the beneficiaries of the system of navigation locks and dams, which this problem at Chickamauga will probably manifest itself. Representative Duncan said most people don't know that they—what benefits they received from the navigation channel, and that is what we found at TVA when we were doing surveys in early 2000. I'm just going to go over just a few of these—about 2 minutes left.

Shipper savings. Shippers can ship cheaper by barge. On the Ohio River system, we estimated that to be in the neighborhood of \$3 billion a year. Nationally, that is probably \$7 billion a year. Now, when you ship cheaper, you can increase employment. On the Ohio River system we found the present value was \$497 billion in sales, and 80,000 annual jobs on the Ohio River system you can attribute directly to navigation. This yields an annual impact of about \$20.5 billion in sales. The service area of these utilities encompasses about 829 counties. All of these people potentially benefit from shipper savings to the utilities that ship coal on the Ohio River and its system.

Cooling power plants. If all of the power plants had to convert to cooling towers, it would cost about \$22 billion over 50 years. Of course you have hydropower benefits and one thing that people don't realize: property value benefits. On one reservoir on the Tennessee River alone, \$1.12 billion—property values, that is about 34 percent of the value of the property. You also have congestion and

safety impacts. They've been mentioned. And, of course, there are additional large benefits due to recreation.

I am out of time. I thank you for the opportunity to speak here today.

Mr. GIBBS. Thank you.

Mr. Toohey, welcome, and the floor is yours.

Mr. TOOHEY. Thank you, Mr. Chairman and Ranking Member Bishop. It is an honor to be here today. Mr. Chairman, I am Mike Toohey, the president and CEO of the Waterways Council, the Nation's public policy organization advocating a modern and well-maintained system of ports and inland waterways. Our membership consists of over 250 waterway carriers, shippers, port authorities, shipping associations, and waterway groups from all regions of the country.

The inland waterway system is one of this country's greatest assets. The waterways have been recognized as an area of fundamental Federal responsibility since the earliest days of our United States.

For over 200 years, our river system has facilitated the reliable and environmentally friendly transportation of the building blocks of our economy. A vibrant economy funds our national defense, our national security, our social benefits, our place in the world. And with the underpinning that the foundation of transportation provides, we enjoy a tremendous quality of life because of it. And thank you for this committee's recognition of that value.

Congressman Duncan and others have testified to the efficiency of the inland waterway system. It is the most efficient fuel-efficient system in the transportation modes. It is also the most environmentally friendly, because it has the fewest emissions of carbon dioxide.

Our inland waterway system is 12,000 miles and it impacts 38 States, thus the need for a Federal system. Because without it, we would not have the interconnectivity to get our grains to the export market, our coal to the export market, our petroleum to the domestic market, and our construction materials to our building markets.

Despite all these advantages, our inland waterway system infrastructure is suffering, and in need of immediate modernization. As many have noted—thank you, Congresswoman Johnson—we have many aged facilities that are in critical condition. And today we could plant a forest and yield—realize the yielding of that timber before we could get a lock and dam modernized in this country. That is ridiculous.

So, to fully understand this crisis, let me talk 1 minute about how this system is financed. The inland waterway system—this committee, in 1986, established or modified the established waterway trust fund to support a more viable, energetic program. They authorized seven new lock and dam projects, and doubled the fuel tax on the inland waterway system user—commercial users. Not on all the beneficiaries, but on the commercial users of the system.

And that tax now generates between \$70 million and \$90 million a year. That is matched by a 50–50 contribution from the Federal Government, which recognizes some of the national defense, municipal water supply, flood damage prevention, electrical generation

from hydropower, and other beneficiaries that Dr. Bray has identified.

As a result of that, 50 percent of the cost of construction are paid by the users, the commercial users, but not all the beneficiaries, and 50 percent by the Federal Government, recognizing that the general fund contribution is the mechanism to recognize the other beneficiaries' contribution to the construction of these facilities, and the maintenance of these facilities.

Now, the most glaring example of the deficiencies of the current system is the Olmsted Lock and Dam project on the Ohio River, originally authorized in 1988 at \$775 million, located on the Ohio River, as I stated. It replaces two aged locks, one of which was constructed with a 15-year expectation of life. It is now 80 years old.

That project has escalated in cost to \$2.1 billion, \$1.3 billion in sunk costs, to build the two 1,200-foot locks, which are in place. And now the Corps is placing the dam. We have recently been notified of a significant change in the project cost. We don't know what that is. We are informed that we may know that by December.

But a lot of our membership is vitally concerned about this cost escalation, because it is a blank check for us. We just get to pay 50 percent, we don't get to say anything about how it is to be constructed.

Originally this project was to be constructed through the use of coffer dams. Then it was changed, because the thought of cost savings through the construction of—or in place—I'm sorry, build in-the-wet, and that experimental engineering technology has not worked out.

Mr. Chairman, I would conclude my statement by saying, as Mr. Little emphasized, we have a business-Government proposal, jointly worked on, jointly recommended to you to develop a capital investment plan for this program. We think it is reasonable. It has a prioritization component. It has a cost-sharing component. It has a project reform component, and it has a revenue component, where the users recommend additional user fees be paid by the commercial sector.

I commend that to you, and I also commend the President for recognizing—the first time ever a President has recognized that inland waterways are vital, job-creating opportunities. And the President's jobs act, he included specifically inland waterways.

And I would like to thank Secretary Darcy for the recognition of the President of the vital nature of our program.

Mr. Chairman, I look forward to questions, and thank you for your generosity in having me here today.

Mr. GIBBS. Thank you.

Mr. Ebke, the floor is yours. Welcome.

Mr. EBKE. Chairman Gibbs, Ranking Member Bishop, and distinguished members of the subcommittee, thank you for the opportunity to testify today on behalf of the National Corn Growers Association as part of this hearing on the importance of our Nation's inland waterways transportation system. My name is Steve Ebke, and I am chairman of NCGA's production and production and stewardship action team, which handles transportation policy for our national organization. I am a third-generation farmer from Daykin, Nebraska, where I grow corn, soybeans, and wheat.

The U.S. agricultural sector is the largest user of the freight transportation network, accounting for nearly one-third of all freight transportation services utilized across the country. With the primary agricultural production in the interior of the country, far from the ports that link to international trade, transportation is critical to the competitiveness of U.S. agriculture in world markets.

U.S. Department of Agriculture research shows the cost of transportation from the farm gate to the consumer accounts for nearly half the cost of U.S. grain at its final destination. Farmers move their crops and receive their inputs by barge, rail, and truck. The competition among these modes of transportation helps farmers receive the best price for their crops, meet their customers' demand for timely delivery of products, and successfully compete with foreign producers.

Even though not all corn growers ship to the Mississippi River, all growers are impacted by it. While my home State of Nebraska is not adjacent to the Mississippi River system, farmers in my area understand the importance of our inland waterway transportation system. Every day the price of grain a farmer receives at his home market is impacted by the price of grain that moves on the Mississippi River to export markets. Each year, more than 1 billion bushels of grain—about 60 percent of all grain exports—are shipped on the Mississippi River.

Modernization of the Panama Canal, expected to be completed in 2014, will lead to expanded agricultural export opportunities within the next few years. Currently, 57 percent of U.S. grain leaving gulf ports makes its way through the Panama Canal. The expansion is good news for corn farmers, as it will lessen transport time, and should reduce ocean freight costs. This is particularly important for containerized dried distillers grains bound for Asian markets.

However, if domestic infrastructure is inadequate, the canal expansion project will be a missed opportunity. The truth is that many locks currently in use within the U.S. inland waterways system are too small for today's larger tows, susceptible to closures and long delays for repairs, and unable to deal effectively with the lines and wait times that result from their obsolescence.

The American Society of Civil Engineers, in their 2005 Report Card for American Infrastructure, assigned a grade of D- to the condition of our river infrastructure. As we heard from the chairman, on the Upper Mississippi River many lock chambers are 600 feet in length. However, the average length of a modern tow, which is 15 barges pushed by a tow boat, is 1,200 feet. Consequently, for a modern tow to navigate through these antiquated locks, it must split in half and transit the lock one section at a time, resulting in costly delays.

The good news is that the construction—that construction has been planned for five new locks along the Upper Mississippi River, and two new locks along the Illinois River. The planning was completed by the U.S. Army Corps of Engineers, and approved by the chief of engineers in December of 2004.

In the 2007 Water Resources Development Act, Congress authorized construction on these seven projects. Unfortunately, in the 4

years since the passage of WRDA, little or no funding has been allocated.

Of course we all realize that in this time of severe budget constraints we must be more responsible and efficient with our Federal spending. That is why, in 2009, the U.S. Army Corps of Engineers collaborated with the Inland Waterways Users Board and other stakeholders to draft the inland waterways capital development plan, which recommends major improvements to project funding and delivery.

In March of 2010, NCGA officially endorsed the inland waterways capital development plan, and we have advocated for its inclusion in any future WRDA bill or infrastructure development proposals. We recognize that any increase in the fuel tax will ultimately be passed on to corn farmers. But NCGA strongly believes that a strategic investment in our Nation's waterways will provide long-term benefits to the agriculture industry. Without a restructured capital development plan, the seven locks authorized in WRDA in 2007 could be waiting decades to begin construction.

In closing, NCGA believes that improving transportation capacity should be a national priority that deserves urgent attention. It is time to provide necessary and long overdue improvements to our Nation's waterways.

Thank you for considering our comments on this important issue.

Mr. GIBBS. Thank you.

Mr. Ellis, the floor is yours. Welcome.

Mr. ELLIS. Thank you, Mr. Chairman. Good morning, Chairman Gibbs, Ranking Member Bishop, members of the subcommittee. I am Steve Ellis, vice president of Taxpayers for Common Sense, a national non-partisan budget watchdog. Thank you for inviting me here today to testify. I have developed a deep knowledge and experience on the inland waterway system through my time in the Coast Guard, and as an advocate.

We have heard about the locks, dams, and engineering, also that the inland waterways system is an important part of our Nation's transportation network. It is, carrying nearly 5 percent of the total freight in 2007, according to the Congressional Research Service, the vast majority on the Mississippi and Ohio river systems.

While others have extolled the efficiencies, the system also has limitations. Barges have to follow the river, while trucks and rail go virtually anywhere in the country. All of the segments require some engineering to be navigable. Many have a series of dams to maintain adequate depth, with locks to provide passage through the dam.

Beginning in 1986, users contributed to the construction and major rehabilitation costs, half from a fuel tax-financed Inland Waterways Trust Fund, half from the treasury. Since 1996, that tax has been 20¢ per gallon. The administration estimated \$87 million in revenue from the tax in fiscal year 2012.

Unlike the highways, railways, ports, and other Corps programs under this committee's jurisdiction, inland waterway users pay nothing for maintenance. There is no market mechanism to separate the waterway wheat from the chaff, yielding a system where 17 segments had 2.3 percent of the total traffic, yet reaped 30 percent of the operations and maintenance funding. By the Corps' own

analysis, over the last 3 years users have recovered only about 8 percent—8 percent—of inland navigation costs. In contrast, coastal ports users cover nearly 80 percent of the costs.

The taxpayer-funded Inland Waterways Users Board developed a proposal, with significant Corps assistance, to dramatically increase the subsidy for the inland waterway system. In light of a \$1.3 trillion budget deficit, and our Nation's more than \$14 trillion debt, I thought about how to charitably characterize the proposal, but all I could come up with was "greedy."

The draft proposal that has been circulating jettisons the modest increase of the gas tax included in the original. Everything else is the same, including shifting major lock rehabilitation projects costing less than \$100 million to the taxpayer. That would represent all major lock rehabilitations to date. It also illogically makes taxpayers solely responsible for navigation, dam construction, or major rehabilitation. The dams were built to facilitate navigation. You can have a dam without a lock, but a lock without a dam is worthless. This would also violate Federal cost-sharing rules for dam projects.

Lastly, all cost overruns would be charged to taxpayers. Look, I think the Corps' motto should be, "We may take twice as long, but we cost twice as much." The Corps noted cost overruns are, in part, because optimal funding is assumed, while also noting, "This is never the case." This calculation skews the benefit cost ratio in favor of approving all Corps projects. The proposal would put inland waterway construction projects in an exalted status that exists for no other Federal project.

Any lawmaker with Corps projects in their district should take note. There will be real and serious impacts from the Inland Waterways Users Board proposal. They want \$380 million for construction annually, more than doubling present spending levels.

Congress is supposed to adopt at least \$1.2 trillion in deficit reduction by year's end. It is unrealistic to think the Corps' budget is going to increase in the foreseeable future. That means it is a zero sum gain. Any increase for inland waterway projects will come at the expense of harbor deepenings, beach replenishment, flood control, and environmental restoration projects.

I am not aware of an entity similar to the Inland Waterways Users Board. There is no port or highway or airport users board made up entirely of industry officials and staffed by Government employees, empowered to make spending recommendations from a trust fund. The Inland Waterways Users Board should be abolished.

One of the main drivers of cost in an inland waterway system, both construction and operations and maintenance, is the navigation locks. A new financing structure must incorporate some sort of lockage fee, be it flat or sliding, to help combat congestion delays. Rather than increasing the current 90 percent subsidy, the inland waterway industry needs to bear at least some of the cost of operations and maintenance.

Finally, we sorely need a prioritization mechanism. Earmarks detracted from a rational budget process. The earmark moratorium, which we strongly supported, but one of the problems of it is that it enables the administration to select the winners and losers,

using black box decisionmaking. Congress should work with the administration to develop transparent and realistic criteria and metrics to evaluate and prioritize projects. We cannot afford to spend, based on political muscle.

Our Nation's debt dictates hard choices and shared sacrifice. Instead of another taxpayer handout, we need a thorough re-evaluation that shuts down the deadbeat waterways, and prioritizes our investment Corps-wide. It cannot simply be about spending more, it has to be about spending wisely.

Thank you for the opportunity to testify, and I look forward to answering any questions you might have.

Mr. GIBBS. Thank you. We will begin questions. I will start off.

Secretary Darcy, in your testimony you talk about the \$420 million in the stimulus bill to go for capital projects for our inland water system, and another \$394 million for operation and maintenance. Since I've been in this job just a little more than a half a year, I'm trying to figure out where the spending is happening on the projects, and trying to prioritize.

Can you describe, on the capital side, the \$420 million, what projects those went to? Or, if you can't, can you provide us with a specific list of the expenditures?

Ms. DARCY. I can provide the specific list of the expenditures, but the \$420 million, that number was for the inland system.

Mr. GIBBS. OK, yes, but I just would like to see a specific—

Ms. DARCY. And that was—again, that was the construction side, because we didn't have to take—the Congress waived the match from the trust fund.

Mr. GIBBS. OK. I would like—I would be interested to see the specific list of—

Ms. DARCY. Be happy to.

Mr. GIBBS [continuing]. Dollar to dollar expenditure. Also, on the Inland Waterways Users Board, it is my understanding that the board is not functioning right now, because the administration hasn't re-appointed, or appointed, so that everybody's terms have expired. What's the status on those appointments?

Ms. DARCY. The appointments are pending. What has happened is within the larger Department of Defense, all boards and commissions are being evaluated as to their current status. And what we have done in the past, because of the requirement in statute about the membership on the board, it says that those members should be representing their industry. We have had to get a waiver from the Department in order to have that requirement met.

So, we have asked for that waiver again, because currently, if you are on a board, you have to serve as a consultant to the Army, and that would fly in the face of why these people are actually representing their industries on this board. So we have always asked for a waiver. This year we've asked for a waiver again, but that is currently under consideration at the Department of Defense.

Mr. GIBBS. OK. So the—even though the WRDA—I think it was the 86—

Ms. DARCY. 1986, right.

Mr. GIBBS. Yes, specified, set the board up. But you're saying you have to have a waiver, because the Defense policy—is that administration policy, or is that a conflict with another law?

Ms. DARCY. It is—I think I can cite the regulation for you, if you give me a second here. Hold on 1 second.

[Pause.]

Ms. DARCY. I don't have the exact—in my notes I don't have the exact regulation.

Mr. GIBBS. OK, can you get back to the committee?

Ms. DARCY. Yes.

Mr. GIBBS. Answer that question, because I've looked at the law, and it seems to me the law is clear that the industry should be represented.

Ms. DARCY. Right.

Mr. GIBBS. After all, they are paying the diesel fuel tax going—that was how it was set up.

Ms. DARCY. Right. And I agree, and that is why we have asked for the waiver in the past, so that we could comply with the statute.

Mr. GIBBS. But I just want to know why we have to have a waiver.

Ms. DARCY. Right.

Mr. GIBBS. OK?

Ms. DARCY. Yes sir.

Mr. GIBBS. Also, any specific recommendations from the board, inland waterways board, has the Corps carried out to speed up project delivery? Can you cite anything that the users board has specifically recommended that the Corps has adopted to help speed up project delivery?

Ms. DARCY. They had several recommendations, some administrative recommendations in their plan, and some of them we have undertaken. One was the call for independent external peer review, which we have been doing. One was increased training for our project managers, which we have been doing. Another is to use risk-based cost analysis, which we have been doing.

And we also are considering some of the other administrative recommendations that they have recommended, and we're considering those at headquarters now.

Mr. GIBBS. I want to open it up, question to all the panelists who want to respond. And we talked about Panama, widening and deepening, and 2 or 3 years away. And I don't think it is been that many years they've been working on it.

I know in some of your testimony there was a lock and dam around Louisville, Kentucky, that was built in the late 1950s, early 1960s, and then one right next to it, took 10-plus years, or whatever it was. I'm really concerned about project delivery.

Can anybody respond to what is happening? Because back in the 1950s and 1960s, when the projects were carried out, they seemed to be carried out in a pretty efficient manner, and within budget. And now we're seeing delays, delays, and expenditures—of course the Olmsted really sticks out.

What's happening here? Is it—and Mr. Little, I will let you respond.

Mr. LITTLE. Yes, thank you, Mr. Chairman. If—I could begin to try to answer that question, because we had the same question. Why is it taking so long? Because we used to see these projects completed in a much more timely fashion.

The example you referred to, McAlpine Lock at Louisville, Kentucky, there is a 1,200-foot lock chamber at McAlpine that was built in 3 years, from 1959 to 1962. Next to it, a virtually identical lock chamber, 1,200 feet, took at least 10 years to build. And it was dedicated in 2009. There are example after example like that.

We went to the Corps of Engineers a few years ago—I may have referred to the year in my testimony, so I'm relying on my memory right now, which may not be exactly right, but it was around the 2006 timeframe—with the exact same question. Why is it taking so long? And we asked the Corps at that time to consider undertaking a study to examine projects that are lagging behind, versus better projects.

The Corps did that study, and after about a year they reported their findings to us. It is called the selective case studies. Those of us in the industry refer to it as the good, the bad, and the ugly, because they looked at different projects, some better than others. They began to identify some factors that explained why projects were taking so much longer.

They briefed the users board at a users board meeting a year after they started the study. And to their credit, the Corps at that time said there were some improvements that needed to be made. About a third of these costs have to do with inefficient funding, because it is kind of like when you build a house. When you start to build a house, you want the money, you want to get it in, get it done. And the other two-thirds of the cost increases were due to changed conditions with the Corps' estimate and conditions at the site, and various other things. About two-thirds was within the Corps' purview, about a third was inefficient funding.

Based on that study, and those findings, the Corps then asked the industry to join with them and to try to develop a better way of scoping these projects, of funding these projects, of prosecuting this plan. It was that effort that led us to the report.

Mr. GIBBS. OK, I'm going to interrupt you, because my time is up.

Mr. LITTLE. OK, I'm sorry.

Mr. GIBBS. We will get back to that, because I've got some follow-up questions.

Mr. LITTLE. Yes, sir.

Mr. GIBBS. Mr. Bishop?

Mr. BISHOP. Thank you, Mr. Chairman. Let me start. Secretary Darcy, a few moments ago you were—the chairman asked you about the waiver and the policy. Just to be clear, the policy of the Department of Defense from which you are requesting a waiver represents longstanding policy of the Department of Defense. Is that correct?

Ms. DARCY. That is correct.

Mr. BISHOP. It is not new policy implemented by the Obama administration. Is that correct?

Ms. DARCY. That is correct—

Mr. BISHOP. Thank you.

Ms. DARCY [continuing]. It is not new, and it is not just targeted toward this.

Mr. BISHOP. Thank you, I appreciate the clarification. Mr. Little, I want to sort of focus in on the funding piece of this. I think we

all recognize that the inland waterway infrastructure is in need of upgrade, need of ongoing maintenance, need of modernization, et cetera. I don't think anyone argues with that. I think the challenge is how do we fund it.

And the proposal that the board has made represents, I think it is reasonable to say, a significant proposal to cost-shift away from users to general revenue. And let me be specific. For lock rehabilitation, for between—for projects that cost between \$8 million and \$99 million, current law, 50 percent trust fund, 50 percent general revenue. The proposal is it would be 100 percent general revenue. For dams, current law, 50 percent trust fund, 50 percent general revenue. The proposal is 100 percent general revenue. For all cost overruns, 50–50 split current law, 100 percent proposed for general revenue.

So, there is a significant movement away from dependence on the trust fund to dependence on general revenue. I think Mr. Ellis, in his testimony, quite correctly pointed out that in the environment in which we find ourselves, it is simply unreasonable to think that the top lines for the Army Corps of Engineers budget are going to increase. Construction budget isn't going to increase, operation and maintenance budget isn't going to increase in any meaningful way, and most likely it is going to decrease in the environment we're currently in.

So, my question to you is, if, in fact, we are going to undertake these projects, and if, in fact, a significant share of the burden for undertaking these projects is going to move away from the trust fund onto general fund revenue, what is your construct? How do you see the Corps going forward? How do you see—I mean, in other words, whose ox gets gored? If we're going to spend more than we're spending now on infrastructure projects related to the inland waterway system, who is going to lose? I mean what's your notion of who loses?

Mr. LITTLE. I appreciate—

Mr. BISHOP. Someone's going to lose.

Mr. LITTLE. And I appreciate the question, and the nature of the question. If I could, let me try to address some of the points you made, and maybe elaborate a little bit on what our thinking was, as we worked through this.

Mr. BISHOP. OK, I'd ask you to do it as quickly as you can, because I've got 1 minute and 51 seconds.

Mr. LITTLE. All right, I will go as quickly—

Mr. BISHOP. And I have one other question.

Mr. LITTLE. All right. \$100 million on rehab. What we have seen in our review was some O&M money—or O&M work was being deferred, we thought, so we thought we saw some migration of some work that should have been O&M migrating over into the rehab sector. So that is why we thought a bright line test on the rehab was appropriate. \$100 million was where we pegged it. There is no magic in that number, maybe it needs to be a different number, but that made sense to us to keep work from migrating from O&M into rehab.

Regarding the 100 percent cost share on dams, we recognize, as Dr. Bray has identified, there are many beneficiaries to the system. We are not proposing—

Mr. BISHOP. Mr. Little?

Mr. LITTLE. OK.

Mr. BISHOP. I want you to focus in on—

Mr. LITTLE. OK.

Mr. BISHOP. I mean I understand you represent a subset of our transportation infrastructure, and I understand you have an obligation to advocate for it. We have an obligation to make judgments that are balanced.

Mr. LITTLE. Right.

Mr. BISHOP. So, guide us. If we're going to provide more general fund revenue to the inland waterways system, who should we take it away from?

Mr. LITTLE. I can't answer that question for you, but I can tell you that the service that we provide to the Nation—and we are just working for the electric utilities, the farmers, the petroleum product producers—is of great value to the Nation—

Mr. BISHOP. So, if I may, it sounds to me like what you're arguing for is a higher top line for the Army Corps of Engineers, because I think most reasonable people would say that what the Army Corps of Engineers does, in general, has a benefit to either the Nation, as a whole, or to a subset of the Nation. Correct?

Mr. LITTLE. Yes. And I believe this does have a benefit—

Mr. BISHOP. So—

Mr. LITTLE [continuing]. To the Nation, as a whole.

Mr. BISHOP. So you would suggest higher Federal expenditures from general fund revenues for the Army Corps of Engineers.

Mr. LITTLE. And, with our business model, we are saying we are willing to pay more fuel tax. We're looking at a 30 to 45 percent increase of tax on our—

Mr. BISHOP. Chairman, I thank you for indulging me on that issue. And either Mr. Little or Mr. Toohey, my understanding is that there are proposals circulating now that do not yet have a legislative vehicle, but are—that would eliminate the proposed increase in the diesel fuel tax, and that—but we would still go forward with the cost share as proposed in your business model.

Mr. LITTLE. Right.

Mr. BISHOP. And my question to you is, how serious are you about the increase in the diesel fuel tax? Will you reject a proposal that doesn't include both?

Mr. TOOHEY. It is a package, Mr. Bishop. Yes, sir.

Mr. LITTLE. Yes.

Mr. TOOHEY. We want a package.

Mr. BISHOP. So—

Mr. TOOHEY. We're not—we don't want just the tax increase, and we don't want just the cost sharing. It is a package. Yes, sir.

And the other thing I'd suggest to you is, if you're looking for areas, this is investment spending. It returns value to the Nation, it creates economic opportunity, it funds our place in the world, versus consumption spending, which is taken and spent and returns nothing.

Mr. BISHOP. Sir, I would like you to join us as we argue other pieces of what has been proposed. You heard earlier the stimulus referred to as the failed stimulus. That was investment spending.

A great deal of it in the main was investment spending. So if you want to help me make that argument—

Mr. TOOHEY. But a small percentage went to infrastructure, versus consumption spending. And I'm not arguing what's right or wrong. I mean those are all legitimate appropriations by the Congress. You make the decisions—

Mr. BISHOP. Right. My time has expired, I appreciate the indulgence of the chairman.

Mr. GIBBS. OK, thank you. Representative Bucshon, do you have a question?

Dr. BUCSHON. Thank you, Chairman Gibbs. Chairman Gibbs and I had the pleasure of touring the Olmsted Lock, and good to see you again, Mr. Little.

A couple of things, being a new Member of Congress, are clear to me, that all of us are really charged, I think, when it comes to the understanding of the American people, the importance of our inland waterway system.

I mean I consider myself a fairly well informed citizen. And to be honest with you, before I became a Member of Congress and a member of this subcommittee, I really had no idea about this system, or the significance, and what it means to our country, economically. And so, I would just like to say that all of us are charged to inform the American people about the importance, and get the American people on our side.

That said, we have significant challenges when it comes to funding not only our inland waterway infrastructure, but our highways and other infrastructure projects around the country.

And I guess my question—I will just ask Mr. Little—under the current system, how many authorized projects will we be able to complete, do you think, in the next 20 years? And under the capital development plan, how will that improve?

Mr. LITTLE. Our estimate is, if we don't fix the broken business model, we can expect to finish about 6 projects over the next 20 years, versus our plan, based on the information we had at the time we developed the plan, it looks like we could finish 25 projects.

Dr. BUCSHON. That is a tremendous difference. And again, reiterate that your plan does propose an increase in, essentially, the user fees as a balanced type proposal to fund the infrastructure, going forward.

Mr. LITTLE. Yes, sir. That is correct.

Dr. BUCSHON. And Mr. Chairman, I don't have any other specific questions, so I will yield back my time.

Mr. GIBBS. OK, thank you. Representative Ribble, do you have any questions? Go ahead.

Mr. RIBBLE. First of all, thank you, Mr. Chairman. Thanks to the panel for being here.

I spent my entire lifetime in construction, and so I guess my first question is going to go to Ms. Darcy.

In your testimony, you advocate for additional revenue that would enable a more robust level of funding for safe, reliable, cost-effective, and environmentally sustainable waterways, and contribute to deficit reduction and economic growth. Do you think that

the Olmsted project that now is costing the taxpayer three times as much and taking twice as long meets this criteria?

Ms. DARCY. Congressman, as you know, we are confronted right now at Olmsted with increased costs. We are currently evaluating those increased costs, and will come up with a determination as to whether those increased costs would meet the criteria you just outlined.

Mr. RIBBLE. But typically, ma'am, when demand is down—which it is, down in the U.S. construction industry, by about 20 percent—costs go down. And efficiency goes up, as contractors want to compete for this type of work. Why do you suppose that is not happening? What is lacking in your controls that are causing this debacle on the taxpayer?

Ms. DARCY. That is the point of what we're trying to undertake in the next couple of months, is to see what went wrong. These costs have escalated. Part of it is due to some of the conditions in the river. Some of it is because we, this year, had five 3,500-ton shells that we put in the water that actually are going to cost us more. And so we're learning from what we did there.

And we have an outside independent review of the costs that we hope to have by the end of the year, so we can make a determination on what we should be spending, going forward.

Mr. RIBBLE. You heard Mr. Ellis testify. And his—at least implied—or implication was that the problems are systemic. Are they systemic?

Ms. DARCY. I don't think they're systemic, but Olmsted is indicative to us that there is a problem that we need to address. And some of the recommendations made by the earlier report are some that I think we need to take into consideration, especially in going forward. And this is—it is a huge capital investment, and that is one of the reasons we need to take a closer look at it.

Mr. RIBBLE. I'm concerned, as a Member of Congress being responsible for taxpayer dollars, giving the department any money right now, until the problem is fixed. And I know that might slow things down, but at the end of the day it should speed things up.

Mr. Ellis, did I summarize your testimony accurately? Do you believe the problem is systemic?

Mr. ELLIS. Certainly some of the problems with cost overruns with the Corps program are systemic. And so, yes, sir.

You know, you look at the way the cost estimation is being done—and some of this came out in the study that was referred to as the good, bad, and the ugly study, that essentially you had instances where they estimated there would be optimal funding. And the Corps recognizes there is never optimal funding. Congress has got 535 mouths to feed, and likes to spread the Corps funding over a lot of different projects, it is part of the reason why things are delayed.

Also, the fact that they've gone for technological advances and assumed savings that aren't reality right now, and that is a problem also in other lock projects, as well. And so I think that there are lessons to be learned. Unfortunately, for taxpayers, sad lessons to be learned, but lessons to be learned that could try to improve the Corps program.

I would also note that one of the recommendations was independent peer review, which was something that wasn't in the Water Resources Development Act of 2007, and we broadly supported and think should be increased and empowered greater.

Mr. RIBBLE. As a commercial roofing contractor, maybe I need to get into locks construction. It is kind of the job that keeps on giving.

I would like to refer to Mr. Toohey. First of all, thank you for your testimony, particularly the written testimony. It is rare that I get to read a document that refers to the Federalist Papers. I appreciate how thorough your testimony was today.

In your recommendations, you suggested on the revenue side, "to provide additional revenues to the IWTF in a reasonable and supportable fashion, possibly through user fees assessed in a fair and equitable manner." I only have a few seconds left; what is fair and equitable?

Mr. TOOHEY. We recommend a 6¢ to 9¢ increase in the fuel tax paid by the commercial users of the system.

Mr. RIBBLE. And that would be the net sum total of the users—

Mr. TOOHEY. Of the commercial contribution. Now, recognize there are many beneficiaries of the system, as Dr. Bray testified to. And their contribution is manifest through general fund appropriations.

Mr. RIBBLE. How do we protect commercial users from unreasonable project cost escalation and delay?

Mr. TOOHEY. Our suggestion is to fundamentally change the formula by which we are assessed the burden of paying for the system, and that is that we cap the cost at Olmsted at the—and—at our current contribution, and any further cost overruns be borne by the general revenue, the general beneficiaries, the other beneficiaries of the system.

We cannot provide a commercially viable system, we cannot get a return on investment, we cannot stay in business, if we are constantly faced with a blank check, where one entity tells us, "This is the amount you're going to pay," and we don't have anything to say about it. You know?

And we are terrified about the number that the Corps is going to impose at Olmsted on us, and it prevents 24 job-creating projects on the Upper Mississippi from going forward, and \$3 billion in environmental restoration funds for that system to be expended by the Corps. The Upper Mississippi program is \$5 billion: \$2 billion goes to navigation improvement and \$3 billion goes to environmental restoration. None of that is going to go forward until we figure out Olmsted.

Mr. RIBBLE. Thank you very much for your testimony. Mr. Chairman, I apologize for going over my time. Thank you, and I yield back.

Mr. GIBBS. Representative Napolitano?

Mrs. NAPOLITANO. Thank you, Mr. Chairman, and Ms. Darcy, I would like to start off with asking you the—in December of 2010 you sent a letter to the former chairman of the committee, expressing the administration's views on the Inland Waterways Users

Board capital development proposal. Does this letter still represent the view of the administration?

Ms. DARCY. Yes, it does.

Mrs. NAPOLITANO. Thank you. And I will ask, Mr. Chair, unanimous consent to include this letter for the hearing.

Mr. GIBBS. So ordered.

[The information follows:]



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DEC 21 2010

Honorable James L. Oberstar
Chairman
Committee on Transportation and Infrastructure
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman,

This is in further response to your letter of July 20, 2010, regarding the report of the Inland Waterways Users Board (Board) entitled *Inland Marine Transportation Systems (IMTS) Capital Projects Business Model* (report) and dated April 13, 2010. As requested, this letter provides the Administration's views on the recommendations for certain changes in current law in the report, which were endorsed by the Board on December 15, 2009, and finally approved by the Board on April 13, 2010.

The Army shares many of the goals of the Board for the inland waterways. The Civil Works program of the Army Corps of Engineers facilitates commercial navigation by providing support for safe, reliable, highly cost-effective, and environmentally sustainable inland waterborne transportation systems. We look forward to working with the Committee and all affected stakeholders to achieve this objective.

Among the recommendations of the report endorsed by the Board is a 20-year capital development plan that prioritizes project construction. The report also recommends that each project be funded efficiently through its completion. A long-term investment plan such as the Board has proposed, which reflects its priorities, can help highlight the needs and inform development of a broader strategy for the inland waterways. While the Army appreciates the Board's recognition of the value of long-term planning, the importance of funding prioritization, and the benefits of more efficient project delivery, we would note that the specific projects and levels of funding are subject to future budget and appropriation decisions. We also believe that a long-term plan should place more emphasis on work such as rehabilitations that are needed to continue providing a current level of service on the principal inland waterways. Furthermore, all projects that receive Federal funding should demonstrate a strong economic justification and complete the Executive Branch project planning and review process, which most of the projects in the Board's 20-year plan have not yet met, and some of them may not be able to meet.

In addition, the Army commends the Board for recommending administrative improvements, some of which will also benefit the broader Civil Works program. As the report notes, the Corps of Engineers has implemented three of these administrative improvements (training for project managers; use of risk-based cost estimates; and independent external peer reviews of projects meeting certain criteria). Other

recommendations of the Board for administrative improvements are under consideration. However, we have concerns with several of the Board's other administrative recommendations that will require further discussion.

The Army also has serious concerns with several of the major recommendations in the report, particularly with the recommendations for major changes in cost-sharing, which over the next 10 to 20 years could shift to the general taxpayer billions of dollars in costs that are currently, and appropriately, the responsibility of those who use these waterways to transport their goods. We incur these costs on their behalf, and they benefit directly from these expenditures.

Under current law, the construction and rehabilitation of most projects on the 27 inland and intracoastal fuel-taxed waterways is financed 50 percent from the General Fund of the Treasury and 50 percent from the revenues paid by waterways users into the Inland Waterways Trust Fund (IWTF). The report recommends exempting from cost sharing: (1) nearly all lock rehabilitation work; (2) all work on construction of a new dam, including the associated features and components; (3) all work on the replacement, rehabilitation, expansion, or extension of an existing dam, including the associated features and components, and all dam safety assurance, seepage control, and static instability work; and (4) for all other capital investments, all or most costs in excess of the original cost estimate provided by the Corps. The Army opposes these recommendations, which would erode the current framework for non-Federal cost sharing for this program. These recommendations would transfer a significant responsibility from the users, represented by the Board, to the general taxpayer. Such a major shifting of costs is inconsistent with the user-pay principle that helps to guide Civil Works investment decisions. Specifically, the Army opposes:

- Financing of Lock Rehabilitations: The Board recommendations would limit the responsibility of the users to contribute a cost share of rehabilitations to the work on a lock and only to those lock rehabilitations that cost more than \$100 million. No project thus far in the history of the program has met this criterion.
- Financing of Dam Construction and Rehabilitations. The report recommends exempting all work on construction of a new dam from cost-sharing, including work on the associated features and components. Furthermore, all rehabilitations of a dam and the associated features and components, including all dam safety assurance, seepage control, and static instability work, would be exempt. The report tries to explain this shift in cost sharing by portraying dams as multi-purpose features that benefit or indirectly benefit non-navigation parties, such as by supporting flood risk management, hydropower, municipal and industrial water supply, recreation, or wastewater treatment. On the busiest inland waterways (the Mississippi River, the Ohio River, the Illinois Waterway, and the Gulf Intracoastal Waterway, which together handle about 90 percent of all inland waterways commercial traffic), the Federal government constructed the dams to support

commercial navigation. That is why the IWTF finances one-half of the capital costs for all work on these dams. On other inland waterways, such as the navigable reaches of the Columbia and Missouri Rivers, the dams truly serve multiple purposes. For these waterways, the IWTF only finances one-half of a portion of the capital costs, based on the share of the work that is allocable to navigation.

Changing this arrangement for inland waterway projects is not justified, and would also have far-reaching implications for allocation of costs for many other civil works projects as well. Furthermore, many non-navigation civil works projects now provide ancillary benefits to those who did not participate in project financing, where these indirect benefits were not part of the justification for the project. Also, the proposal could make construction and rehabilitation of navigation dams subject to authorization of other project purposes and execution of cost sharing agreements with non-federal sponsors of the additional purposes, introducing significant new uncertainties into inland waterways project planning.

- **Cost Caps on Non-Federal Share of Project Costs:** The Board recommended that a cost limit be applied up front to the IWTF amount that could be used for a given inland waterways project. This recommendation would shift project costs from the users of inland waterways projects to general taxpayers. The report of the Board points out that inland waterways users, unlike cost sharing sponsors of other types of civil works projects, do not sign formal cost sharing agreements. However, non-Federal sponsors and users of other civil works projects bear similar cost risks. We believe the appropriate way to address this risk is through good plans, designs, and cost estimates regardless of the project purpose. As noted above, the Board's report included recommendations to improve practices and procedures in this regard, some of which the Army is considering or has already implemented.

The Army also has serious concerns with other major recommendations endorsed by the Board for changes in current law, including:

- **Increase in Revenue to the IWTF:** The Board's recommendation to increase revenue to the IWTF is an increase in the level of the existing diesel fuel tax of 30 percent (and potentially an increase of up to 45 percent) over the current fuel tax rate of \$0.20 per gallon. This would be the first such rate increase since 1996. The Army notes that this level of revenue increase would not be sufficient to support efficient investment in the inland waterways, unless all of the other legislative recommendations of the report to reduce costs allocated to the IWTF also were enacted, which the Administration would oppose. Also, appropriations from general taxpayer revenue would have to be increased substantially to make up the difference that no longer would be derived from the IWTF. The Administration continues to urge consideration of a funding mechanism that is

sufficient to finance capital improvements on the inland waterways efficiently and that is also more efficient and more equitable than the fuel tax.

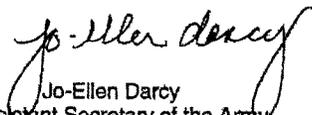
Over the past three years, for example, receipts from the inland waterways fuel tax covered approximately 8 percent of the total cost that the Corps incurred on behalf of the companies that move goods on these waterways in these years, including costs for both capital investment and operation and maintenance. By contrast, our non-Federal partners in the coastal navigation program have paid about 80 percent of the costs of construction, operation and maintenance activities supporting coastal harbors and channels.

While the Board's report addressed capital investments in the inland waterways, we would welcome broadening this discussion to also include how to improve the performance of the roughly \$600 million that the Army now spends annually on the O&M of these waterways. Given Federal fiscal constraints, the Administration believes that discussion should include whether to continue to finance inland waterways O&M costs entirely from general taxpayer revenues in the General Fund without any cost sharing from those who use these waterways to transport their goods.

The Army is committed to improving project planning, design and construction processes in order to more efficiently use available funds to achieve inland waterways navigation benefits. In this regard, the Army looks forward to continuing to work with the Congress, the Board, and other stakeholders.

The Office of Management and Budget advises that the views expressed in this letter are in accord with the program of the President.

Very truly yours,



Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)

Ms. DARCY. Thank you, ma'am.

Mrs. NAPOLITANO. Question. Just following up on some of the dialogue just previously had, a key proposal of the capital projects business model is the project-by-project cost sharing cap. Under this proposal, if the cost of that project increases over time, all of the costs associated by this increase are the responsibility of the Federal Government and the taxpayer, through general revenues.

The question, then, is are you aware of any analogy in any other Federal construction program where the Federal Government assumes any and all cost increases for the total construction of the project? Mr. Little, Mr. Bray?

Mr. LITTLE. Thank you for the question. I am certainly not an expert on other practices within the Federal Government. I can't sit here today and tell you I'm aware of a practice elsewhere.

What we were trying to address was obviously a very important part of the program that we think has failed, and that is the continuously escalating cost of these projects, well beyond their original estimated cost. So we were trying to develop an incentive to hold those costs down, so we could save taxpayers dollars.

Mrs. NAPOLITANO. Thank you. Mr. Ellis?

Mr. ELLIS. We reviewed other infrastructure investments done by the Federal Government. We were not able to find a similar proposal, or similar policy, where the Federal taxpayer picks up the entire tab of any cost overruns. No, ma'am.

Mr. TOOHEY. May I comment?

Mrs. NAPOLITANO. Yes, sir, Mr. Toohey.

Mr. TOOHEY. Recognize that this is a different Federal program. The highway program, the aviation programs are federally assisted programs. The States run the highway program. You know, the local sponsors at the airport authorities run the aviation programs. This is the only Federal, direct Federal interest that we have. And so, the cost sharing is necessarily different, recognizing that.

And remember, Congress once declared that the waterways shall be forever free, the Land Ordinance of 1789.

Mrs. NAPOLITANO. Yes.

Mr. TOOHEY. And now, today, we are confronted with a system that was constructed in the 1920s and 1930s by the WPA—

Mrs. NAPOLITANO. And I understand. I'm sorry, my time is running out. But I understand, because I am also on water, and we have infrastructure that is decaying, and not—we had no infrastructure—way of dealing with the infrastructure repair.

Mr. TOOHEY. But the bar to entry for people on the highway program is you got to buy gasoline, and it is a fuel tax. So 100 percent of the beneficiaries pay the tax. You don't get on an airplane without paying the passenger facility tax, 100 percent of the beneficiaries pay for the system. This system—

Mrs. NAPOLITANO. Thank you.

Mr. TOOHEY [continuing]. One hundred percent don't pay.

Mrs. NAPOLITANO. Thank you. Yes. There are some differences of opinion in some of the areas.

Mr. Little, costs vary substantially from one river segment to another. The current systemwide fees offer limited incentives for efficient use of the resource. Is there any value, in your mind, of setting different fees for different segments, effectively allowing the

market to dictate who should pay to maintain or increase efficiency?

Mr. LITTLE. Yes. We view the waterway system as a system. Mississippi River Basin, the Ohio River Basin, there is a tremendous amount of cargo that comes off the Kanawha River.

Mrs. NAPOLITANO. There is 27 segments, right?

Mr. LITTLE. Right. But the cargo that moves off many of those segments go through the Gulf Coast. So that may be a busy segment, but certainly the cargo and importance to the Nation reaches to all those other segments as well. This is a system that serves the Nation very well in moving cargo to export and to consumers.

Mrs. NAPOLITANO. Thank you. Mr. Ellis?

Mr. ELLIS. It is less of a system, in the fact that there are certain trunks. I mean the vast majority of the traffic goes on the Upper—well, the Mississippi River and the Ohio. Also on the Illinois.

But what you really find is the Lower Mississippi, and particularly even going up the Middle Miss from St. Louis to the Gulf of Mexico, there are no locks. You know, people talked about 15-barge tows? They push 30-barge tows down on that part of the Lower Mississippi River.

And so, generally, you can bring your cargo directly to the Mississippi, rather than going to the McClellan-Kerr, the Arkansas River, and going through a series of locks. So, essentially, there are differences here that you could try to cost out and have cost sharing.

And the other thing I would just point out is that so a lot of the money, the construction money, ends up going to lock construction. As I pointed out, the major workhorse, the Lower Mississippi River, there are no locks. So they pay a huge amount of the gas tax, but actually get not nearly as much of the benefit.

Mrs. NAPOLITANO. Thank you, sir. Dr. Bray, investing in reconstruction and rehabilitation of the IWTF is based on an assumption that total domestic freight traffic will increase. And, to your knowledge, has an assessment been made of that 27 individual river segment to see whether the anticipated future freight use traffic can be balanced against the cost of operations and maintenance, and of course, the rehabilitation of existing structures?

Mr. BRAY. Well, the projections you're talking about are made by the Army Corps of Engineers when they do these studies. And in 2004, the National Academy of Sciences set a peer review process in place. And one would have to believe that some really good people now review those studies, and you would have to believe that any forecast is, you know, a guess, that they are doing probably as well as could be expected, if I get your question correctly.

Mrs. NAPOLITANO. Well, these were assumptions. And given our current economy, it is not really something that we have—and I'm not sure how long ago these reviews were made, as to whether they apply to the current condition of our state of affairs—

Mr. BRAY. Generally speaking, I know the Huntington District—excuse me for interrupting, I know you're short of time—the Huntington District, with which I'm most familiar, will go back every few years and revisit those forecasts. So a forecast that might have been made—it takes 19 years now from the time somebody puts a pencil down to actually a gate closes—would be revisited.

So, to answer, to address the issue you're referring to, they are pretty careful about that. And every few years they do go back and revisit these forecasts.

Mrs. NAPOLITANO. Thank you, Mr. Chair, for your indulgence. Thank you, gentlemen, ma'am.

Mr. GIBBS. Mr. Cravaack?

Mr. CRAVAACK. Thank you, Mr. Chair, and thank you to our panel members. Mr. Toohey, you've been in the business for, what, 40 years?

Mr. TOOHEY. Yes, sir.

Mr. CRAVAACK. Obviously, you've seen a lot through your experience. You're very familiar, I'm assuming, with the work of Dr. Bray. Can you kind of compare and contrast what the capital development plan would be, in regards to his program?

Mr. TOOHEY. Well, I think it builds—you know, we build upon Dr. Bray's research, and our recommendations are based on a lot of the findings of what he says. I don't have his statement in front of me, but he makes many points that we agree with about the need for a Federal interest. So, you know, the identification of beneficiaries, which is a cornerstone of our cost sharing recommendation, those are two of the areas we fundamentally agree with him.

And I think, you know, that his scholarly research is the whole justification for our program, and this committee's Federal interest in navigation.

Mr. CRAVAACK. OK. I was kind of concerned. Right now there is supposed to be a board that is supposed to identify projects. Is that correct?

Mr. TOOHEY. Yes, sir.

Mr. CRAVAACK. OK. Ms. Darcy, can you tell me—I'm sorry I came in late, you might have already mentioned it—what is the status of this board?

Ms. DARCY. Congressman, I did talk about it earlier, but the current status of the board is that the nominations to the board are pending review from the Department of Defense to a waiver request that we have asked from them. And that is where it is at the moment.

And unfortunately, we need a waiver to exempt Inland Waterways Users Board members from being special Government employees, so we're just waiting for a decision from the Department of Defense in order to make that—hopefully make the board operational again.

Mr. CRAVAACK. OK. Any idea when that is going to occur?

Ms. DARCY. I don't.

Mr. CRAVAACK. OK. So right now we're kind of like in limbo status with this board that is supposed to be identifying projects?

Ms. DARCY. Correct.

Mr. CRAVAACK. Well—

Ms. DARCY. However, we have been in communication with the board on a number of issues, including how we can—or members of the board and stakeholders, as to how we can move forward on trying to find a revenue source for the fund.

Mr. CRAVAACK. OK. Speaking of revenue source, you said gas receipts are down. Is that correct?

Ms. DARCY. I did not say that.

Mr. CRAVAACK. I think in your written testimony, or someone—well, I read in testimony somewhere that gas receipts are down. Could you tell why do you think the gas receipts are down? Or can't you comment on that?

Ms. DARCY. I don't—it was not in my testimony, and I'm—if it wasn't someone's here, I would defer to them. But I don't know why gas receipts are down, other than the fact that people aren't driving as much.

Mr. CRAVAACK. OK.

Ms. DARCY. But that is just my uneducated guess.

Mr. CRAVAACK. OK. Well, Mr. Ebke, you said, coming up from the northern part of the Mississippi area up in Minnesota, you said that the increase in fees are going to be passed to your members. So does that mean you endorse the increase of fees? Would that be correct?

Mr. EBKE. That is correct. In March of 2010 the delegates to our policy-setting session agreed that we would accept—in fact, we're probably a little higher than what they're suggesting. We would go up to 20¢.

Mr. CRAVAACK. OK, 20¢. And do you think this is sustainable within the system without, you know, eliminating jobs? Mr. Toohey, what do you think?

Mr. TOOHEY. What do I think about a 20¢ per gallon gas tax?

Mr. CRAVAACK. Yes.

Mr. TOOHEY. I think it is too much.

Mr. CRAVAACK. Yes?

Mr. TOOHEY. And it will stifle economic opportunity.

Mr. CRAVAACK. OK. Mr. Ellis, you made a good comment, you have 535 mouths to feed as part of the systemic problem of, you know, which Army Corps project is going to be utilized, which I think is—probably going back to the board, shouldn't a board be identifying which projects should be—for the right projects for the right reasons at the right time? I mean—

Mr. ELLIS. Well, I think that the Corps has to work with all of its constituencies. It is not just the inland waterways, as far as projects. I mean there are projects all over the country that are beach replenishment or flood control or environmental restoration or other navigation projects.

And so, clearly, the Corps has to work with the stakeholders. And they do, generally, in the development of these projects. But also, Congress needs to work with the administration to develop a prioritization system. And that is really what I'm getting at, is the program has been spread too far and too thin, which is how a lot of these cost increases happen, Congressman Cravaack.

And so, I think that it actually would serve the beneficiaries, the Congress, and the administration, and the taxpayer better if we actually prioritized our funding, finished a project, moved on to the next project, finish that one, move on to the next project.

Mr. CRAVAACK. And do you think that method, there would be—like, what is there, 25 outstanding projects right now? That would be a way to conquer this?

Mr. ELLIS. Well, I think that you would start tackling, you know, the top of the list, wherever it is in the Corps' program, and you'd

knock those out, and you'd move on to the next projects. And the problem with that is, of course, it doesn't go very well with politics, because some people, some of those 535 members, both the House and the Senate, are going to go home empty handed. And Congress doesn't like doing that, normally.

Mr. CRAVAACK. Just—indulgence for just a second. Ms. Darcy, in this board are politics part of this? Or is it prioritizing which projects need to be done?

Ms. DARCY. No, it is prioritizing which projects need to be done.

Mr. CRAVAACK. OK. Then I strongly suggest we get this board rolling.

Ms. DARCY. OK. Could I—

Mr. CRAVAACK. So—

Ms. DARCY. Could I also correct—when you asked me about the gas tax, I was thinking gasoline tax, as opposed to the diesel tax that is on the—

Mr. CRAVAACK. Diesel? Oh.

Ms. DARCY. Right. And—

Mr. CRAVAACK. My fault.

Ms. DARCY. No, it is not your—I just had a different tax in my head. But in answer to your question, I think some of the reasons that the receipts are down is there has been lower traffic because of the slowed economy, in addition to the fact that we have also had some more efficient engines on our tugs. So, you know, that can be another contributor.

Mr. GIBBS. Mr. Little, I think you wanted to respond, and I will give you a chance.

Mr. LITTLE. Yes, Chairman Gibbs, and thank you. I just want to make sure that the record is clear on a couple of things.

As this board—and I served as chairman on the users board for 2 years—my term has expired. So there are no current users board members right now.

Mr. CRAVAACK. Right.

Mr. LITTLE. There are no members to talk to. There is not even one member to talk to.

But part of the process we went through in developing this capital development plan was to look at all the work out there for inland waterways projects, and we went through a prioritization process, very elaborate, established objective criteria, basically looking at the condition of the project and the economic benefit. And so, we did a ranking. It is not perfect, we've never said it was perfect, but it was our good faith attempt to develop some kind of rational objective prioritization, so that we could start to complete these projects, one after one.

As you may well know, we do pay—the commercial users do now pay a 20¢ a gallon fuel tax. We pay that now, it goes into the trust fund. We have fixes, we think, to the broken model. And we believe in it enough that we have said we are willing to see that tax increase from 20¢ to about 26¢ or 29¢ a gallon if we fix all these other things that need to be fixed. This plan was developed with the Corps of Engineers professional staff and the industry, and it is a good plan.

One final thing is—I think Secretary Darcy touched on it—during the recession we saw revenues into the trust fund diminish, as

you would expect. We are seeing the revenues increase a little bit now, not so much because of the domestic economy, which still has a tepid recovery going on, but we're seeing some increase in traffic due to exports: grain exports and coal exports. That is the thing that is starting to kind of tip this thing in the positive direction a little bit more.

Mr. CRAVAACK. Thank you, Mr. Little. Appreciate that. And with that, sir, I yield back the remainder—

Mr. GIBBS. Thank you.

Mr. CRAVAACK [continuing]. Negative part of my time.

Mr. GIBBS. Mr. Lankford?

Mr. LANKFORD. Thank you, Mr. Chairman. Let me just kind of jump in the conversation on a couple things.

Ms. Darcy, what is your best guess—I know you all have been studying it, looking at some of the cost overruns and the expectations, the estimates coming in. You've got to have something in the back of your mind when an estimate comes in at one level, it comes up much higher. As you're beginning the process of studying it, what are the big rocks that are in that that you would see?

Ms. DARCY. Are you referring to Olmsted?

Mr. LANKFORD. Yes.

Ms. DARCY. Yes.

Mr. LANKFORD. Or just take any one of the projects.

Ms. DARCY. Oh.

Mr. LANKFORD. So—but if you want to take that one in particular—

Ms. DARCY. Well, Olmsted, I earlier said that we are reviewing the increased cost estimates, and it would just be a guess to give you a number, and I don't want to do that.

Mr. LANKFORD. Not a guess of the number, a guess of why.

Ms. DARCY. I think probably a number of things. One was some of the conditions in the river were different than what we had initially thought would be there. Again, some of the shell casings that we have put in have been more expensive than we had originally thought, as far as not only the time it takes to process—to produce them, but also the time it takes to install them. Those are two of the many reasons I think that we're going to—

Mr. LANKFORD. Does the Corps currently—with some of the projects that are ongoing, does the Corps currently work with—I know—let me back up and say this. I know you work with the people that it affects. Obviously, all the different ports, all the different folks, and the people that are affected on that.

How are they engaged in setting priorities through the board on these different individual—and I'm from Oklahoma, to give you some clarity there, and so we have a great interest there in the Port of Muskogee, Port of Catoosa, and others. How are those priorities set?

And then, are they allowed to engage? Because obviously, those—that port has great interest in seeing the projects done. The dredging the locks, they can cry out and they can complain, they can say, "Move us higher on the list." How can they get engaged in the process?

Ms. DARCY. Well, I guess, from the—we have been engaged with the users board, and that is one way. I'm not sure if—from Okla-

homa, what region—who would have been appointed to the board—

Mr. LANKFORD. Right.

Ms. DARCY [continuing]. To represent those interests. But that is what the board was established to do, was to be able to represent the interests of the—

Mr. LANKFORD. But now, with the board not functioning at that point, now how do they do that?

Ms. DARCY. At the moment there is no official board input. However, we have sought to continue the dialogue that the industry has provided for us, in trying to establish a new revenue source.

Mr. LANKFORD. OK. Is there a way for the Corps to be able to look at some of these projects—and let me give you—I'm going to run a couple questions at a time around it.

One of them is—I have an impression, and it is only my guess based on construction background and some things—if you run 1 project and do it fast and get it done, it seems to be cheaper than running 20 projects, each of them taking 20 years apiece. Would you say that is right or wrong on that? Just in a general sense.

Ms. DARCY. I think generally that is correct.

Mr. LANKFORD. See, it goes back to Mr. Ellis's comment that every congressional district wants the work done in their district. And so, to show progress, that we are working in your district, we're going to start this year and we will end some time before the sun burns out. And so it is this ongoing—it never seems to get done, because there is not enough funding to complete projects. There is enough funding to start projects and to be able to keep them going.

Is there any interest in saying, "We're going to set this priority, we're going to run these priorities. But for you in this location, here is the year your project is going to start, here is the year it is going to stop and be complete"?

Ms. DARCY. One of the things we're looking at doing in developing our budgets in the years ahead is to look for project completions. I mean as you say, you know, funding something to completion is more efficient. And that is, hopefully, the way we are going to be able to—you know, you can't complete everything, but that is part of the priority in setting our budget goals.

Mr. LANKFORD. Right. But there has got to be some way to be able to say, "We are doing fewer projects, but those projects we are doing we are going to get finished, and yours is next in line," and as soon as this one is finishing, this one starts, here is the year this one is going to be complete, and this is the year this is going to take up, just to be cheaper in the process of doing that.

Mr. Toohey?

Mr. TOOHEY. The capital development plan that we developed in cooperation with the Corps of Engineers lays out a schedule for every project that we are aware of, when it will start, when it will end, if our recommendations are adopted by this committee. And it is available. We have it available for the committee. You can look right in there and find those things that are of interest to the members of the committee. But that is our recommendation to this committee.

Mr. LANKFORD. Right. Because if I could say only one thing, it would be it is not a matter of I want to see some dirt turning in my district, it is I want to know when that is going to get solved. Even if I can tell some people, "It is 3 years away, but here is the day it is going to start, and here is the day it is going to be done," is dramatically different than saying, "You see that tractor out there, parked? That is going to be doing something at some point."

Mr. TOOHEY. Yes, and this is our best thinking between the Corps of Engineers and the commercial users of the system on when we can accomplish those projects, and in what order, with a funding level of \$380 million a year. You know, we love the highway program, but we love it with envy, because they're worried about a \$42 billion program versus \$35 billion. We're looking for \$170 million.

Mr. LANKFORD. Right. Mr. Ellis, were you going to say something?

Mr. ELLIS. Just really briefly, Congressman. I was just going to add that it has to be looked at in the overall context of the Corps portfolio. And so, just simply looking at the inland waterway system and not looking at the overall Corps construction budget isn't going to be solving the problem, it is going to kind of pick one set of winners. And so we certainly don't support that.

The other thing I would just point out is that even though the Inland Waterways Users Board, it is expired right now, it is not the only body—I mean the Waterways Council exists to advise the Corps and talk to them, just like the American Association of Port Authorities does the same thing on the harbor program. There is no harbor maintenance trust fund users board. And so I think that there are certainly groups that can try to represent their views to the Corps and to the Congress, absent the Inland Waterways Users Board.

Mr. LANKFORD. OK, thank you. Thank you.

Mr. TOOHEY. But the users board, the intent of Congress laid out in statute in 1986 is that there will be a consultative, consultative process, and it is not happening, because we don't have a board any more.

Mr. GIBBS. And, Representative, that is my point. The law was clear, there will be a water user inland board, and that is why I asked Secretary Darcy earlier to give us the documentation, because my feeling is that the law is clear, and this is the Department of Defense policy decision at the administration level, and I have major concerns about that. And so I want that rectified.

I want to quickly just follow up on my line of questioning earlier, and I want to start with Dr. Bray. We talked about project—streamlining project delivery and I mentioned earlier how many years it has been to do things now. And I understand the Upper Mississippi is an example. They did a 15-year study, spent \$75 million. How long do we have to keep studying things? And, you know, is that part of the problem?

Mr. BRAY. It is part of the problem. And it is not just the Upper Mississippi. They spent about \$70 million on the Missouri. I think that—I think the Missouri River master water manual control project has been looked at, I don't know, three times, maybe four. And they're looking at it again.

And I talked to a guy yesterday in the Corps of Engineers. And in 2004 the National Academy of Sciences made their proposal. And one of the things that came out of all that was small-scale improvements, small-scale improvements like switch boats, mooring cells, which make the lockages go faster. They don't give you any redundancy, but they make everything better, in terms of time. They haven't even done that. I mean there has been no money for that. So it is just been languishing for a period of time.

And I think maybe—there may be some movement now, but from the best I can determine, you're right.

Mr. GIBBS. So we have a big bureaucracy doing a lot of studies, different agencies—I assume the EPA and I don't know who else, but—

Mr. BRAY. I would assume so.

Mr. GIBBS. OK. Does anybody else want to follow up on—yes, Mr. Ellis?

Mr. ELLIS. Chairman Gibbs, I would just point out, though, on the Upper Mississippi River, part of the reason why the study took so long and costed so much was because in 2000 the Corps was found to be cooking the books, that they had actually manipulated the—a formula to justify the project. And the Army inspector general went in, investigated that, and there was two generals and a colonel that were reprimanded for their actions there, and certainly delayed the process—

Mr. GIBBS. I will just interrupt you. I don't know if they cooked the books in 2000, I'm not going to go back to 2000.

Mr. ELLIS. But an Army inspector general did say that. I mean it is—

Mr. GIBBS. That is not my concern. My concern is now I want to see project delivery be reasonable and in budget. And—

Mr. ELLIS. Agreed, sir. Yes, sir.

Mr. GIBBS. And I know we have some issues at Olmsted, and that is why I went out there. And obviously, it is a major engineering challenge, and there is discussion. But I do know that we need to get that project done, because it is taking most of the resources, and we're not getting other projects done that need to get done.

And we are—my fear is, and I think the Corps' fear—interpreted to me—that we are setting ourselves up for a major catastrophe, failure that is going to—the American people will notice it when it happens, and it is serious.

One last question I want to follow up a little bit. Mr. Little, the users board—I think it was an 18-month study, you put your capital development plan together—and before I do that, before I forget, I also want to ask unanimous consent for the record to put in the letter to Secretary Darcy from the Inland Waterways Users Board, the response that you had. So no objections, we will order that in.

[The information follows:]



INLAND WATERWAYS USERS BOARD
Washington, D.C. 20314-1000 (CECW-P)

January 18, 2011

The Honorable Jo-Ellen Darcy
Assistant Secretary of the Army (Civil Works)
108 Army Pentagon
Washington, DC 20310

Dear Secretary Darcy:

We were surprised and extremely disappointed with the administration's view stated in your letter of December 23, 2010 to former Chairman James Oberstar regarding the Inland Marine Transportation Systems (IMTS) Capital Projects Business Model report. Many of the statements contained therein are breathtaking in their disregard of the value that our system provides to the nation through both its transportation and non-transportation uses and the need to address a broken project delivery model that continues to waste billions of taxpayer dollars. Your letter seems to disregard the "collaborative" process your agency proposed and actively participated in that produced the jointly-developed report.

Moreover, we are deeply disturbed that you chose to communicate this position to Mr. Oberstar, an outgoing congressman, the day before the 111th Congress adjourned *sine die*. Clearly, Mr. Oberstar had no opportunity to act on this information, and this action suggests that the administration does not value the efforts or input of our congressionally chartered board. We were not even copied on the letter.



INLAND WATERWAYS USERS BOARD
Washington, D.C. 20314-1000 (CECW-P)

Many of the deficiencies in the present business model were identified in the Corp's Selected Case Studies Report which was initiated in mid-2007 and presented to the Inland Waterways Users Board (IWUB or Board) at meeting number 58 in the summer of 2008. Those findings revealed a number of principal reasons that explain the enormous cost escalation occurring in connection with lock and dam modernization projects on the inland waterways system, including delay-caused inflation, government design changes, design omissions, inadequate cost estimates and differing site conditions encountered during construction. The Corps agreed that these findings highlighted the need for process improvements in engineering, construction and project management. In addition, the Selected Case Studies concluded that "less than optimal funding" accounted for nearly one-third of the cost growth for two large projects (Lower Monongahela and Olmsted). As things stand today, if that one-third cost growth alone had been prevented, almost \$800 million would have been saved compared to today's estimated cost to complete just those two projects.

Recognizing these shortcomings and at the suggestion of Corps personnel, the Corps and the inland waterway industry agreed to work together in undertaking an extensive review in order to identify ways to improve the Corps' project delivery model. A team of approximately fifty key Corps and industry experts, known as the Inland Marine Transportation Investment Strategy Team (IMTS Team or team), worked for one and a half years in order to develop a long-term plan for addressing the critical needs of inland waterways infrastructure. The names of those participants are attached. The Corps even funded and directed the work of the consulting firm, Booz Allen



INLAND WATERWAYS USERS BOARD

Washington, D.C. 20314-1000 (CECW-P)

Hamilton, which was responsible for drafting the team's final report. Incredibly, your letter to Mr. Oberstar would lead an uninformed reader to think that the IMTS' plan was developed solely by the Inland Waterways Users Board.

The IMTS Capital Projects Business Model report, as collaboratively developed by the Corps-Industry team, represents a realistic consensus-based program of \$380 million per year for new construction and major rehabilitation work on the inland waterway system during the next 20 years. This \$7.6 billion, twenty-year investment strategy addresses the highest priority projects as determined by the objective criteria weighting and decision principles developed by the Corps-Industry team.

Of course, you are very familiar with the IMTS plan and its benefits, having personally attended both IWUB meeting number 62 in New Orleans, LA on December 15, 2009, and meeting number 63 in Springfield, VA on April 13, 2010. During both of those meetings Corps personnel presented a detailed briefing to you and the Board regarding the IMTS plan's features and benefits. During the New Orleans meeting you remarked that you were

"...really looking forward to this presentation today as well as how this report can come to fruition in the future". You then went on to say, "...what's being shown here today as well as a way to look forward is the collaboration that's been taking place with this Board in order to get to where you are today. So I look forward to the presentation of your report and look forward to this being a model for how we will work together and make this happen in the future. Thank you."



INLAND WATERWAYS USERS BOARD

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Four months later during the Springfield meeting you remarked:

“...the last time we met in New Orleans, and this time I'm hoping that the results of this meeting—everyone's been anticipating this report, and I think it's going to be something that all of us can look toward. I'd also like to thank Mark and folks from the Corps who've worked so hard on having this report come forward. We anticipate some lively discussion about it, both here and other places within Washington, and I think that's going to be a tribute to all of you here because you stepped up to a challenge that everyone's been talking about for a long time but nobody really sort of took it on. So I congratulate you for that.”

Unfortunately, your recent reversal, as evidenced by your December 23 response to former-Chairman Oberstar, now jeopardizes the collaborative work that you once praised. Ironically, in our view, your actions now diminish the chances that the Administration will be taken seriously as the new Congress begins to develop real-world solutions to the obvious failures of our present system. In addition, your reversal sends a resoundingly negative message to others who do business with the Corps or with other agencies of the federal government. They should be wary of devoting any time and resources to anything characterized as a “collaborative effort”. Likewise, professional Corps staff will have very little if any incentive to work with their non-federal “partners” in developing meaningful systemic changes to current program failures.

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{W0021545.1}



INLAND WATERWAYS USERS BOARD

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Regrettably, we are left with two possible conclusions. The first is that you do not adequately understand or appreciate the importance of the inland waterways system to our nation's economic competitiveness and well-being. The second is that the Corps-Industry team's recommendations did in fact reflect your earlier views but were overridden by others in the Administration who are insulated from direct responsibility for preserving our nation's arteries of commerce. In either case, the future of our nation's economic competitiveness is threatened and serious doubt has been created concerning your ability or willingness to operate in good faith and to lead during this momentous time. Accordingly, we urge you to withdraw the positions set out in the letter and reconsider the administration's position. Despite President Obama's promise of a more transparent and collaborative federal government, based on this experience, we are left with little more than a fuller understanding of why so many Americans distrust their government.

Sincerely,

Chairman
Stephen D. Little
President
Crouse Corporation
Paducah, Kentucky

Vice-Chairman
Daniel T. Martin
Senior Vice President & Chief
Commercial Officer
Ingram Barge Company
Nashville, Tennessee



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Participants to the Inland Marine Transportation Investment Strategy Team

NAME	ORGANIZATION
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Eric Braun	U.S. Army Corps of Engineers
Rick Calhoun	Cargill Marine and Terminal, Inc.
Larry Daily	Alter Barge Line, Inc.
John Doyle	Jones Walker
Anthony Dunams	Booz Allen Hamilton
Michael Ensch	U.S. Army Corps of Engineers
James Fisher	U.S. Army Corps of Engineers
William W. Fuller	U.S. Army Corps of Engineers
Sandy Gore	U.S. Army Corps of Engineers
David Grier	U.S. Army Corps of Engineers
Jorge Gutierrez	U.S. Army Corps of Engineers
James Hannon	U.S. Army Corps of Engineers
William Harder	U.S. Army Corps of Engineers
Andy Harkness	U.S. Army Corps of Engineers
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Steve Jones	U.S. Army Corps of Engineers
Michael Kidby	U.S. Army Corps of Engineers
Jerry Knapper	Ingram Barge Company
Mark Knoy	AEP River Operations LLC
Stephen Little	Crouse Corporation-
Gary Loew	U.S. Army Corps of Engineers
Cornel Martin	Waterways Council Inc.
Daniel Martin	Ingram Barge Company
Jeffrey McKee	U.S. Army Corps of Engineers
Deane Orr	Consol Energy
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Timothy Parker	Parker Towing
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Jose E. Sanchez	U.S. Army Corps of Engineers
Mary Anne Schmid	U.S. Army Corps of Engineers
Ty Thomas	Ian Inc.
Major General Bo Temple	U.S. Army Corps of Engineers
James Walker	U.S. Army Corps of Engineers
Wesley Walker	U.S. Army Corps of Engineers
Royce Wilken	American River Transportation Company
Matthew Woodruff	Kirby Corporation

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Mr. GIBBS. Mr. Little, can you give us a little synopsis of what the feedback was from the administration, their disregard or not supportive of the industry's recommendations for the—

Mr. LITTLE. Right. Chairman Gibbs, after we had worked at the Corps' invitation for 18 months in developing this capital development plan, we read the letter from Secretary Darcy to Congressman Oberstar, soon to be leaving Congress, Congressman Oberstar, in which she laid out the administration's views at that time.

We were disappointed that we had made this effort and worked so hard in developing this plan at the Corps' invitation to hear a response like that, read a response like that. And it was contrary to some of the positive things we were hearing from the Corps and the administration about how what we were developing, they thought, could be a model for how other programs could be reformed and made more efficient. So we were very shocked and disappointed in it.

Mr. GIBBS. Ms. Darcy, I suppose you want to respond. Why weren't you and the administration supportive of the plan?

Ms. DARCY. I think a lot of the reasons are explained in the letter to Chairman Oberstar. But overall, there was a great deal of change in the cost sharing, a great deal of the payment would be put back on the Federal taxpayer.

Mr. GIBBS. I'm curious. Why didn't you respond directly to the inland waters board? You responded to former Chairman Oberstar, but you didn't respond directly to the board, is that correct?

Ms. DARCY. Not in a letter, sir, no.

Mr. GIBBS. OK. So there was no written response from you to the users board?

Ms. DARCY. No, sir.

Mr. GIBBS. OK. I've got one last question I will open up to the panel. I think there was a lot of discussion today about the infrastructure and that, but what's the—anybody want to respond to what the likelihood of a failure is, and what would be economic—or just consequences, in general?

I don't think you can answer the likelihood of a failure, but if there is a failure what would be the consequences to the grain industry?

Mr. EBKE. Well, I think what we look at is the effect that Katrina had on the system. And I think we had—at one point were looking at doing some studies, and I don't have those. If we have those, I could certainly pass them forward. But I think Katrina showed us that things, as far as the grain impact, significant bottleneck, the railroads had to try to take the slack up, you know, find a place for the grain to go, keep the system functioning. So it was pretty dramatic.

Mr. GIBBS. I would like to follow up, I'm going to follow up to the panel again with my question, to put a little bit more to it.

I know the President—I think it was in a State of the Union—wants to double exports, I think, in 5 years. Couple with that failure. Do we have the capacity to be able to do that? So you can put all that together in one whole question. Mr. Little?

Mr. TOOHEY. Well, one thing to be aware of, you know, all of the fuel that goes into western Pennsylvania comes by waterway. It is manufactured at Catlettsburg, Kentucky, shipped on the water-

ways, 300,000 barrels of petroleum product a day. All of the fuel that goes into the UPS package service system at Louisville, where they take cargo and then move it on, totally dependent on the waterways.

So, a failure of any of the locks between Catlettsburg, Kentucky, and Louisville, or any of the locks between Catlettsburg, Kentucky, and Pittsburgh will eliminate the opportunity to have petroleum products in that region, because that is such a critical asset, such a critical asset that in—during World War II, the Federal Government came to Ashland Oil and said, “We want to build a secure aviation facility if you will run it.” They did.

All of the fuel use in the aviation—the air campaign in Europe was manufactured at Catlettsburg, Kentucky, and shipped down the inland waterways. All of the classified programs, one of which now you can talk about, SR-71, fuel manufactured at Catlettsburg, Kentucky. Why? It was a secure, national defense facility. That is why we recognize our national defense component of the waterways. There is no cost-sharing for that. That is a 100 percent Federal responsibility. That is not Mr. Little’s responsibility, or any other carrier’s. Vital to the national defense.

But we don’t know that. We forget that. It is invisible today, some of it for strategic reasons. But it is there for a purpose.

Mr. GIBBS. Mr. Little.

Mr. LITTLE. And, Chairman Gibbs, also to your first question, I believe that the administration is looking at some of the impact to perhaps catastrophic failure in certain places. We talked about Olmsted.

There is another big project out there that is not getting funding, and that is the Lower Monongahela project. It is 100 years old. And I believe, based on what I have heard, that the administration is looking at just the energy impact if there is a catastrophic failure there, which will be a tremendous impact. So that is one area that needs to be looked at, and we need to learn more about what they’re finding there.

As to your question as to capacity, yes. If we can put more cargo on the waterways, we have the infrastructure capacity out there to move more products. And, of course, that is the most environmentally friendly, safest mode of transportation, so we should be looking to do that.

Mr. GIBBS. Mr. Ellis.

Mr. ELLIS. Yes, Chairman Gibbs, just replying to your initial question about the impact. And obviously, a lot of it depends on where it is. So, you know, if you look at Katrina, which impacted New Orleans, which is basically the exit for all of our international commerce coming down the Mississippi, it is going to have a huge impact everywhere, all the way through the system.

If it is at the Monongahela, near the end of the Ohio system, it is going to have a different impact. And certainly Mr. Toohey pointed out that there were the impacts, in that stretch—on the Ohio River. So a lot of it is going to depend on where this actually happens.

I would also point out, though, on the Ohio, the vast majority of the projects that are going on there are about—there already is a 1,200-foot lock, and there is a second lock, a 600-foot lock, that they

are trying to make 1,200 feet. So it is 100 percent redundancy that they're trying to have there. So it is not like you still couldn't get through in many of these places, you know, unless there is a catastrophic failure across there.

And then, the only other thing I would point out about the cost sharing and the Federal Government, you know, national security, the Federal Government—by far, the biggest expense in the inland waterway system is operations and maintenance. Right now, that is 100 percent Federal. That isn't cost-shared at all. And so, the Federal Government is certainly well represented in providing its cost share. And also, 50 percent of any of these projects are being paid for by the Federal taxpayer.

So, I mean certainly there is other uses and other beneficiaries, but that is being picked up through the taxpayer.

Mr. GIBBS. Mr. Bray.

Mr. BRAY. It is the Mississippi River that has no redundancy.

Mr. GIBBS. Pardon? Say again.

Mr. BRAY. It is the Mississippi River who has no redundancy. And failures of any of those projects, within certain driving distance of St. Louis—of course, the option is trucking. Many of those farmer in that area don't get rail service now because of the rail Staggers Act. And the roads up there aren't good, really, the secondary roads.

And so, that is one big impact you're going to see, is this shift to more and more trucking. And that was one thing I was talking to them about Lock and Dam 18. What did they think would happen if Lock and Dam 18 closed, because there are three big grain shippers in that pool, and what would the farmers do? They'd probably truck on to St. Louis.

Mr. GIBBS. Yes.

Mr. BRAY. Go ahead.

Mr. GIBBS. Mr. Little.

Mr. LITTLE. I just wanted to address the redundancy comment on the Ohio River, because there are twin locks at many locations on the Ohio River. In many places, that is a 1,200-foot chamber and a 600-foot chamber. So at Markland Lock, which is in between Cincinnati and Louisville on the Ohio River—in fact I just drove across that lock on Monday and looked at it—there is work being done now on the 1,200-foot chamber. So that chamber is closed. All the traffic is going through the 600-foot chamber.

Annually, that passes about 58 million tons a year. The delays there are averaging 33 hours. That work began in July and is not scheduled to be completed until November. So, by my estimates, kind of the back-of-the-envelope estimate, which I think is pretty close, just to the industry I expect that cost to be over \$40 million in delay costs, which will eventually, one way or the other, get passed on to the consumers.

Mr. GIBBS. I just want to, Secretary Darcy, follow up quick. It is sad, just coming on in the Congress and seeing the \$800 billion or so stimulus spent, and you say \$400 million of it was for the infrastructure, you're going to supply me with a specific list of the projects, so we know what's going on—and then the President just talked about—I think you said in your testimony he is going to come in a week or so with more specifics, and—but he didn't out-

line any major investment expenditures into the inland water system until just, basically, when we called this hearing, I believe.

So, could—you have any specifics you could tell us how—where the money is going to come from, or do you have any idea what the plan is?

Ms. DARCY. The plan that the President announced on Monday is to have a user fee, in addition to the current diesel fuel tax. And, as I said, the specifics are forthcoming, but it would be a users fee that we hope would generate about \$1 billion over 10 years.

Mr. GIBBS. OK. Is there any more? Go ahead, Representative.

Mrs. NAPOLITANO. Thank you, Mr. Chair. Ms. Darcy, can you tell me—this is a little bit different, because I look at all things—the annual cost to the taxpayer of the Inland Waterways Users Board, and from which account does it come from?

Ms. DARCY. It comes from our account. I would have to get back to you. It is something like—\$60,000 sticks in my head, but that is just a guess. I would have to get you—

Mrs. NAPOLITANO. For the board?

Ms. DARCY. For the board, correct.

Mrs. NAPOLITANO. My figure is \$895,000.

Ms. DARCY. That—I would—

Mrs. NAPOLITANO. A little different.

Ms. DARCY. It is a little different, and I just don't know.

Mrs. NAPOLITANO. Right, I know. But that may be one of the things we may want to look at—

Ms. DARCY. OK.

Mrs. NAPOLITANO [continuing]. To see which expenses can be reduced to be able to save the taxpayers some money.

Ms. DARCY. OK.

Mrs. NAPOLITANO. Mr. Ellis?

Mr. ELLIS. I was just asking, because we had looked at this. And I believe in the Federal—in the fiscal year 2012 budget there was \$850,000 set aside, requested in the budget request for fiscal year 2012 for the Inland Waterways Users Board.

Mrs. NAPOLITANO. So it is quite a chunk of money.

Now, the other thing that is just really a comment, more than anything, in many of the areas that I have served here in Congress, we look at our—ignoring the basic tenements of infrastructure repair and maintenance, the O&M. Sometimes we put it on the user, sometimes we put it on the private owners, whether it is dams in other areas. But I believe that there is some discussion and dialogue ongoing—and hopefully the President—I believe he also mentioned it, to develop an infrastructure bank to be able to assist those entities that are not able to fund their own, to be able to borrow it, whether it is a low-interest rate, or whatever.

But I can tell you in my subcommittee the—in dams, rivers, in canals and everything else that we have, I think we need to begin to look at it. When you have water leaks, they use up more than 50 percent of the water, potable water. And we are running into drought cycles throughout the United States. It is imperative we begin to look at how do we help the communities face these things. So, that is something else.

And, Mr. Chair, I have other questions that I will submit for the record. Thank you very much.

Mr. GIBBS. Thank you. I want to thank all the panelists for coming. And I think it is quite evident we have a lot of work to do. And make sure we enhance our inland water system, and I think my personal prerogatives are really focused on projects that are specifically important to moving commerce and growing our economy and creating jobs. And so I look forward to working with the administration and the private sector to accomplish that. So that concludes this hearing today. Thank you.

[Whereupon, at 12:12 p.m., the subcommittee was adjourned.]



STATEMENT OF
THE HONORABLE JERRY F. COSTELLO
SUBCOMMITTEE ON WATER RESOURCES
HEARING ON "THE ECONOMIC IMPORTANCE AND FINANCIAL CHALLENGES OF RECAPITALIZING
THE NATION'S INLAND WATERWAYS TRANSPORTATION SYSTEM"
SEPTEMBER 20, 2011

- Mr. Chairman, thank you for holding today's hearing to discuss the status and proposed modifications to the Inland Waterway's Trust Fund.

- Our water infrastructure projects are in need of repair and passing a Water Resources Development Act (WRDA) bill or a surface transportation bill with a maritime component is exactly the kind of job creation legislation our economy needs to get people back to work.

- I have urged the President several times to make our locks and dams, levees, and inland waterways a priority because these projects will have direct and immediate benefits in the form of jobs and economic activity. Further, these investments would also result in many additional long-term benefits for economic competitiveness. Therefore, I was pleased President Obama included inland waterways projects as a component of the American Jobs Act. The U.S. Army Corps of Engineers estimates that for every \$1 billion invested in navigation and ecosystem restoration projects, 30,000 – 35,000 jobs are created.

Lock upgrades to the Upper Mississippi and Illinois Rivers alone would require hundreds of construction jobs from skilled trades throughout the Midwest.

- We all agree that there is a problem with the Inland Waterways Trust Fund. I commend the work of the Corps, the Inland Waterways User Board and other stakeholders for coming together to develop a comprehensive plan, known as the Inland Waterways Capital Development Plan. More than 200 organizations support this plan. I encourage my colleagues to consider including it or at a minimum use it as a basis for an ongoing discussion in the next WRDA or infrastructure development proposal because it takes the necessary steps forward to address the Trust Fund issue and will modernize our water infrastructure system.

- I look forward to hearing from our witness panel.

SENIOR DEMOCRATIC WHIP
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CHAIR, 107TH CONGRESS



Eddie Bernice Johnson
Congress of the United States
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Opening Statement of Congresswoman Eddie Bernice Johnson

T&I Subcommittee on Water Resources and Environment Hearing on:

“The Economic Importance and Financial Challenges of Recapitalizing the Nation’s Inland Waterways Transportation System”

September 21, 2011

I would like to thank Chairman Gibbs and Ranking Member Bishop for holding this hearing today regarding the economic importance and financial challenges of recapitalizing our nation’s inland waterways transportation system.

Considering that the nation’s inland waterways transportation system is comprised of 25,000 miles of navigable waters with nearly half of that managed by the Corps of Engineers, and the nearly 630 tons of annual cargo that is moved on the fuel taxed Inland Waterway System (IWS), it is important that Congress and our committee review what improvements can be made and what challenges lay ahead.

Like much of the United State's transportation infrastructure, the navigational infrastructure of the Inland Waterway System is aging and in need of modernization. ~~As we stand here~~ Today, 54% of the Inland Waterway System Structures are more than 54 years old, 36% are over 70 years old.

In addition to the outdated structures of harbors, locks, and dams, there are also the operational challenges of maintaining channel depths, flood control, water management, and water supply that have fallen woefully behind the times.

The Inland Waterway Trust Fund (IWTF) which supports these structures and operations is funded by twenty cents per gallon fuel tax on commercial operators and is in serious need of modernization. I appreciate all of here today ~~that~~ ^{that are who} are committed to working toward that goal.

The future of our inland waterway transportation system is too important for our economic future to be sunk by partisanship. As the former Chairwoman of this subcommittee, I am hopeful we can approach this issue in a bipartisan and responsible manner.

Oral Testimony

Subcommittee on Water Resources and Environment Hearing

The Economic Importance and financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System

September 21, 2011

Dr. Larry G. Bray

My name is Dr. Larry G. Bray. I am a Research Professor and Faculty member at University of Tennessee's Center for Transportation Research. I am retired from approximately 30 years of service at the Tennessee Valley Authority (TVA) with most of time spent in water management. I am the outgoing chairman of the Inland Waterway Committee of the Transportation Research Board. During my years at TVA, I participated in navigation studies including the Chickamauga Lock replacement project and the Kentucky Lock new main chamber project. I recently co-authored a paper for the Nick J. Rahall II Appalachian Transportation Institute entitled "Toward A Full Accounting of the Beneficiaries of Navigable Waterways" (Beneficiaries Paper) which I think is relevant to this Hearing.

The U. S. navigable waterway system is vast and carries large amounts of cargo. During calendar year 2008, all types of commercial barge transportation carried freight totaling 956.3 million tons, of which the inland system tonnage totaled 588.5 million tons. In 2002 (the latest year available) commercial barge transportation represented about 8.6 percent of total tonnage shipped in the nation and about 11.0 percent as measured by ton miles. The value of barged cargo can be conservatively estimated at \$124 billion. It provides significant benefits to industry and others that use the water in the navigation pools; however funding has not been sufficient to adequately maintain, operate, and upgrade the aging system. For decades, operations and maintenance (O&M) funding from the U.S. Treasury has declined in real terms, and funds for new construction have been limited, due in part to the inadequacy of the 20 cent per gallon tax levied on fuel consumed on fuel taxed waterways that has remained unchanged since 1995.

While failures of system components have not been frequent, failures are increasingly likely because navigation locks have a designed life of roughly 50 years, and 57 percent of them are now over this age. Some projects are in better shape than others. Take Lock and Dam 18 for example. Located in Gladstone, Illinois, the project handled 24 million tons of traffic in 2007. However, the dam is plagued by alkali silica reaction which causes the concrete to spall. The dam is actually moving as can be seen the in warping of the rail tracks and hand rails. The personnel platforms have been relocated due to the fear that they will detach from the dam and spill workers into the river. At Chickamauga Lock and Dam on the Tennessee River above Chattanooga, Tennessee, the problem is aggregate alkali reaction which also causes the concrete

to move. According to TVA engineers, the project has a finite life and will eventually need to be closed. This could happen before the replacement lock is completed.

Let's summarize the benefits to those who rely on the navigation channel.

1.1.1. Navigation Shipper Savings

In 2006 the Tennessee Valley Authority (TVA), on contract to the USACE, undertook a contract to estimate the savings that accrued to shippers in the Ohio River Basin (ORB). TVA found that ORB shippers saved \$3.1 billion in 2006 for a selected sample of shipments. The shipping and receiving companies included electric utilities, steel producers, chemical and petroleum companies, minerals shippers, and many other barge transportation users. For the U.S., at an estimated \$12 per ton shipper savings value for the entire U.S. inland river system, a rough estimate of recent annual national transportation shipper savings is \$7.0 billion.¹

1.1.2. Economic Impacts from Commercial Navigation

In the Ohio River System (ORS) the navigable channel contributes a present value of \$497 billion in sales to the nation and 80,000 in annual employment. This yields an annual impact of \$20.5 billion. The positive impacts are not confined to the Ohio River and tributaries. The navigable channel generates benefits well beyond this boundary through regional trade and, particularly as power rates, impacted by low cost transportation on the navigable streams, extend throughout each utility's power service area. The power system of these utilities is so vast that customers in over 829 counties benefit from transportation on the navigable ORS.

1.1.3. Cooling Power Plants

Although not included in the ORS impact estimate, power plants on navigable rivers, in some instances, enjoy water supply and temperature control advantages. Older steam electric power plants typically use once-through cooling systems in the electric generation process.² Water is taken from the river, passed through the plant's cooling system, and returned to the river at a higher temperature. If all of the power plants currently operating with OTC on the navigable river channels had to convert to cooling towers, the cost over 50 years would be \$22.4 billion.

1.1.4. Hydropower Capability

The Corps reports that 75 hydro plants and 350 generating units produce 21,000 MW of capacity, representing 24% of total national hydropower generation. These units generate approximately 70 billion KWH of energy annually, enough to meet the electricity demands of 30 cities the size of

¹ This estimate was made by the study team's member, Chris Dager, who estimated these values for the USACE over the last 15 years.

² Gies, Erica, *New York Times*, May 17, 2010: Although fallen out of favor, 43% of U.S. thermoelectric generation capacity is once-through cooling. This type of cooling is an inexpensive energy-efficient process that requires large volumes of water from stable pools of sufficient depth.

Seattle, Washington. This system generates over \$4.0 billion in gross annual revenue.³ TVA reports a hydro power production of 14.0 billion kilowatt hours. The production data from non-federal dams east of the Mississippi River is maintained by FERC and not published. Corps of Engineers hydro power data omits this production and value.

1.1.5. Flood Damage Avoidance

In 2008, flood control benefits reported by the Corps of Engineers totaled \$10 billion on all rivers but the Tennessee; TVA reported as savings of \$230 million on that river.^{4,5}

1.1.6. Sewerage Treatment

Most of the system's navigation dams and locks are very old, and thus most waste water treatment plants located in these navigation pools were built with the expectation of a minimum nine foot deep channel. Assuming that something happened to compromise these navigation channels, new channels might be required from the main river to the water intakes which would be constructed at considerable expense. Treatment cost would also rise due to increased turbidity which could affect taste and odor.⁶

Lower water volumes require the costly removal of the so-called fertilizer components of the processed liquid material. Absent existing navigation support structures, waterways operated for other purposes would result in lower flow and require that chemicals such as ammonia, nitrogen, and phosphorus be removed prior to water treatment plant discharge.⁷

1.1.7. Water Supply

Of the 72 federally owned locks and dams on the Ohio River system, 63 have pools with active water intakes. In these navigation pools in the year 2008, there were 388 active intakes withdrawing water for consumptive and non-consumptive use. The amount of water withdrawn was 23.3 billion gallons. Water supply plants are designed and constructed to account for the minimum flows that existed there at the time of construction.

Industrial water intakes could be compromised with a loss of navigable channel. Considerable expense could be required to reposition intakes given a loss of the navigation channel, and it is

³ U. S. Army Corps of Engineers, Hydropower Business Line FY 2011 budget Brief for Ms. Jo-Ellen Darcy, Assistant Secretary of the Army (Civil Works), 28 August 2009, Tennessee Valley Authority 10-K Annual Report, November 25, 2009.

⁴ Mr. John Hunter, senior hydraulic engineer, U. S. Army Corps of Engineers and TVA River Scheduling Group, "Flood Reduction Benefits".

⁵ TVA River Scheduling Group, 2007.

⁶ Mr. Ted Tyree, Manager, Kuwahee Sewerage Treatment Plant, Knoxville, Tennessee, November 2, 2009

⁷ Ibid

possible that certain industries would be forced to close or relocate given a lowered minimum depth in the channel proximate to their water intake. Discharge permits could also be affected in such a circumstance.

1.1.8. Property Values

Using equations developed at TVA, loss of the entire nine foot navigation channel in the Fort Loudoun Reservoir alone could result in a loss of \$1.12 billion in lake front property values. This equates to 34 percent of the value of this property.

1.1.9. Congestion and Safety Impacts

In virtually every case, the fuel consumed and pollutants emitted through a barge-inclusive freight routing compete favorably with fuel and emissions for competing modes and in the majority of cases, commercial transportation is measurably superior. In terms of ton-miles per gallon, the three modes rank as follows – barge: 525, rail: 424, and truck: 100. As a consequence, barge freight movement often measurably benefits air quality.⁸ At Emsworth, Dashields, and/or Montgomery locks in a moderate traffic growth rate scenario, a 180-day closure duration results in societal costs (including congestion and health costs) that begin at \$3.45 per ton and reach \$12.90 in the 51st year. In a higher growth (1.6%) traffic scenario, however, the social cost of traffic diversion reaches \$46.54 per ton, reflecting the severe impact that greater highway congestion can cause.

1.2. Recreation

Last, let's talk about recreation. It is not possible with current data to determine precisely how lack of the navigation system would affect recreation nationally. What can be said, however, is that 382,523 recreation vessels passed thorough navigation locks in 2009. These vessels were processed in 147,679 recreational lockages. This is often an enjoyable experience for recreation boaters, and the Corps of Engineers allows these boaters access to the locks with no lockage fee. The deep navigation channels provide an excellent venue for pleasure boats, some of which have a fairly deep draft.

Additionally, considering all Corps of Engineers recreational facilities, more than 372 million person-trips across the nation occurred in 2006. In that year, visitors to these lakes spent \$18 billion on trip expenses and durable goods. Considering both these direct expenditures and the associated indirect economic impacts, visitor spending supported more than 250,000 jobs and \$16 billion in the value added generated.⁹

Again, thank you for the opportunity to appear here today.

⁸ In small number cases the circuitry of line-haul barge routes and / or longer associated truck legs, produce outcomes in which all-rail routings are more fuel efficient.

⁹ U. S. Army Corps of Engineers, Natural Resources Management Gateway, Institute for Water Resources. Assuming that these recreational expenditures would have been made for alternative activities, they represent yet another form of "regional" economic impacts.

Prepared Remarks

Larry G. Bray

Center for Transportation Research
The University of Tennessee

Presented before:
The United State House of Representatives
Transportation and Infrastructure Committee
Subcommittee on Water Resources and Environment

September 2011

Introductory Comments and Summary

For more than a generation, I've studied and described the importance of commercial inland navigation to the US economy. Today, by virtue of the Committee's invitation, I again have an opportunity to discuss this topic: My appearance here leaves me both humbled and energized. To those who have helped bring me here, particularly Chairman Mica, Congressman Rahall, and Subcommittee Chairman Gibbs, I offer my sincere thanks. Finally, to my Congressman, Representative Jimmy Duncan from Tennessee's Second District I wish to say thank you for the many years of leadership and service you've provided East Tennessee.

This morning, I hope to make four points. First, at this very moment, inland barge transportation is functioning as an essential element within our nation's system of freight transport. The navigation industry's history is long and storied. Similarly, navigation's potential value to forward-looking commerce is important. However, neither topic should obscure the fact that, today in 2011, barge transportation fills important freight mobility needs that would, otherwise, be costly or even impossible to address.

Second, the capacity and flexibility afforded by inland barge transport *is* important to the United States as we look to the future. With regard to global commerce, inland navigation can safely connect interior cities and regions to international markets, adding to the interior's prosperity, while reducing the congestion and environmental challenges faced by coastal regions. At the same time, available inland navigation (much like truck-rail intermodal transport) can, everywhere, play an increasingly important role in segregating the most disruptive freight movements from those passenger activities necessary to personal mobility and livable communities.

Unfortunately, much of the infrastructure that currently sustains barge transport has aged beyond its design life. It requires renewed federal investment if navigation is to continue its current role and be available as an even more productive future resource. The monolithic nature of the locks, dams and other required structures, the Herculean efforts of those who maintain them, and the geographic isolation of most such facilities has hidden their deterioration from the public, but this lack of visibility does not diminish the threat that chronic underinvestment now poses to the inland navigation system.

Finally, in an era of fiscal scrutiny, I wish to make clear that federal investments in transportation infrastructures like those represented by the nation's navigation system remain an economically justified and theoretically sound form of government intervention into, otherwise, freely functioning transportation markets. Assuming that the fiscal responsibility of reinvestment is appropriately apportioned between *all* those who benefit – both directly and indirectly – from available inland navigation, the federal government's share of this responsibility will represent a prudent and equitable expenditure of public funds.

The balance of my remarks expand on these four points.

Does Inland Commercial Navigation Play a Meaningful Role in Twenty-First Century Freight Transportation?

The current economic value of inland barge transportation falls into four distinct categories (1) the highly efficient and affordable movement of traditional bulk commodities such as coal, grain, stone-based aggregates, metallic ores, and chemical products, (2) the vastly less expensive movement of oversized and overweight shipments that cannot be moved by either truck or rail, (3) the competitive influence that available commercial navigation has on the rates available to rail shippers, and (4) the indirect benefits that navigation provides in terms of environmental outcomes and concurrent uses of navigable inland waterways. I briefly discuss each of these in turn.

Moving Bulk Commodities

In a normal year on the inland waterway system between 500 and 700 million tons of bulk commodities with a current approximate value of nearly \$125 billion are moved an average of roughly 500 miles to produce in excess of 300 billion ton-miles of freight transportation.¹ Given that freight shippers choose barge transport over other modal alternatives, it is safe to assume that *every* bit of this freight traffic moves at a total supply-chain cost that is lower than what would, otherwise, be available.² Work that I and many of my colleagues have done in conjunction with the US Army Corps of Engineers suggests an average shipper savings of \$12 per ton, so that barge shippers and their customers save more than \$7 billion annually.³

¹The representative tonnage and distance figures reflect averages for the period 2005 -2009. The commodity value figure is based on a 2002 US Army Corps of Engineers figure of \$86 billion that was subsequently adjusted to 2010 dollars by use of the Producer Price Index's aggregated producer commodity component.

² It is often necessary to include more comprehensive inventory management costs along with actual transportation charges in order to understand the transportation choices made by shippers.

³ The per-ton savings is based on an average of the savings computed for the upper Mississippi River (2007) and the Ohio River main stem (2010). The highly aggregated values obscure the sometimes dramatic shipper savings yielded by available navigation. Indeed, in many cases, the cost of shipping by an alternative mode or modal combination is sufficiently high to preclude any movement at all in the absence of barge.

While most residents don't directly observe the shipper savings that inland barge transportation produces, they enjoy the consequences of these savings in the form of lower product or service prices. For example, a recent University of Tennessee study of coal traffic on the Ohio River and its tributaries suggests that electricity users within the region save millions annually on electricity purchases by virtue of barge transport. When this savings is extended to reflect its overall economic impact on the region, the UT study estimates that the barge movement of coal and correspondingly lower electricity rates is responsible for more than 75 thousand jobs and over \$2 billion in annual incomes within the region.⁴

Oversized Shipments

Inland barge transportation is also a valuable means of moving overweight or over-dimensional shipments. Example include massive generators used in both steam-powered and nuclear generating facilities, extremely large bridge components, rocket engine boosters and other aerospace components, windmill blades and turbines, and uncategorized military equipment.⁵ In some cases, there are no feasible alternatives to inland navigation, so that the location of activities is wholly predicated on available barge transport. In other cases, modal alternatives, while physically feasible, involve the construction (or reconstruction) of roadway and railroad facilities at tremendous cost for what is often a one-time use. In either case, it is difficult to assign a dollar value on the availability of navigation. Hence, the true value of these inland barge movements is obscured, seldom counted, and almost never incorporated into the benefit-cost calculations used to evaluate infrastructure construction and maintenance costs.

Competitive Influence for Railroad Freight Movements

Not everything that can move on the inland waterway system does so. However, there is overwhelming evidence that even when railroad carriers retain traffic that could move by barge, they do so only by competing with the available barge rate(s). Thus, the railroad prices observed as result of this navigation influence are typically referred to as "water-compelled" rail rates. Estimates across various regions where navigation is available suggest that these competitively enforced transportation rates yield shipper savings of several billion dollars annually.⁶

There are a number of interesting aspects related to the competitive relationship between rail and barge. First, federal transportation policy is aimed at assuring effective competition among largely deregulated freight transportation providers. Thus, in an environment where railroad competition is a perennial concern, available navigation dampens the arguments of those who advocate renewed railroad rate oversight. Also, the degree to which railroads are sensitive to a water alternative provides a good gage of available railroad capacity. In the early post-deregulation period, when ample railroad

⁴ Bray, Larry G. and C. Michael Murphree, "An Evaluation of the Potential for Commercial Navigation to Additionally Contribute to Freight Transportation in the Tennessee River Basin," Tennessee Department of Transportation and the Nashville District of the US Army Corps of Engineers, January 2011.

⁵ Recent examples of over-dimensional shipments include a six-barge movement of a complete (but disassembled) from its manufacturing location in Korea to a destination near Sioux City, Iowa via the Mississippi and Missouri Rivers or the 2009 movement of wind turbine assemblies and towers from their manufacturing locations in China and the Netherlands.

⁶ See, for example, Burton, Mark L., "Rail Rates and the Availability of Barge Transportation: The Missouri River Basin," U.S. Army Corps of Engineers, Omaha, Nebraska, 1996.

capacity was available, rail carriers were very sensitive to available navigation in the prices they charged. However, as rail traffic continued to grow through the mid 1990s and railroad capacity became scarce, available rail rates became far less responsive to a barge alternative.⁷

Avoiding Negative Externalities and Securing Benefits to Other Waterway Users

Most goods and services are produced and consumed so that only those involved are affected. This is not true of transportation. The production of freight transport necessarily involves traversing space – space that is routinely occupied by thousands of people who have no direct connection to the freight or its movement except for their proximity. These people are “external” to the transaction that produced the freight movement and any negative outcomes they suffer are called “negative externalities”. Freight produces many of these – diminished air quality, roadway congestion and delay, noise pollution, and increased exposure to hazardous materials. However, across transport modes and externality categories, commercial navigation is the least offensive. With the exception of recreational waterway users, very few people are ever close to barge transportation. Railroads are more intrusive and motor carriage is much more so.

The reduced incidence of negative externalities is a tangible benefit of commercial navigation that is easily recognized, but seldom counted within decision-making processes. Ostensibly, this is because of the uncertainties involved in accounting for the value of reduced exposure to unpleasant outcomes. It is, in fact, a difficult area in which to assign reliable numbers. Still, to ignore the environmental or other quality of life improvements associated with a greater reliance on inland transport also assures getting the wrong policy answer.⁸ I, along with many of my colleagues, have worked for more than a decade to remedy this problem, but have achieved only modest progress.

The final source of economic value attributable to commercial navigation on the inland waterways is one which we have only recently begun to treat empirically. Waterways that support commercial navigation also support a number of other uses that include hydro-electric power generation, cooling for other means of electricity generation, municipal and industrial water supply, personal recreation, crop irrigation, and regional flood control. Almost without exception, these other uses are enhanced by the maintenance of a navigation channel and the operation of the structures that support it.

Historically, these “other beneficiaries” have, more often than not, been asked to pay fees as a result of their waterway use. However, very little has ever been done to quantify the magnitude of benefits they enjoy or to ensure that fee payments at least cover the system costs that are incremental to their codependence on the maintenance of predictable channel depths or rates of flows.⁹ To date, only navigation users have been asked to demonstrate that their economic contributions are aligned with system expenditures.

⁷ See Burton, Mark L., and Wesley W. Wilson, “Network Pricing: Service Differentials, Scale Economies, and Vertical Exclusion in Railroad Markets,” *Journal of Transport Economics and Policy*, May 2006.

⁸ See, “Surface Freight Transportation: A Comparison of the Costs of Road, Rail, and Waterways Freight Shipments That Are Not Passed on to Consumers,” US Government Accountability Office, January 2011.

⁹ In a purely economic setting, payments that are less than any associated incremental cost would constitute a cross-subsidy by other users whose contributions meet or exceed this minimal threshold.

Summarizing the Current Economic Value of Inland Waterway Commerce

The use of inland waterways to support freight transportation saves shippers (and their customers) billions of dollars annually. Moreover, in some cases, the freight that moves by water cannot be moved any other way. In these cases, the value of available barge transportation is literally incalculable. Beyond these seemingly obvious benefits, inland navigation also provides competition that helps discipline railroad pricing. This, in turn, diminishes the need for federal railroad oversight. Next, increased reliance on barge transportation reduces the incidence of most negative externalities, thereby, providing uncounted benefits to populations that are exposed to fewer of the "bads" commonly associated with moving freight. Finally, maintaining a navigable waterway channel makes waterways more useful for other purposes. Many, perhaps even most, of these other beneficiaries do pay for this benefit, but their required contributions would almost certainly increase in the absence of waterborne commerce.

Could Expanded Railroad Service Eliminate the Need for Commercial Navigation?

Transportation industry pundits freely use the word "renaissance" to describe the railroad industry changes that have occurred since its deregulation in 1980. From the mid 1980s through the early years of the current century real railroad costs per ton-mile of freight service fell steadily and, in most cases, the rates charged to shippers mirrored cost reductions. During the same period railroads consolidated operations and rationalized networks, trimming thousands of route-miles, while simultaneously investing billions of dollars in the trackage they retained. Unquestionably, in 2011, both the fiscal and physical state of the railroad industry is vastly improved over what existed less than 30 years ago.

I would suggest, however, that in spite of these improvements (or perhaps, because of them), today's freight railroads are neither prepared for nor probably desirous of the traffic moved on the nation's inland waterway system. Several factors support this conclusion. First, many of the largest shippers of bulk commodities – both coal and stone – are at locations that are not (and cannot be) rail-served. For these shippers, the loss of waterborne commerce would simply mean shutdown. In numerous other cases, a switch from barge to rail would require extensive capital investments to create the necessary railroad connections and on-ground storage areas.

Next, there is the issue of both equipment and line-haul track capacity. A wholesale diversion of waterway traffic to the nation's rail network would require roughly 100 thousand additional railroad freight cars and 2,500 additional locomotives.¹⁰ It would also increase total annual railroad tonnage by roughly 33 percent.¹¹ The additional traffic could be readily absorbed on some route segments. On others, however, it would require substantial capacity expansions through the addition of mainline tracks, passing sidings, and signal upgrades. There is no reason to expect that the railroad industry could not accomplish these increases. However, given its self-proclaimed limited ability to raise capital funds, there is no guarantee that this could be done without outside (federal) assistance.

¹⁰ These are representative calculations based on 96 tons of freight per loaded car, five-day freight car cycle times, 2.5 6,000 hp. locomotives per train set.

¹¹ This calculation is based on average annual barge traffic of 600 million tons and 1.8 billion tons of annual railroad traffic (Association of American Railroads).

Additionally, commercial navigation moves a significant amount of tonnage that railroads do not want or simply cannot accommodate. Over the past decade, Class I carriers, lead by CSX, have actively worked to shed their most hazardous chemical traffic, contending that the costs associated with this traffic are simply unrecoverable under anything like current rate structures. The same is also true of less perilous, but equally troublesome cargoes such as salt and asphalt. Finally, the weight and/or dimensions of a small number of waterborne shipments simply exceed anything that can be reasonably moved by any other freight mode – including rail. Again, without the waterway the shipments would simply disappear.

Setting aside all of these considerations, the fact remains that current inland navigation tonnages are on the waterway system based on the preferences of shippers, presumably because waterborne carriage reduces achievable costs. Thus, any forced substitution of railroad transport, where feasible, would, at a minimum; increase costs and diminish the competitiveness of the affected shippers.

Looking Forward, Is There a Meaningful Role for Commercial Inland Navigation in American Commerce?

Many of the facilities that provide for today's inland waterway commerce were designed and built a full generation before diesel power was available for either river vessels or railroad locomotives. Indeed, one of the most daunting challenges in planning for future freight mobility is the extreme longevity of the required structural assets. Today's waterway planners typically work with a 50 year planning horizon. Hence, seeing into the future with as much clarity as possible is required to forecast traffic volumes, alternative transportation costs, and operating conditions. These forecasted values combine to form the project benefits and costs that are used to establish project viability.

Fortunately, within the current context, I can speak more generally about a future that I consider largely unknowable. Armed with this latitude, I focus on a handful of observable trends that seem likely to continue and which have an immediate bearing on the future value of inland navigation in the United States. These include (1) relative stability in the future bulk commodity flows that are the base for today's waterway traffic, (2) increasing and ever more volatile petroleum prices, (3) a continued growth in global trade, and (4) continued increases in environmental standards and the preference given to livable communities. As with earlier material, I briefly discuss each of these factors in turn.

Bulk Commodities, Manufactured Goods, and Future Waterway Traffic Demands

The most basic components of inland navigation traffic are dry-bulk commodities like coal, grain, stone-based aggregates, raw fertilizers, metallic ores, and Portland cement. This traffic is rounded out by a relatively small set of manufactured commodities that includes a variety of chemical and petroleum products, intermediate and finished steel products, and animal feeds.

Unlike many more highly valued goods, the demands for the basic industrial and agricultural products have had a strong international component for more many generations. Thus, prediction of the demand for their domestic transport has long been influenced by global trends in production and consumption. Stepping away from the immediately observable impacts of sometimes pronounced disruptions, the basic international demographic and economic patterns that govern the availability and demand for these goods change very slowly. Thus, when we strip away the fantastic and the short-lived, the fundamental conditions that sustain the demand for inland barge transport within the US are unlikely to change significantly, even over a very long time horizon.

Future Fuel Prices and the Demand for Inland Navigation Capacity

Fuel is basic and in the short-run fuel markets can fluctuate a great deal. Still, in the current context, it is the long-run pattern of fuel availability and pricing that matters most. Forecasts for petroleum prices vary widely, with the severity of projected increases or degree of relative price stability generally correlated to the politics of the forecast-issuing organization. The US Department of Energy's Energy Information Administration provides three long-range price forecasts – a mid-range prediction bounded by high and low forecasted values. The mid-range forecast suggests an increase in inflation-adjusted petroleum prices from \$60 per barrel to \$130 per barrel (117 percent) between the time of the forecast (2007) and the out-year (2030). A moving average of monthly prices observed over the four years since the forecasts' release depicts a trend that is slightly above the mid-range forecast, but well-below the "worst case" projections. In addition to underlying a predicted upward trend in petroleum prices, actual prices observed over the past decade also suggest increased petroleum price volatility. There are a number of available explanations for this volatility, but the most likely seems to lie in a lack of excess production capacity among OPEC members which, in turn, has limited the cartel's ability to dampen rapid spikes in worldwide crude oil prices.

At the simplest level, escalating fuel prices favor inland navigation over other freight modes. The per-ton-mile rate of fuel consumption of waterway vessels is generally lower than a similar figure for railroad locomotives and several times less than the corresponding rate for trucks. This said, a number of factors partially mitigate navigation's advantage in this area.¹² Even so, this advantage seems likely to persist for the foreseeable future.

Continued Growth in the Domestic Importance of Global Trade

As a young economist studying at the University of Tennessee, I recall a time when the percentage of US GDP tied to international trade was less than 10 percent. The latest data suggest a corresponding figure for 2010 of approximately 30 percent and the share of US economic activity tied to global markets is projected to reach as high as 50 percent by the current century's midpoint. A number in my profession have eloquently recounted the sequence of events that is producing the steady growth in international commerce. However, virtually every author includes substantial reductions in global transportation costs as a key factor.¹³

In the US, as elsewhere throughout the world, the growth in international trade has lead to observable changes in land-side commodity flows and lane-specific freight volumes, as increasingly large volumes of traffic move longer distances to and from deep draft ports. However, unlike other parts of the world (China, Europe, and Brazil), globally-induced traffic growth on US inland waterways has been constrained primarily to bulk commodities. In the US the containerized movement of finished goods and semi-finished products is almost exclusively by rail and truck.

¹² The primary factor has been the railroad industry's rapid compliance with federally mandated fuel efficiency standards – standards that have demanded greater fuel economy improvements for locomotives than similar requirements for marine engines.

¹³ Other often cited factors include the opening of the Chinese and former Soviet economies to international trade and the rapid growth in communications capabilities that allows the nearly instantaneous and precise management of product inventories across great distances.

There are numerous reasons that explain the absence of container shipping on US waterways. These include the traditional dominance of container routes to and from the west coast, the early capacity of US railroads to immediately absorb the growth of containerized traffic and the relatively slow transit times provided by inland barge transportation. The pressing question is whether these short-run factors will continue over the long-run or whether gradual adjustment will eventually draw US inland shipping into the arena in which international containers are moved.

To some extent, these underlying factors have already begun to change. Traditional West Coast-inclusive container movements will remain important, but ongoing improvements to the Panama Canal have led to generally accepted predictions that future container traffic growth will favor East Coast and Gulf Coast ports. Moreover, a significant share of this growth may involve north-south traffic between US Gulf coast ports, interior US locations and origins and destinations in both Canada and Mexico.¹⁴ Also, the excess rail network capacity evident in the 1980s and early 1990s has largely evaporated. US Class I railroads continue to add intermodal capacity as fast as available financing will allow, but there is concern that a rebounding economy and resulting resumption of intermodal traffic growth will absorb nearly all newly-created capacity within a short period of time.

The factor that has yet to be addressed is the relatively slow transit times available on the US inland navigation system. In the US, attempts to move international containers over water-inclusive inland routes have relied on traditional deck barges and towing operations. In other world quarters, waterborne inland container shipments are aboard dedicated vessels that mirror their larger ocean-going counterparts. These vessels are able to achieve measurably faster transit times between inland ports. While discussions of such vessels abound in the US, neither private nor public entities have, so far, been willing to undertake the necessary investment.

Environmental Constraints and “Livable” Communities

Proponents contend that restricting commercial and industrial activity in favor of personal mobility, green spaces, and other environmental outcomes results in “livable” communities. Opponents of such practices refer to them as “gentrification” and warn that they will lead to economic hardships for the regions that embrace them. I have no particular opinion on the issue except to observe that the proponents of livable communities seem to be winning – particularly in the coastal regions that continue to see the greatest levels of population growth.

From a freight perspective, the inherent conflict is obvious. Global trade growth demands increased deep draft port capacity and growing coastal populations require increasing quantities of consumer goods. On the other hand, livable community standards restrict port growth and very often limit local freight operations in ways that inhibit freight’s movement. The response has been a trend toward relocating freight activities inland, away from metro centers. Clearly, this doesn’t eliminate the need for port access, but it can reduce the required footprint of port-related distribution activities. In this way, the impacts of freight on local metropolitan communities are minimized.¹⁵

¹⁴ Mexico and Canada already rank among the top US trading partners.

¹⁵ This pattern of land-use has already been widely adopted by the railroad industry which is rapidly abandoning traditional intermodal facilities located in city centers in favor of more distant sites where space is abundant and only metro-related traffic is subjected to urban roadway congestion.

From the standpoint of inland commercial navigation, this pattern of traffic diversions holds opportunities for traffic growth. Vessel-to-vessel transfers can be affected without the need for land-side facilities and the corresponding port-side land use. Moreover, these transfers preserve the integrity of cargoes by isolating them from exposure to security threats. For inland communities, with greater quantities of developable property and fewer land-use concerns, the capture of trade-related freight activities can often spur much needed economic development.¹⁶In short, everybody wins.

Finally, while community livability and environmental concerns may be more pronounced in coastal areas, the same basic pattern of land-use preferences is emerging in many inland metropolitan areas. And similarly, where commercial navigation is available, it is often possible to relocate some amount of heavy industrial freight traffic away from metro centers to more receptive communities with the effect of improving conditions for both. In my home state of Tennessee, we recently completed a detailed analysis that suggests relocating certain waterborne freight traffic from its current location on the Cumberland River within metropolitan Nashville to a proposed location approximately 40 miles to the north would reduce localized traffic congestion in Nashville, improve the efficiency (reducing cost) of product distribution, and provide an economic boost to the alternative destination community.¹⁷

Future Demands for Inland Commercial Navigation – A Summary

Currently, most barge traffic consists of bulk commodity movements of coal, grain, aggregates, metallic ores, and chemicals. While this traffic is subject to both domestic and international cyclical variations in volumes, there is no immediate reason to expect any lasting change in the demands for the movement of these products on the inland waterway system. Thus, from a planning perspective, the most relevant question is whether or not we may reasonably expect *other* economic changes that will measurably add new waterborne traffic to the existing mix.

There is no single, heavily-weighted factor that demands an answer of “yes” to this question. On the other hand, there are numerous (albeit less powerful, indications) that the potential for waterway traffic growth cannot be readily dismissed. Likely fuel price increases and price volatility, while certainly uninvited, probably favor the use of barge transports over other modes. Similarly, increases in international commerce – particularly over US Gulf ports – also point to an increased role for navigation. Even the use of inland navigation for the movement of international containers, while by no means eminent, may be feasible under conceivable economic conditions. Finally, land-use patterns that push freight away from metropolitan areas could lead to additional traffic if navigation is available.

¹⁶ For a contrast in local attitudes, survey the popular responses to proposed port developments in Savannah and Charleston to a similar proposal for new port-related developments in Jasper County, South Carolina, immediately north of Savannah.

¹⁷ See, “An Evaluation of the Potential for Commercial Navigation to Additionally Contribute to Freight Transportation in the Tennessee River Basin,” Center for Transportation Research, The University of Tennessee, February 2011.

Has Aging Infrastructure Left US Inland Navigation at a Crossroads?

While my years of study have rewarded me with both a familiarity and a fondness for commercial navigation, I am an analyst not an advocate. Accordingly, I'm inclined to address questions surrounding industry's future value and viability with available reason rather than rhetoric. This motivates a number of questions. The first of these is whether or not inland navigation is now and will continue to be important to the vitality of the US economy. I am convinced the answer to this question is "yes" for both now and foreseeable years to come. The next questions deal with the current system's state of repair, the need for reinvestment, and the likely consequences if this investment is not forthcoming.

In my introductory remarks, I observed that many of the physical facilities that support commercial navigation are well beyond their design-lives. In spite of this fact very few facilities have experienced actual failures. This is the result of careful monitoring and maintenance. However, this necessary vigilance imposes additional costs on both users and the federal government that could be avoided if assets were replaced in a timely way. More importantly neglect sows the seeds of uncertainty among users. Facility failures are unlikely to compromise the navigation system's overall viability, but uncertainty might.

The severely degraded condition of many locks and dams sends a powerful signal to both current and would-be users – a signal that future availability is far from assured. This signal causes uncertainty. Uncertainty slows private investment in waterway terminal facilities and other assets. Shippers, who can, investigate their alternatives.¹⁸ Those who have no alternative must decide whether to risk further waterway-related investment in the face of uncertain future access or simply make do with the facilities they already have in place. In this way, the failure to adequately invest in public infrastructure or even prolonged periods of indecision can induce the quiet collapse of system use.¹⁹ Those who doubt the impact of user expectations on subsequent traffic volumes need only look to the Missouri River basin for a powerful example.²⁰ If national transportation policy includes commercial inland navigation going forward, then significant system investments must be planned and plans must be executed sooner rather than later.

It is similarly risky to reduce the system to its core components by ending support for tributary navigation. Obviously, it is impossible to make commercial navigation equally available in all quarters, but eliminating access at any location reduces the value of the overall system for remaining network users and should be done only after careful thought. This situation is analogous to telephone service. Your phone is valuable to you, because you can call (or be called by) a large number of other telephone subscribers. If some act suddenly ended all service to Cincinnati, *your* telephone would be less valuable

¹⁸ Alternatives include adapting their shipping practices to make use of modal alternatives or relocating to an alternative waterway site where continued navigation access seems more certain.

¹⁹ Each time a waterway segment is closed to navigation, remaining users are connected to fewer origin-destination pairs. For this reason the value of the system to remaining users is diminished. Economists refer to this phenomenon as a "network externality".

²⁰ In the case of the Missouri River, user expectations regarding the likely adoption of a split navigation season stemmed private investment in dock and other terminal facilities. Ultimately, the uncertainty resulted in marked traffic reductions. Finally, the lost traffic was used to justify the split season's actual implementation.

to you even if you currently don't know a soul who lives or does business there. Tributary origins and destinations represent potential value for shippers on main-stem waterway segments even if their current shipping practices do not include them.

Finally, we can only hope the decision-making process regarding renewed inland navigation investment adequately reflects the wildly asymmetric penalties associated with making the wrong decision. If we decide to renew the inland waterway's capacity and it proves to be unneeded, we will have, at least partially, misspent a considerable sum of money. Alternatively, if we forego waterway investments that later prove to have been in the public's best interest, we may well have created a harm that cannot be fixed. Technically, navigation capacity, once lost, could probably be restored, but the resources necessary for this restoration would be remarkably large. This sort of potential punishment is not simply hypothetical outcome. It is, instead, a scenario that was played out countless times within the railroad industry during the latter half of the Twentieth Century. If you ask the currently retiring generation of railroaders about regrets, wrongly-abandoned routes that can never be restored will top many lists.

Does Economic Theory Support a Federal Role in the Creation of Renewed Inland Navigation Capacity and, If So, What is the Proper Course?

Even after decades of mergers, it is still common to find two or more competing railroads running side-by-side. Moreover, even when one rail route is not visible from the tracks of another, there is generally railroad competition. Literally hundreds of thousands of US city pairs are linked by two, three, four, or five different rail carriers or rail carrier combinations. If there is any lack of competition at all it is generally over the last few miles over which railroad customers connect to the greater railroad network. This is not true of the inland navigation system. With only few exceptions there are not duplicate waterway network links. In most cases, there is only one waterway route between any origin-destination pair and little or no opportunity to create competing routes. Within economics, this outcome is referred to as a *natural monopoly*.²¹ Unimpeded, any single firm that controlled the waterway network (or any of its component parts) could impose monopoly prices. Again, competition, through the development of a competing navigation network is impossible. Thus, the federal government is faced with only two choices, it could lease control of the inland navigation system to one or more franchise holders and carefully regulate their activities (pricing, network access, service levels, etc.) or it must retain control of the system and operate it equitably to the benefit of all waterway users. We have very wisely chosen the latter course.

The efficient federal control of the inland waterway network imposes obligations on government planners and decision makers that are relatively easy to describe. They must design a network sufficient in extent and capacity to ensure that any further expansion would impose incremental costs that are greater than corresponding additional benefits. The cost of actually constructing, operating, and maintaining the resulting system must then be recovered through fees charged to those who benefit from the waterway's use. Fees faced by each group of users should (at least) reflect any costs that are directly incremental to that group's use.²²

²¹ Strictly speaking a natural monopoly exists when a single provider can satisfy market demand at lower unit costs than any combination of two or more providers.

²² Technically, the user fees for each group should also be less than the "stand-alone" cost of building the system exclusively for that group's problem. Practically, however, this is not a consideration.

I've chosen these words very carefully so that they conform to my discipline's practice. However, simpler language can convey similar notions without a catastrophic loss of precision. The inland navigation system need not be the biggest, most extensive system *possible*. Instead, it should be built out to the point where further investment seems silly. If our children don't understand this concept, our parents surely did. Building, operating, and maintaining such a system requires money. Thus, those who benefit must be made to "contribute" toward this end. Differences in who pays which share of the bill depend on whether or not it's possible to assign specific costs to distinct subsets of users – if you cause us to buy it and we can demonstrate that connection, then you pay for it.

The implications of this common sense (or if you prefer, theoretically sound) prescription for renewed investment in inland waterway capacity are simple. If, as some maintain, the only groups to benefit from the required investment are waterborne carriers and their customers, then the full burden of new investment should rest with them. Alternatively, if you conclude as I have, that a much broader set of Americans will benefit from this assured navigation capacity, then the burden must be spread equitably across this broader array of beneficiaries.

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DEPARTMENT OF THE ARMY

COMPLETE STATEMENT

OF

THE HONORABLE JO-ELLEN DARCY
ASSISTANT SECRETARY OF THE ARMY
(CIVIL WORKS)

BEFORE

THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT

UNITED STATES HOUSE OF REPRESENTATIVES

ON

THE ECONOMIC IMPORTANCE AND FINANCIAL CHALLENGES OF
RECAPITALIZING THE NATION'S INLAND WATERWAYS
TRANSPORTATION SYSTEM

SEPTEMBER 21, 2011

Mr. Chairman and distinguished members of the Subcommittee, thank you for the opportunity to testify on the economic importance and financial challenges of recapitalizing the Nation's inland waterways.

OVERVIEW

The Army Corps of Engineers is committed to facilitating commercial navigation by providing support for safe, reliable, highly cost-effective, and environmentally sustainable inland waterborne transportation systems. To this end, the Corps constructs and rehabilitates the locks, dams, channels, and other project features that enable vessels to transport commercial cargo along about 12,000 miles of inland waterways, including 237 operable lock chambers at 191 active sites. The Corps also operates and maintains these 12,000 miles of developed waterways, using methods such as maintenance dredging of navigation channels and some harbors and regulating water levels in some cases.

ECONOMIC IMPORTANCE

Inland navigation contributes to our nation's economy, and is a factor in some state and local government economic development and job creation efforts. Inland waterways directly serve 38 states in the nation's heartland, the Atlantic seaboard, the Gulf Coast and the Pacific Northwest. Shippers in these states use the inland waterways to move a total of over 600 million tons of cargo annually. Some of the inland waterways, such as the Mississippi and Ohio Rivers and the Illinois Waterway, support a high level of commercial traffic.

INLAND WATERWAYS TRUST FUND

In accordance with the Water Resources Development Act of 1986, as amended, capital investment on 27 fuel-taxed waterways is financed 50 percent from the General Fund of the Treasury and 50 percent from revenues paid by the inland waterways users into the Inland Waterways Trust Fund (IWTF).

A balance of funding built up in the IWTF in the years after its authorization in 1978. However, due to significant capital investment in the inland waterways in recent years, reaching a high of \$175 million in outlays from the IWTF in fiscal year 2006 and \$171 million in fiscal year 2008, coupled with declining fuel tax receipts, the balance in the IWTF was at risk of being depleted by fiscal year 2009. Generally, since fiscal year 2010 construction and rehabilitation work has been constrained by the level of anticipated incoming fuel tax revenues of approximately \$75 to \$85 million annually. As these revenues fund the user-financed 50 percent share of capital costs, this has limited the total annual construction program for cost-shared projects to \$150 to \$170 million per year. A notable exception to the 50/50 cost sharing was provided by Congress under the American Recovery and Reinvestment Act of 2009 (ARRA), whereby there was no IWTF matching requirement. The Army's commitment to inland waterways navigation is evidenced by the fact that, under ARRA, despite the lack of cost-sharing, the Army allocated \$420.5 million to ongoing inland waterways capital projects. In addition to construction, the Army spends almost \$600 million annually on maintaining the inland waterways infrastructure. Under ARRA, the Army allocated an additional \$394 million to operation and maintenance of inland waterways projects.

INCREASING REVENUE TO THE INLAND WATERWAYS TRUST FUND

The President's plan for economic growth and deficit reduction, which he sent to the Congress earlier this week, shows how we can reduce the deficit, pay down our debt, and pay for the American Jobs Act in the process. The plan includes a proposal for a new user financing structure for the inland waterways to supplement the existing diesel fuel tax. A new user fee would generate about \$1.1 billion of additional revenue into the Inland Waterways Trust Fund over the next 10 years to supplement about \$1.0 billion anticipated from the existing fuel tax. The additional revenue would enable a more robust level of funding for safe, reliable, highly cost-effective, and environmentally sustainable waterways, and contribute to deficit reduction and economic growth.

I expect the Administration to submit the specifics of this legislative proposal to the Congress shortly. The Administration initiated discussions with the inland navigation stakeholders and will continue the dialog with them on this matter. I hope that the submission to the Congress of a specific proposal will facilitate those discussions by identifying areas of common ground and workable solutions to those points on which there is disagreement, on a path forward to address the revenue shortfall.

INFRASTRUCTURE RECAPITALIZATION

The Army is committed to improving its project planning, design, construction, and operation and maintenance processes in order to more efficiently use available funds to achieve inland waterways navigation benefits. As part of this effort, the Army has initiated discussions with the U.S. Department of Transportation to coordinate infrastructure investment planning between the two agencies. The Administration plans to work with Congress and stakeholders to explore ways to provide a framework across all of the Civil Works mission areas for decisions on the recapitalization of aging Corps infrastructure, which could include modification of Corps operations, or de-authorization of projects, consistent with modern day water resources principles and today's and tomorrow's water resources priorities and challenges. For example, under these principles, which were spelled out in the FY 2012 Budget, direct beneficiaries would be asked to pay a significant share of the costs to extend, expand, rehabilitate, or replace projects, as they would for a new project, commensurate with the benefits they receive. Options such as direct financing will be considered as part of this effort, where appropriate, and in accordance with the Federal government's budgetary standards for such arrangements.

CONCLUSION

In summary, the Administration will work with Congress and stakeholders to revise the laws that govern the Inland Waterways Trust Fund to ensure that the revenue paid by commercial navigation users of the inland waterways to meet their share of the costs of fund-financed activities is sufficient to allow needed inland waterways capital investments to go forward.

Mr. Chairman and Members of the Subcommittee, I look forward to working with this Subcommittee to achieve that objective. Thank you.



Testimony of

**Steve Ebke, Chairman, Production & Stewardship Action Team
National Corn Growers Association**

**“The Economic Importance and Financial Challenges of Recapitalizing
the Nation’s Inland Waterways Transportation System”**

**House Committee on Transportation & Infrastructure
Subcommittee on Water Resources & Environment**

September 21, 2011

Chairman Gibbs, Ranking Member Bishop and distinguished members of the subcommittee, thank you for the opportunity to testify today on behalf of the National Corn Growers Association (NCGA) as part of the House Transportation and Infrastructure Subcommittee on Water Resources and Environment hearing on the importance of our nation’s inland waterways transportation system.

My name is Steve Ebke, and I am chairman of NCGA’s Production and Stewardship Action Team, which handles transportation policy for our national organization. I am a third generation farmer from Daykin, Nebraska where I grow corn, soybeans and wheat. NCGA was founded in 1957 and represents approximately 35,000 corn farmers from 48 states, as well as more than 300,000 farmers who contribute to corn checkoff programs and 27 affiliated state corn organizations across the country. The mission of NCGA is to create opportunities for corn growers to enhance corn’s profitability and use.

The U.S. agricultural sector is the largest users of the freight transportation network, accounting for nearly one-third of all freight transportation services provided across the country. With the primary agricultural production in the interior of the country, far from the ports that link to international trade economy, transportation is critical to the competitiveness of U.S. agriculture in world markets. The U.S. Department of Agriculture research shows that nearly half the cost of U.S. grain at its final destination is accounted for by the cost of transportation from the farm gate to the consumer.

Farmers move their crops and receive their inputs by barge, rail and truck. The competition among these modes of transportation helps farmers receive the best price for their crops, meet

their customers' demand for timely delivery of products and successfully compete with foreign producers. Without the competition that comes from access to efficient, alternative transportation methods, farmers can pay significantly more to transport their grain.

Even though not all corn growers ship to the Mississippi River, all growers are impacted by it. While my home state of Nebraska is not adjacent to the Upper Mississippi River System, farmers in my area understand the importance of our inland waterway transportation system. Every day, the price of grain a farmer receives at his home market is largely based on the price of grain that moves on the Mississippi River to export markets.

Each year more than one billion bushels of grain – about 60 percent of all grain exports – are shipped for export via the Mississippi River. The American farmer's international competitiveness has always hinged on the ability to move crops to market. The lower the cost of transportation, the lower the cost of U.S. grain on the world market; thus, the more grain the U.S. is able to sell. South American countries are investing large sums in river infrastructure to upgrade their river systems to be more competitive with the U.S. America cannot afford to allow any aspect of river commerce to deteriorate for fear of losing export market share to South America at the expense of our agriculture industry.

In addition, the modernization of the Panama Canal, expected to be completed in 2014, will lead to expanded agricultural export markets within the next few years. Currently, 57 percent of U.S. grain leaving Gulf ports makes its way through the Panama Canal. In 2006, Panama approved a \$5.25 billion project to double the capacity of the canal. The modernization project will add two new locks, two navigational channels connecting the new locks to the existing system, and deeper, wider shipping lanes.

The current canal completed in 1914 is nearing its limit for the number of ships it can handle. According to the Soy Transportation Coalition (STC), during peak shipping season, 40 or more ships can be backed up each day waiting to transit the canal. The expansion is good news for corn farmers, as it will lessen transport time and should reduce ocean-freight costs. This is particularly important for containerized dried distillers grains (DDGs) bound for Asian markets. However, if domestic infrastructure is inadequate, the canal expansion project will be a missed opportunity.

The truth is that many locks currently in use within the U.S. inland waterways system are too small for today's larger tows, susceptible to closures and long delays for repairs, and unable to

deal effectively with lines and wait times that results from their obsolescence. The American Society of Civil Engineers 2005 *Report Card for American Infrastructure* assigned a grade of D- to the condition of our river infrastructure. On the Upper Mississippi River, many lock chambers are 600 feet in length. However, the average length of a modern tow (15 barges pushed by a towboat) is 1,200 feet. Consequently, for a modern tow to navigate through these antiquated locks, it must split in half and transit the lock one section at a time, resulting in costly delays.

The good news is that construction has been planned for five new locks along the Upper Mississippi River – L&D 25, 24, 22, 21 and 20 – and two new locks along the Illinois River at LaGrange and Peoria. The planning was completed by the U.S. Army Corps of Engineers and approved by the Chief of Engineers in December 2004. In the 2007 Water Resources Development Act (WRDA), Congress authorized construction on these seven projects within the Navigation and Ecosystem Sustainability Program (NESP). The dual-purpose NESP authorization integrates modernization of the navigation system to reduce barge traffic delays with restoration of important habitats. Unfortunately, in the four years since the passage of WRDA, little or no funding has been allocated.

These much needed infrastructure and ecosystem improvements are consistent with the goal of job creation and overall economic recovery. In fact, President Obama included inland waterways projects as a component of the proposed American Jobs Act, which was unveiled just last week. The U.S. Army Corps of Engineers estimates that for every \$1 billion invested in navigation or ecosystem restoration projects, 30,000 to 35,000 jobs are created. More specifically, the lock upgrades on the Upper Mississippi and Illinois Rivers would require a total of 48,000,000 person hours from skilled trades throughout the Midwest. The reinvestment potential for our communities from this opportunity is enormous.

In addition to the direct, immediate and obvious benefits that these infrastructure investments would provide in the form of jobs and economic activity, they would also result in many additional long-term benefits. The greater capacity and efficiencies that are created for barge transportation on the inland waterways system will alleviate some of the demand for truck transportation, which is more fuel intensive and puts more pressure on already stressed highway infrastructure. The carrying capacity of one 15-barge tow eliminates the need for 870 semi-trailer trucks to travel our nation's highways.

As the most fuel efficient means of transportation for agricultural commodities, an investment in our waterways infrastructure will help us toward our national goals of energy security and

improving our environmental footprint. Barges operate at 10 percent of the cost of trucks and 40 percent of the cost of trains, while releasing twenty times less nitrous oxide, nine times less carbon monoxide, seven times less hydrocarbons, and burning ten times less high-price fuel.

Of course, we all realize that in this time of severe budget constraints, we must be more responsible and efficient with our federal spending. That's why in 2009, the U.S. Army Corps of Engineers collaborated with the Inland Waterways Users Board and other stakeholders to draft the Inland Waterways Capital Development Plan, which recommends major improvements to project funding and delivery. The plan proposes a more adequate funding mechanism, prioritizes navigation projects across the entire system, improves the Corps' project management, provides more oversight, and ensures the Inland Waterways Trust Fund (IWTF) continues to retain necessary matching federal funds.

The proposal would preserve the existing 50 percent industry and 50 percent federal cost-sharing formula for new lock construction and major lock rehabilitation projects costing more than \$100 million. The plan would adjust the current model to provide 100% federal funding for dam construction and major rehabilitation and smaller lock rehabilitation projects, recognizing the value derived by other beneficiaries from dams and the pools created by dams.

The proposal also includes a cost share cap on new lock construction projects to incentivize keeping projects on budget and prevent industry taxpayers from bearing the burden of paying for significant cost overruns. This will strengthen the ability of the Inland Waterways Trust Fund to fund all priority projects in the pipeline, including the seven NESP projects on the Upper Mississippi and Illinois Rivers that are a priority to NCGA.

The proposed new funding parameters will necessitate a 30 to 45 percent increase (between 6 and 9 cents per gallon) in the existing fuel tax of 20-cents-per-gallon that is paid by the barge and towing industry. At the same time, the recommended reforms to the Corps of Engineers' project management and delivery process would ensure that these additional resources are spent wisely.

In March of 2010, NCGA officially endorsed the Inland Waterways Capital Development Plan, and we have strongly advocated for its inclusion in any future WRDA bill or infrastructure development proposals. We recognize that the increase in the fuel tax will ultimately be passed on to farmers, but NCGA strongly believes that a strategic investment in our nation's waterways will be beneficial to the agriculture industry in the long run. Without a restructured capital

development plan, the seven locks authorized in WRDA in 2007 could be waiting decades to begin construction.

In 2005, the agriculture industry experienced firsthand how important the inland waterway transportation system is to our bottom line. In late summer, Hurricane Katrina shut down the Gulf ports for weeks and debilitated at least 100 barges south of New Orleans, severely constricting barge supply. The cost to ship a bushel of corn from St. Louis to New Orleans in the weeks following Katrina jumped from a normal rate of 33 cents to about 81 cents per bushel. Some areas were trading as high as 800 percent of tariff, which at the time translated to approximately \$1.34 per bushel. In other words, it cost more to ship a bushel of corn than what grain elevators along the river were paying for it. While these conditions were obviously weather related, the impacts from a major lockage failure could be similar.

In closing, NCGA believes that improving transportation capacity should be a national priority that deserves urgent attention. We can no longer stand idle, taking our transportation infrastructure for granted. For too long we have lived off the investment of our ancestors. It is time to provide necessary and long-overdue improvements to our nation's waterways.

Thank you for considering our comments on this important issue. I am happy to take any questions.



Testimony of Steve Ellis
Vice President, Taxpayers for Common Sense

Subcommittee on Water Resources and Environment,
Committee on Transportation and Infrastructure hearing on
"The Economic Importance and Financial Challenges of Recapitalizing the Nation's
Inland Waterways"

September 21, 2011

Good morning, Chairman Gibbs, Ranking Member Bishop, members of the subcommittee. I am Steve Ellis, Vice President of Taxpayers for Common Sense, a national non-partisan budget watchdog. Thank you for inviting me here today to testify on reform of the Inland Waterway System and the fiscal issues surrounding it.

I find it ironic that to teach about how government works my government professor at the Coast Guard Academy chose *Congressional Odyssey*, a book about then-freshman Senator Domenici's efforts to create the barge fuel tax, which was followed by *Showdown at Gucci Gulch* about the 1986 tax reform. Little did I know then that much of my future as a budget watchdog testifying on the inland waterway financing was set. One of my first jobs in the Coast Guard was to manage the inland waterway buoy tender fleet. In that capacity, I visited units operating on the inland waterway system, which gave me an appreciation of how it works. I have continued to work on inland waterway issues for the rest of my professional career.

The Inland Waterway System

The inland waterway system is made up of rivers –mostly in the mid-west and east – that the U.S. Army Corps of Engineers maintains for navigation. To make these rivers navigable, the Corps uses a variety of tactics including dredging, bank stabilization, placing rock structures in rivers to concentrate flow, and constructing navigation locks and dams to maintain depth. A Congressional Research Service analysis of freight data found that the inland waterway system carried 550 million tons of freight in 2007 – just under 5% of the total domestic freight that year.¹ One of the limitations on the system is that commodities have to go where the river goes, whereas you can truck or rail cargo virtually anywhere in the country. So while one barge can carry far more cargo than a truck or a rail car, it can't always take the cargo to its ultimate destination. This limitation and the fact that waterborne traffic moves far slower than other modes means the cargo transported is almost always low value, high volume, non-time-

¹ Congressional Research Service. Inland Waterways: Recent Proposals and Issues for Congress. July 14, 2011. p.2.

sensitive commodities. The vast majority of the traffic is bulk commodities, particularly grain, and on some waterways, coal. Also, all segments of the system are not equal. In fact, 90% of the traffic is on the Mississippi, Ohio, Illinois, and Gulf Intracoastal Waterway.² While some liken the other segments of the system to feeder streets to the main navigation highway, the data indicates traffic originates on the workhorses of the system and these other segments are more like driveways serving local or individual concerns, but lacking a true federal interest.

Most segments of the inland waterway system do not maintain adequate depth to maintain navigation (9 foot minimum). One way to maintain adequate depth is construct dams to create a series of pools. But a series of pools does not make a navigable system. There must be a means for traffic to move from pool to pool. Thus, navigation locks are built into the dam structure. In essence, locks consist of a rectangular chamber with doors on the upstream and downstream end. A tow traveling downstream would enter the lock at the upstream pool height, the doors would close behind it, water is released to achieve the height of the downstream pool, the downstream doors open, and the tow is on its way. A key point is that you can have a dam on a river without a lock – Hoover Dam for instance – but you can't have a lock without a dam. It would be like having a door without a building.

Funding History

When the first snagging and clearing was ordered by Congress in 1824, the construction and maintenance of inland waterways were fully subsidized by the taxpayer. That changed, starting in 1978, when Congress created a barge fuel tax and then in 1986 when they created a cost-sharing formula: 50 percent of the cost of construction and major rehabilitation projects on the inland waterway system would be borne by the Inland Waterway Trust Fund (IWTF) and 50 percent by the treasury. Since 1996, the IWTF has been funded by a 20-cent barge fuel tax. Similar to the 18.4 cent gas tax that was last adjusted in 1997 and funds the highway trust fund, inflation has eroded the purchasing power of the tax. In the FY12 budget request, the administration estimates \$87 million in revenue from the tax.³

The IWTF shares another dubious similarity with the HTF – overspending the revenues. For years there were complaints about IWTF surpluses. After a binge diet of spending, this is no longer a worry, and the IWTF is basically living hand to mouth. Other than those similarities with the HTF, there are significant differences between the IWTF and the other trust funds overseen by this committee. The Highway Trust Fund supports new construction and maintenance, while the Aviation Trust Fund, which generates revenue from passenger ticket taxes, funds construction and maintenance like runway rehabilitation. The Harbor Maintenance Trust Fund (HMTF) generates revenue from an *ad valorem* tax on imports (the export portion was found unconstitutional in a Supreme Court decision – *U.S. v. U.S. Shoe*) and funds maintenance dredging at the nation's harbors. New construction – deepening projects – are cost-shared with the federal government. If it's not obvious, all of the other transportation trust funds pay for maintenance costs except the IWTF. There's an additional difference. WRDA 86

² National Wildlife Federation and Taxpayers for Common Sense. *Crossroads: Congress, the Corps of Engineers and the Future of America's Water Resources*. March 2004. p47.

³ Budget of the United States Government, Fiscal Year 2012

also created the Inland Waterway Users Board – a federally funded, federally staffed board of private industry that recommends how taxpayer’s money should be spent. None of the other transportation systems has a taxpayer-funded advocate sitting at the table.

The atypical cost-sharing structure of the inland waterways creates costly, unintended, even bizarre consequences. Since users don’t have to pay anything for maintenance, they are constant cheerleaders for new construction. There is absolutely no recognition of the maintenance costs associated with the inland waterway system. There is no market mechanism to suggest that times have changed and certain waterways should no longer be maintained. There are federally maintained waterways that see almost no traffic in a year yet the taxpayer is on the hook to maintain the system. In an earlier analysis, 17 segments of the inland waterway system had 2.3 percent of the total traffic, yet reaped 30 percent of the operations and maintenance funding.⁴ After the Chattahoochee River saw only a handful of barge tows one year, former Congressman Tancredo (R-CO) opined that it would be cheaper to ship by limousine.⁵

The full federal funding of operation and maintenance on the inland waterways system differs from other Corps of Engineers projects as well. As discussed, harbor maintenance projects are almost entirely funded through the HMTF. Flood control projects – in many cases the levees that line the navigational waterways – are constructed with the understanding that maintenance will be funded locally, as are most environmental restoration projects. Shore protection projects are fully cost-shared. So even in the Corps portfolio, inland navigation has a sweetheart deal. In fact by the Corps’ own analysis, over the last three years the IWTF has covered only about 8% of the costs for making navigation possible on the inland waterway system, while non-federal sponsors in the coastal system have covered nearly 80% of the costs,⁶ despite the fact that the economic contribution of coastal navigation dwarfs the economic contribution of the inland waterways.

Inland Waterway Users Board Proposal

The IWTF has been sorely underfunded virtually from the beginning. The lack of significant revenue, inflation, and overspending has put the system on the brink of bankruptcy. The taxpayer subsidized house of cards is falling down. Recognizing this, the taxpayer-subsidized users board developed a proposal – with significant Corps of Engineers assistance – to dramatically increase the subsidy for the inland waterway system. Remember, the inland waterway system already receives a 90 percent subsidy.

I thought about how to charitably characterize the proposal but all I could come up with was – greedy.

The original proposal offered a marginal increase in the unchanged for 15 years fuel tax and in return demanded a series of increased subsidies that more than offset any increased revenue.

⁴ National Wildlife Federation and Taxpayers for Common Sense. *Supra* Note 2.

⁵ *Ibid.* p62.

⁶ Letter from Assistant Secretary of the Army (Civil Works) Darcy to Congressman James Oberstar. Dec 21, 2010.

But in the draft legislation that has been circulating, the modest increase of the gas tax by a few pennies has been jettisoned. At a hearing of this very committee last year, the Chairman of the Inland Water Users Board said this fuel tax increase was “a measure of the seriousness and spirit of compromise” on the part of industry. Now they are just asking for more subsidies, which, particularly in this budget environment, is preposterous.

First, the proposal retains cost-sharing for navigation locks but places dam major rehabilitation or construction on the backs of taxpayer, arguing that the pools or lakes behind the dam provide water supply, hydroelectric energy, flood control, and recreation benefits. In reality, there are plenty of recreation benefits at the hundreds of undammed rivers around the country. Similarly, many non-navigable waterways provide water supply. The vast majority of navigation locks and dams are built for just that – navigation. Any other benefits are incidental. Besides that, as I earlier indicated, the dams are critical for navigation. You can have a dam without a lock, but a lock without a dam is worthless.

The IWUB proposal also shifts major lock rehabilitation projects costing less than \$100 million to the taxpayer. Of course there hasn’t ever been a major lock rehabilitation project that exceeds that amount, so all lock rehabilitations are shifted to the taxpayer.⁷

But lastly, and most insultingly, the IWUB proposal directs that all cost overruns be borne by the taxpayer. The baseline is the feasibility study. Everyone who’s ever taken more than a passing glance at a Corps project justification knows that feasibility cost estimates are a fiction. That is everyone except Congress. I think the Corps motto should be changed to “We may take twice as long, but we cost twice as much.” An analysis by the Great Lakes and Ohio Division of the Corps noted that the more than 50 percent cost increase on the Olmstead lock project was significantly impacted by the Corps fallacious assumption that optimal funding would be provided. Explaining this situation, the Corps wrote: “The initial Feasibility cost ... assumes that engineering, real estate and construction funds will be available at the beginning of the project. This is never the case...”⁸ The cost increase is baked in. This is a bigger problem than just inland waterway projects and skews the benefit cost ratio in favor of approving projects throughout the Corps portfolio. The IWUB proposal on cost overruns would put inland waterway construction projects in an exalted status that exists for no other federal project.

There will be real and serious impacts of adopting the IWUB proposal. The board envisions spending \$380 million on inland waterway construction annually – more than doubling present spending levels. Considering that Congress is supposed to adopt at least \$1.2 trillion worth of deficit reduction by the end of the year, it’s unrealistic to think the Corps’ budget is going to increase in the foreseeable future. That means it’s a zero sum game. Any increase on spending for inland waterway projects will come at the expense of harbor deepenings, beach replenishment, flood control, and environmental restoration projects. Furthermore, none of the inland navigation projects the Corps has green-lighted in recent decades have met their

⁷ *Ibid.*

⁸ Great Lakes and Ohio River Division, U.S. Army Corps of Engineers. Inland Navigation Construction Selected Case Studies. July 17, 2008.

economic predictions. In an era of austerity and prioritization, this record hardly justifies increased investment at the cost of other Corps mission areas.

This proposal highlights problems with the Inland Waterway Users Board. I am not aware of a similar entity with such a role in directing federal spending; there is no port or highway or airport users board made up entirely of industry officials and staffed by government employees, charged with making recommendations on the priorities and spending from a trust fund. TCS has called for the abolishment of the Inland Waterway Users Board.

Next Steps

Everyone agrees that there is a problem with the Inland Waterway Trust Fund. But the solution is not to ignore it and turn around and throw more subsidies at the inland waterway system.

The cross subsidies within the inland waterway portfolio are immense. Although the fuel tax does not fund O&M, comparing tax revenue to O&M spending by waterway segment is illustrative of some of the issues. The only waterway that raises more revenue than O&M expenditures is the Lower Mississippi River. Even other high volume waterways such as the Ohio and Upper Mississippi get far more O&M support than they contribute in revenue: four times on the Ohio and six times as much on the Upper Mississippi.⁹

One of the main drivers of cost on the inland waterways system – both construction and operations and maintenance – is the navigation locks. Because of this, whatever financing structure is contemplated, there must be some sort of lockage fee. That could be flat fees or sliding scales to help combat congestion delays or some other revenue generator.

In addition, rather than increasing the current 90 percent subsidy, the inland waterway industry needs to bear at least some of the cost of operations and maintenance. As I indicated earlier, inland navigation is unique within the Corps' portfolio of projects in that there is no non-federal responsibility for operations and maintenance. This creates a perverse incentive for the building of projects which otherwise would not be sought by users if they were held responsible for a share of the annual operations and maintenance costs. And it is out of step with the call from all corners for shared sacrifice and making tough choices as we right our fiscal ship.

The President's proposal to the Joint Select Committee on Deficit Reduction proposed raising \$1 billion from a new fee to supplement the existing fuel tax. It is unclear what the structure of that fee will be.

Whatever the new financing structure, one key reform that is sorely needed across the Corps program is a prioritization mechanism. Earmarks severely detracted from any rational budget process. Now with the current earmark moratorium, the Administration is left to select the "winners" and "losers" in the Corps program. The decision making as to what projects should be funded and how much is largely a black box. Congress should work with the Administration

⁹ Congressional Research Service. *Supra* Note 1.

to develop transparent and realistic criteria and metrics that would enable projects to be evaluated and prioritized for funding on the basis of merit. This will give taxpayers greater confidence that the best, most important projects are being funded. We cannot afford to award project funding on the basis of political muscle.

The nation is facing a \$1.3 trillion budget deficit and a more than \$14 trillion chasm of debt. Hard choices have to be made and we need shared sacrifice. Instead of giving away another taxpayer handout there needs to be a thorough reevaluation of the inland waterway system that looks at shutting down some of the deadbeat waterways and prioritizing our investments. This effort should be done throughout the Corps program.

The inland navigation system has a significant role to play in our nation's freight transportation mix. It cannot be simply about spending more; it has to be about spending wisely.

Thank you for the opportunity to testify and I look forward to answering any questions you might have.

Statement of Stephen D. Little
Before the
Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
U.S. House of Representatives

September 21, 2011

Chairman Gibbs, Ranking Member Bishop, Members of the Subcommittee, thank you for holding this hearing and for inviting me to testify on the “Economic Importance and Financial Challenges of Recapitalizing Waterways Transportation System”. While I have had the honor of appearing before the Subcommittee in the past, this is my first opportunity to address the Subcommittee during the current 112th Congress, and I am deeply honored to be part of the panel this morning.

I am Stephen Little, President and CEO of Crouse Corporation (Crouse). Crouse is a leader in the river transportation industry. A little more than 60 years after its first towboat was placed into service in 1949, today Crouse Corporation employs more than 350 people and, with its fleet of 35 towboats and 1,000 barges, it transports more than 30 million tons of cargo each year along the U.S. inland waterways.

Mister Chairman, I also have the distinct honor and privilege of having been the most recent Chairman of the Inland Waterways Users Board (IWUB or Users Board). The Inland Waterways Users Board is a federal advisory committee established by Congress in Section 203 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986), one of this Committee's many significant legislative achievements. Reflecting the concept of "Users Pay, Users Say", Congress created the Users Board to give commercial users a strong voice in the investment decisions those users are supporting with their diesel fuel tax payments. At full strength, the Users Board is comprised of eleven voting members, who are appointed to staggered two-year terms by the Secretary of the Army and are selected to represent the various regions of the country as well as a spectrum of commercial users and shippers of the inland marine transportation system. As envisioned in Section 302, the Secretaries of Army, Agriculture, Transportation, and Commerce each appoint a non-voting representative to act as an observer of the Users Board. The principal responsibility of the Users Board is to make recommendations regarding construction and rehabilitation priorities and spending levels on the commercial navigational features and components of the inland waterways and inland harbors of the United States.

I am pleased to appear before the Subcommittee this morning to testify in strong support of the recommendations developed by the Inland Marine Transportation System (IMTS) Capital Investment Strategy Team (CIST or CIS Team), a 50-member Corps/industry team on which I was a participating Team member. These recommendations have been approved unanimously by the Inland Waterways Users Board. They also have the broad and growing support of the waterways industry as evidenced by their unanimous endorsement by the boards of directors of

Waterways Council Inc., the American Waterways Operators (AWO), and National Waterways Conference (NWC) and by similar expressions of support from more than 200 other associations and companies throughout the nation. (See Attachment A).

As I'll discuss in more detail in my testimony, the CIS Team has produced a comprehensive, consensus-based, joint industry/Corps of Engineers set of proposals to address the capital investments that should be made over the next 20 years in order to preserve and enhance the performance of our nation's inland waterway transportation system. In sum, those recommendations present a proposed plan to:

- Identify ways to improve the Corps project delivery system,
- Implement a capital investment strategy that balances reliability and affordability
- Prioritize specific capital investments needed over the next 20 years, and
- Define revenue and cost sharing approach that can be met with reasonable certainty and efficiency.

Mr. Chairman, I believe the starting point for consideration of the financing and management challenges facing the inland waterway system must be recognition that the current business model for modernizing the nation's locks and dams is seriously broken and must be reformed. As a nation, we seem to have lost the ability we once had to plan and construct individual inland waterway capital projects in a timely fashion.

For the future well-being of this country, this must change!

Allow me to offer some examples of why I and many others believe our current approach is so broken.

Past Project Delivery Performance

- Upper Mississippi River. Following the 1930 Congressional authorization of the 9 – Foot Channel Navigation Project to St. Paul, MN, 29 locks and dams were planned, designed, and constructed on the Upper Mississippi River. 26 of these projects were completed and put into operation during the first ten years of that period.
- Illinois Waterway. Congress authorized a 9 – foot channel on the Illinois River, after which 7 lock and dam projects were completed and opened to navigation during the 1930’s (Lockport, Brandon Road, Dresden Island, Marseilles, and Starved Rock – all in 1933 – as well as Peoria and LaGrange, in 1938 and 1939, respectively).
- McAlpine Lock and Dam. At Louisville, KY, a modern (1200-foot-long, 110-foot-wide) lock and dam project was constructed and placed in operation in 3 years, from 1959 to 1962.
- Tennessee – Tombigbee Waterway. The largest earth-moving project in history, all ten individual locks and dams and the 280-foot-wide navigation channel spanning 234 miles were built in only 12 years, from 1972 to December 1984, 21 months ahead of schedule.
- Red River Waterway. Construction began in 1973 on the five new locks and dams and 225-mile-long navigation channel linking Shreveport – Bossier, LA to the Mississippi

River. Construction was completed and the navigation channel opened in 1994, only eleven years after construction began.

- WRDA 86 Locks and Dams. The Water Resources Development Act of 1986 (WRDA 86) authorized the construction of seven new lock and dam modernization projects in various locations throughout the nation's inland waterway system. Construction of all seven of these WRDA 86 projects proceeded at a pace that saw the new/modernized lock, the major feature of each of the projects, become operational in a reasonable amount of time, ranging from 4 years to 8 years, with the average for all seven projects equaling 6.3 years.

Current Project Delivery Performance

- Lower Monongahela Locks and Dams. This project (also referred to as "Locks and Dams 2, 3, and 4, Monongahela River, Pennsylvania") was authorized by Congress in WRDA 92 at an estimated cost of \$556.4 million. Construction began in fiscal year 1995. Today, sixteen years later, \$523 million has been allocated to the project through December 2010. However, the project's fully-funded cost estimate has almost tripled to \$1.7 billion and its projected completion date under the current broken model is another thirteen years away. Best case. The more likely scenario is that the project's completion under the current program could be well after that.

- Olmsted Lock and Dam. Initial construction funding was provided in fiscal year 1991 for this Ohio River project that had been authorized by Congress three years earlier at an estimated cost of \$775 million. Today, 20 years after that first appropriation for construction, the project is nowhere near completion and its estimated cost has almost tripled to at least \$2.046 billion. To make matters worse, the Corps has just announced that, after an internal review, the Corps believes the project's estimated cost "has changed significantly", which we understand to mean has increased significantly. Depending on the actual amount of the increase, such an increase could push the project's completion into the 2020's, thirty years or more after the first construction appropriation.
- McAlpine Lock and Dam. A little more than two years ago, in May of 2009, a new 1200-foot long, 110-foot wide auxiliary lock was dedicated adjacent to the existing 1200-foot long McAlpine Lock in Louisville, Kentucky. The new lock cost \$429.3 million and took fourteen years to complete, more than four times as long as it took to complete the original project at the identical location

These are just a few examples of our current broken business model. In the past our nation could build 26 projects in 10 years on the Upper Mississippi River, 7 lock and dam projects in 9 years on the Illinois River, locks and dams at 10 sites in 12 years on the Tennessee-Tombigbee Waterway, and seven new projects in 4 to 8 years following WRDA 86. Today it is taking 30 years to build new projects in each of two locations and 14 years to build what it took 3 years to build at another location.

This is completely unsatisfactory and is wasting billions and billions of dollars of scarce national investment resources.

The need for a long-term capital investment plan for the inland waterways has been apparent for a number of years, and the Users Board has attempted to highlight this issue in its annual reports. For example, I have included as an attachment to my testimony a copy of our report from 2 years ago, which goes into some detail on the subject. (Attachment B).

Our inland waterway system challenge has changed somewhat over the past 10 years or so. Ten years ago, the inland waterway industry and the nation were faced with the same kind of problem that all of the transportation trust funds had been experiencing: a growing surplus in the Inland Waterways Trust Fund as year after year more revenues were collected from the commercial users of the system than were withdrawn from the Trust Fund to make needed capital investments in the system. Those delays in expenditures resulted in preventable and greatly increased costs of projects. If the Trust Fund dollars had been spent properly in a timely fashion, we would have avoided much of the adverse impact from the dramatic rise in material prices like steel and concrete that occurred during some of those years.

Fortunately, with the help of this Committee and others, that challenge was met and the surplus was invested in modernization projects. Today the Trust Fund is operating, as originally intended when it was created, with virtually all of its resources being spent quickly to modernize the system.

Our nation's inland waterway modernization challenge going forward is the need to create and implement an improved program for the future. We have an aging system that needs recapitalization. We have a project funding and delivery system that is terribly inefficient, resulting in enormous wasted time and taxpayer dollars. Although we now have invested most of the Inland Waterways Trust Fund surplus, which unfortunately was allowed to sit idle for years, the inefficiencies of our current business model have resulted in too few finished projects. And all of this comes in the face of an unprecedented economic crisis that is severely stressing our waterway industry and the nation.

Work has been underway for some time to address this situation. A little more than four years ago, in a meeting at Corps headquarters with leaders of industry and the Corps gathered to discuss the going-forward challenge, the Corps committed to undertake an internal review of then-current inland waterway construction project performance to help identify and understand opportunities to improve project delivery results. During the summer 2008 meeting of the Inland Waterways Users Board, after presentation by and discussion with Corps leaders of the report that chronicled the results of that review (titled "Inland Navigation Construction, Selected Case Studies"), the Corps acknowledged shortcomings and the need for improvements and, to their credit, recommended that the Board should be more directly involved with Corps personnel in the development of an improved project delivery model. That led to formation of the industry/Corps CIS Team.

For roughly a year and a half, approximately 50 key Corps and industry representatives worked diligently to develop together a comprehensive solution to the future-oriented challenges facing

our inland waterways infrastructure, a solution that improves the project delivery system, dimensions the most critical physical needs of the inland waterway system, figures out what it will cost to address those needs, and addresses how to pay for it and how to allocate funding responsibility. Included among industry's representatives were the presidents of seven major inland waterway companies and senior representatives from a number of other companies. On the Corps side were senior leaders and technical experts from virtually every level of the Corps hierarchy: headquarters, divisions, districts and technical support centers. A series of multi-day face-to-face meetings was held throughout the country. Between those meetings, countless additional hours were spent in further discussions, phone conferences, and preparatory sessions.

This effort has required an enormous commitment from all involved but, speaking for myself and also reflecting the views of the entire Inland Waterways Users Board, it was a most important endeavor and a completely worthwhile commitment. At the end of the day, the CIS Team was able to meet the challenge it was given to develop the consensus recommendations I am now honored to testify in support of today.

The CIS Team proposes a \$7.6 billion 20-year inland waterway Capital Investment Program. The Program would entail an average annual investment level of \$380 million, comprised of two sub-component average annual program levels: \$320 million for "construction" projects and \$60 million for major rehabilitation projects. On average, of the \$380 million total, \$110 million would be contributed by the Inland Waterways Trust Fund and \$270 million would come from general revenues.

The CIS Team's proposal would preserve the existing 50% industry/50% federal cost-sharing formula for new lock construction and major rehabilitation projects costing \$100 million or more.

The plan would adjust the current model to provide 100% federal funding for dam construction and major rehabilitation projects and for smaller lock rehabilitation projects. The proposed funding for dams was made in recognition of the enormous value derived by other beneficiaries from the dams and the pools created by those dams. As the report points out, "such large and varied segments of the U.S. population benefit from the presence of dams on the (inland waterway) system that it is most appropriate for general revenues to fully fund dam construction and major rehabilitation costs". Categories of those non-navigation beneficiaries of the dams include municipal water supply, hydropower, recreation, industrial water supply, national defense and security, flood damage prevention, agricultural water supply, environmental restoration, local and regional economic development, property value enhancement, and international competitiveness.

The proposal also includes a project-by-project cost-sharing cap to provide some protection to industry from unreasonable cost escalation and project delays and to place additional emphasis on the need to produce more reliable project cost estimates in the underlying decision document and manage the completion of projects within the identified cost estimates and schedules. By incentivizing expedited completion of these important projects, this cap feature also will help protect the general taxpayer from preventable project delay and cost escalation. The cap would be set at the Feasibility or Rehabilitation Evaluation Report base cost, including contingencies

reflected in the relevant decision document, escalated to the new construction start date based on the IMTS capital investment program schedule plus any post-authorization project modifications agreed to by both the Corps and the Users Board.

After reviewing alternative options for generating additional revenues for the IWTF, the CIS Team proposes a 30% to 45% increase---between 6 and 9 cents per gallon ---in the current user fee that commercial users of the system pay (i.e., to a level between 26 and 29 cents per gallon). The Team reached this conclusion based on its sense that the current diesel tax revenue-raising system is fair and equitable and is a “workable, understood, acceptable, and auditable system for collecting the waterways industry’s share of the IMTS capitalization costs”. While the industry representatives of the CIS Team clearly would have preferred to avoid this increase, it is a measure of the seriousness and spirit of compromise that they brought to the CIS Team effort that they were willing to agree in an unprecedented way to this increase as part of the total comprehensive package.

Under the Team’s proposal, project construction funding would be provided to complete a prioritized list of specific projects. The projects were prioritized through use of a ranking system that was based on two broad categories: structural and operational risk and reliability and economic return. Project-by-project information was used that sought to assess the project’s current condition, the likelihood of diminished project performance, the consequence of diminished performance, and how the proposed investment would improve the project’s and the system’s performance. Prioritization occurred in three categories---authorized and under construction, authorized but not yet under construction, and other potential projects most of

which were completely unstudied. In making its recommendations, the Team emphasized completing work that was already underway or was un-started but had already been approved by Congress.

To address the opportunity to improve internal Corps project delivery performance, the CIS Team makes a number of recommendations. Some of these recommendations are already in the process of being implemented. Others will require additional review within the Corps before they can be implemented. At least one project delivery recommendation, relating to the use of continuing contracts in the construction of inland waterways system modernization projects, may require Congressional action before it can be implemented. The project delivery improvement recommendations cover items such as:

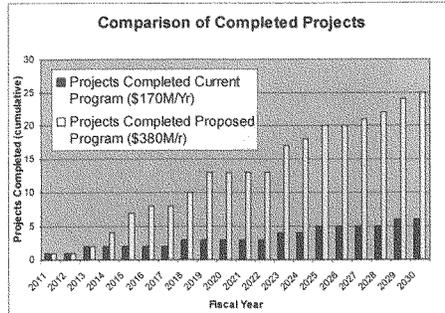
- Highly-reliable risk-based cost estimates,
- Independent external peer reviews,
- Certification requirements for project managers,
- Development of an IMTS Capital Investment Program regulation,
- Increased participation by the Inland Waterways Users Board,
- Use of Military Construction Program efficiency approaches,
- Acquisition strategy advances,
- Virtual design and review centers of expertise, and
- Standardization of designs.

The Team's report covers each of these and others in more detail.

A fundamental assumption of the Team's recommendations, in fact the Team's underlying premise, is that the federal government will provide the funds envisioned in the plan in an efficient manner. Inefficient funding will significantly impair the ability to implement this program. This point cannot be over-emphasized. It is critically important.

Mister Chairman, and Members of the Subcommittee, the Corps has conservatively estimated that the CIS Team's proposed plan is expected to avoid cost growth of between \$600 million and \$2.1 billion over the defined 20-year program. We believe this estimate may significantly understate the amount of cost growth that will be avoided over that timeframe. In addition, other economic benefits of implementing the proposed plan include avoiding far more than \$2.8 billion in additional national economic development benefits foregone. The \$2.8 billion Corps-estimated figure was calculated looking only at projects currently under construction and does not include, as it should in order to more completely reflect the entire plan, the value of beginning other projects under the proposed program much earlier than otherwise would be possible. And, of course, the plan would also deliver the additional non-economic environmental, societal, safety and energy benefits that accrue to the nation because of the inland waterway system's use.

Under the proposed CIS Team plan, significant modernization of the inland waterway system will occur. Without the plan, necessary achievable progress completing lock and dam and channel improvement projects will languish, dangerously threatening our nation's well being. The following chart, taken from the Team's report, starkly illustrates that reality.



The CIS Team concludes its report with these words: “While unlikely that any set of recommended improvements could completely eliminate cost increases and schedule delays, these recommended improvements---in combination with the development of the capital investment strategy and with the underlying premise that the funding will be provided in an efficient manner---will achieve the goal of an improved capital projects business model”.

Crouse Corporation and the Inland Waterways Users Board believe that statement to be true and urge this Committee to enact as quickly as possible the provisions that are necessary to fully implement this comprehensive inland waterway system modernization plan. We also believe that, when the Committee acts in this fashion, it will be following the incredible, almost-prayerful insight of our first President, George Washington, who wrote 218 years ago:

“Prompted by these observations, I could not help taking a more contemplative and extensive view of the vast inland navigation of these United States, from maps and the information of others; and could not but be struck with the immense diffusion and importance of it, and with the goodness of that Providence, which has dealt her favors to us so profuse a hand. Would to God we may have wisdom enough to improve them.”

ATTACHMENT A



The American Waterways Operators



Support the Inland Waterways Capital Development Plan *Invest in America's Inland Waterways Transportation System*

Benefits to America

America's inland waterways are a precious resource, and the envy of the world because of the natural "water highway" the waterways system provides for commerce. Modern lock and dam infrastructure is critical to U.S. competitiveness in the world market, to environmental protection, to energy efficiency, to the sustainment of well-paying American jobs and to congestion relief. Inland waterways transportation is a key component of the intermodal transportation network, and is essential to our nation's economy, environment, and quality of life.

A Consensus Plan to Improve Inland Waterways Navigation Infrastructure

Industry and the U.S. Army Corps of Engineers worked together for 18 months to develop a comprehensive, consensus package of recommendations to improve the continued vitality of this critical system. The Capital Development Plan, unanimously endorsed by the congressionally established Inland Waterways Users Board on April 13, 2010, will:

- **Prioritize the completion of navigation projects across the entire system,**
- **Improve the Corps of Engineers' project management and processes to deliver projects on time and on budget, and**
- **Recommend an affordable funding mechanism to meet the system's needs.**

The Plan represents a new approach to meet the longstanding need for efficient delivery and timely completion of critical projects and sustainable funding for the Inland Waterways Trust Fund. The nation's transportation system and taxpayers would benefit from the completion of essential navigation infrastructure and the containment of cost overruns.

Recommended Reforms

The proposal would:

- Preserve the existing 50% industry/50% federal cost-sharing formula for new lock construction and major lock rehabilitation projects costing \$100 million or more.
- Adjust the current model to provide 100% federal funding for dam construction and major rehabilitation and smaller lock rehabilitation projects, recognizing the value derived by other beneficiaries from dams and the pools created by dams.
- Include a cost share cap on new lock construction projects to incentivize keeping projects on budget and prevent industry taxpayers from bearing the burden of paying for unreasonable cost overruns. This will strengthen the ability of the Inland Waterways Trust Fund to fund more priority projects in the pipeline.

The proposed new funding parameters will necessitate a 30% to 45% increase (between 6 and 9 cents per gallon) in the existing fuel tax of 20-cents-per-gallon that is paid by the barge and towing industry, the only users of the system who currently are taxed. At the same time, the recommended reforms to the Corps of Engineers' project management and delivery process would ensure that these additional resources are spent wisely.

Endorsements

On January 12, 2010, the Board of Directors of Waterways Council, Inc., the national public policy organization advocating a modern and well-maintained national system of ports and inland waterways, voted unanimously to support the recommendations of this industry-Corps joint effort.

On January 22, the Board of Directors of The American Waterways Operators, the national trade association for the American tugboat, towboat and barge industry, voted to authorize AWO to advocate before the Administration and Congress in favor of the recommended plan.

On February 24, 2010, the Board of Directors of the National Waterways Conference, Inc., the national organization advocating for the enactment of common-sense policies recognizing the widespread public benefits of our nation's water resources infrastructure, voted unanimously to support the plan.

The more than 200 organizations on the following page join us in supporting this important effort:

Supporters of the Inland Waterways Capital Development Plan

National Organizations

The American Waterways Operators Waterways Council, Inc.	National Association of Manufacturers
National Waterways Conference, Inc.	National Audubon Society
National Corn Growers Association	American Agri-Women
National Council of Farmer Cooperatives	American Land Conservancy
National Grain and Feed Association	American Soybean Association
National Mining Association	Dredging Contractors of America
North American Equipment Dealers Association	Inland Rivers Ports & Terminals, Inc
Steel Manufacturers Association	International Liquid Terminals Association
Transportation Research Board/Marine Board	The International Propeller Club of the United States
	U.S. Chamber of Commerce

State, Regional, and Local Organizations

Alabama State Port Authority	Jersey County (Ill.) Farm Bureau
Association of Tennessee Valley Governments	Kane County (Ill.) Farm Bureau
Bond County (Ill.) Farm Bureau	Kendall County (Ill.) Farm Bureau
Boone County (Ill.) Farm Bureau	Kentuckians for Better Transportation
Bureau County (Ill.) Farm Bureau	Kentucky Chamber of Commerce
Calhoun County (Ill.) Farm Bureau	Kentucky Corn Growers
California Marine Affairs & Navigation Conf. (CMANC)	Kingdom of Callaway (Mo.) Chamber of Commerce
Carpenters' Dist. Council of Greater St. Louis and Vicinity	Knox County (Ill.) Farm Bureau
Carroll County (Ill.) Farm Bureau	LaSalle County (Ill.) Farm Bureau
Chemical Industry Council of Illinois	Lee County (Ill.) Farm Bureau
City of Pittsfield, Ill.	Little Rock Port Authority
Clark County (Ill.) Farm Bureau	Louisiana Assn. of Waterway Operators & Shipyards
Coalition of Alabama Waterway Associations, Inc.	Macon County (Ill.) Farm Bureau
Cook County (Ill.) Farm Bureau	Marshall-Putnam (Ill.) Farm Bureau
Coosa-Alabama River Improvement Association, Inc.	Mason County (Ill.) Farm Bureau
DeWitt (Mo.) Drainage and Levee District	McLean County (Ill.) Farm Bureau
DeWitt County (Ill.) Farm Bureau	McDonough County (Ill.) Farm Bureau
Show-Me-State Black Ducks Chapter, Ducks Unlimited	Menard County (Ill.) Farm Bureau
DuPage County (Ill.) Farm Bureau	Mercer County (Ill.) Farm Bureau
Effingham County (Ill.) Farm Bureau	MidCentral Illinois Regional Council of Carpenters
Farm Resource Center	Minnesota Chapter of ASFMRA
Grain & Feed Association of Illinois	Minnesota Corn Growers Association
Great River Economic Development Foundation	Minnesota Grain and Feed Association
Greene County (Ill.) Farm Bureau	Mississippi Water Resources Association
Gulf Intracoastal Canal Association	Missouri Corn Growers Association
Hancock County (Ill.) Farm Bureau	Missouri Levee & Drainage District Association
Huntington District Waterways Association	Mo-Ark Association
Illinois AgriWomen	Montgomery County (Ill.) Farm Bureau
Illinois Association of Drainage Districts	Ogle County (Ill.) Farm Bureau

Illinois Biotechnology Industry Organization
 Illinois Corn Growers Association
 Illinois Farm Bureau
 Illinois Fertilizer & Chemical Association
 Illinois Grape Growers & Vintners Association
 Illinois Seed Trade Association
 Illinois Soc. of Prof. Farm Managers and Rural Appraisers
 Illinois Soybean Association
 Indiana Corn Growers Association
 Indiana Soybean Alliance
 International Union of Operating Engineers Local 513
 Iowa Corn Growers Association
 Jasper County (Ill.) Farm Bureau
 Jersey County (Ill.) Business Association
 Red River Valley Association
 Rosedale-Bolivar County (Miss.) Port Commission
 Sangamon County (Ill.) Farm Bureau
 Shelby County (Ill.) Farm Bureau
 Southern Illinois Builders Association
 Southern Illinois Construction Advancement Program
 Stark County Farm (Ill.) Bureau
 Stephenson County (Ill.) Farm Bureau
 Ohio Corn Growers Association
 Pacific Northwest Waterways Association (PNWA)
 Paducah Area Chamber of Commerce
 Peoria County (Ill.) Farm Bureau
 Pery County (Ill.) Farm Bureau
 Pike and Scott County (Ill.) Farm Bureaus
 Plumbers and Pipefitters Local 562 (St. Louis)
 Port of Cincinnati, LLC
 Port of Delcambre, LA
 Port of Houston Authority
 Board of Commissioners of the Port of New Orleans
 Port of Pittsburgh Commission
 Port of Portland (Oregon)
 Port of Vancouver, WA
 Rock Island County (Ill.) Farm Bureau
 Tennessee Cumberland Waterways Council
 Tennessee River Valley Association
 Tennessee-Tombigbee Waterway Develop. Auth.
 Tennessee-Tombigbee Waterway Develop. Council
 Texas Waterways Operators Association
 Texas Agri Women
 Tri Rivers Waterway Development Assoc.
 Tri-State Development Summit
 Tulsa Port of Catoosa
 Twin Parish Port Comm.
 Upper Mississippi Waterway Association
 Upper Mississippi, Illinois & Missouri Rivers Assn.
 Warrior-Tombigbee Waterway Association
 Washington County (Ill.) Farm Bureau
 Waterways Association of Pittsburgh
 Whiteside County (Ill.) Farm Bureau
 Will County (Ill.) Farm Bureau

Companies

Advantus Strategies, LLC
 AEP River Operations
 Ag-Land FS, Inc.
 Agriservices Of Brunswick, LLC
 Alter Barge Line, Inc.
 American Commercial Lines
 American Inland Ports, LLC
 American River Transportation Company
 Amherst Madison, Inc.
 Artco Fleeting Service
 B&G Towing LLC/Acme Marine LLC
 Bayou Fleet Inc.
 Bludworth Marine LLC
 Blue Danube Incorporated
 Bob Brackmann Farms
 Brennan Marine, Inc.
 Brunswick River Terminal, Inc.
 Buffalo Marine Service, Inc.
 Bunge North America
 C&C Marina Maintenance Company
 Campbell Transportation Company
 Holcim (US) Inc.
 Ingram Barge Company
 Inland Marine Service
 The Integra Group, Inc.
 J.A.M. Marine Services, LLC
 Kirby Corporation
 K-Sea Transportation Partners LP
 Lafayette Workboat Rentals, LLC
 LeBeouf Bros. Towing, LLC
 Magnolia Marine Transport Co.
 Marathon Petroleum Company LLC
 MARMAC, LLC d/b/a McDonough Marine Service
 Marquette Transportation Company, LLC
 Martin Marine
 McNational Inc.
 Mulzer Crushed Stone
 Natures Way Marine, LLC
 New Orleans Shipyard
 Northern Partners Cooperative
 Nucor Steel Tuscaloosa, Inc.
 Osterholt Farms

Canal Barge Company, Inc.
Cargill, Inc.
CF Industries Holdings, Inc.
CGB Enterprises, Inc.
Channel Shipyard Companies
CHS Inc.
Cincinnati Bulk Terminals, LLC
CITGO Petroleum Corporation
Clarkson Grain Company Inc.
Colusa Elevator
CONSOL Energy
Cooper T Smith
Deloach Marine
E.ON U.S.
Farm Credit Services of Illinois
FirstEnergy Solutions
Grain Processing Corporation
GROWMARK
Hartsburg Grain Company
Hodel Farms Inc.
Hines Furlong Line, Inc.

Parker Towing Company
PowerSouth Energy Cooperative
Rentech Energy Midwest
Sause Bros., Inc.
Servco FS Cooperative
Smurfit Stone Container Corporation
T & T Marine Salvage, Inc.
Thomson, Rhodes & Cowie P.C.
Tidewater Barge Lines, Inc.
TPG Marine Enterprises, LLC
TradeWinds Towing LLC
Crouse Corporation
Trinity Marine Products, Inc.
Twomey Company
Turn Services, LLC
United Ocean Services
Upper River Services LLC
Valero Energy
Volunteer Barge & Transport Inc.
Vulcan Materials Company
The Waterways Journal, Inc.
Yager Materials, LLC

Updated 7-13-11

ATTACHMENT B

**INLAND WATERWAYS USERS BOARD
23rd ANNUAL REPORT
TO THE
SECRETARY OF THE ARMY
AND THE
UNITED STATES CONGRESS
WITH APPENDIXES**

AUGUST 2009

"Prompted by these observations, I could not help taking a more contemplative and extensive view of the vast inland navigation of these United States, from maps and the information of others; and could not but be struck with the immense diffusion and importance of it, and with the goodness of that Providence, which has dealt her labors to us so profuse a hand. Would to God we may have wisdom enough to improve them."

George Washington
From his letter to the Chevalier de Chastellux
ca 1783

Inland Waterways Users Board Members

Chairman

**Mr. Stephen D. Little
Crouse Corporation
Paducah, Kentucky**

Vice Chairman

**Mr. Daniel T. Martin
Ingram Barge Company
Nashville, Tennessee**

Members

**Mr. Richard Calhoun
Cargill Marine and Terminal, Inc.
Minneapolis, Minnesota**

**Mr. Larry R. Daily
Alter Barge Line, Inc.
Bettendorf, Iowa**

**Mr. Michael W. Hennessey
CONSOL Energy, Inc.
Monessen, Pennsylvania**

**Mr. Mark K. Knoy
AEP River Operations LLC
Chesterfield, Missouri**

**Mr. Tim Parker
Parker Towing Company, Inc.
Tuscaloosa, Alabama**

Members continued

Mr. John Pigott
Tidewater Barge Lines
Vancouver, Washington

Mr. Michael P. Ryan
American Commercial Lines LLC (ACL)
Jeffersonville, Indiana

Mr. W. Matthew Woodruff
Kirby Corporation
Houston, Texas

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**Inland Waterways Users Board
23rd Annual Report
August 2009**

The Inland Waterways Users Board (the Board) is a Federal advisory committee established by Congress under Section 302 of the Water Resources Development Act of 1986 (WRDA of 1986), Public Law 99-662 dated November 17, 1986, to make recommendations on construction and rehabilitation projects on the inland waterways of the United States. This is the annual report for 2009.

Excerpts from President Barack Obama's Memorandum for the Heads of Executive Departments and Agencies, January 21, 2009.

Government should be participatory. Public engagement enhances the Government's effectiveness and improves the quality of its decisions. Knowledge is widely dispersed in society, and public officials benefit from having access to that dispersed knowledge. Executive departments and agencies should offer Americans increased opportunities to participate in policymaking and to provide their Government with the benefits of their collective expertise and information. Executive departments and agencies should also solicit public input on how we can increase and improve opportunities for public participation in Government.

Government should be collaborative. Collaboration actively engages Americans in the work of their Government. Executive departments and agencies should use innovative tools, methods, and systems to cooperate among themselves, across all levels of Government, and with nonprofit organizations, businesses, and individuals in the private sector. Executive departments and agencies should solicit public feedback to assess and improve their level of collaboration and to identify new opportunities for cooperation.

The Inland Waterways Users Board is currently working with representatives of the U. S. Army Corps of Engineers (the Corps) in an intensive ongoing effort to identify ways to improve the Corps project delivery model. This working group is known as the Inland Marine Transportation System Investment Strategy Team (IMTS Team). Broadly speaking, the IMTS Team will seek to:

- 1) Identify ways to improve the project delivery system (more reliable estimates, better contracting practices, improved project management, etc) in order to ensure that future projects can be completed on time and within budget;
- 2) Develop a list of long-term capital needs for the inland navigation system, including an objective methodology to prioritize those needs;
- 3) Develop reliable estimates for the costs of those system needs; and
- 4) Develop and jointly recommend a strategy to help ensure that those funding requirements can be met with reasonable certainty and efficiency.

It is the Board's expectation that the IMTS Team's final consensus-based recommendations will reflect the team's best thinking, unencumbered by any existing Corps policies or practices nor constrained by current or past Administration positions.

Broken Business Model

The comprehensive review by the IMTS Team is necessitated because the present business model is broken. As highlighted in previous Board reports and elsewhere:

- The design life of our locks and dams is generally 50 years. The majority of our locks have exceeded that – many are more than 70 years old.
- The United States Maritime Administration projects dramatic growth of domestic freight volumes, which will compound the congestion problems on the nation's already overcrowded highway system.
- Enormous project cost overruns and delays in project schedules have greatly strained the Inland Waterways Trust Fund balance. Meanwhile, the benefits foregone (by virtue of not having the use of completed projects) continue to escalate.
- Project completion delays result, (at least in part) from a Federal budgeting and appropriations model that provides funding in annual and often-insufficient increments rather than a more reliable multi-year funding mechanism that would provide the certainty needed to more efficiently contract and build these capital projects.
- In the not-too-distant past, projects (such as those authorized by the Water Resources Development Act of 1986, P.L. 99-662) were completed within an average of 6.3 years and with an average increase of 32.5% of authorized costs; compared to the present day projects under construction that are more than double authorized amounts and require more than 17 years to complete.
- Another truly startling example of the contrast between today's project delivery performance and yesteryear's, is McAlpine Locks and Dam (Louisville, KY). The recently dedicated 1200' lock chamber took 10 years to complete. The virtually identical lock chamber sitting next to it was constructed in just 3 years (1958-1961).

Inland Navigation Stakeholders Call For A Review (The Selected Case Studies)

In June 2007, the inland navigation stakeholders requested the Corps undertake a review and comparison of the cost escalation and schedule delays associated with three of the then-current cost-shared inland navigation construction projects (Marmet Locks and Dam, Lower Monongahela Locks and Dams 2, 3, and 4 and Oimsted Locks and Dam). The Corps agreed to conduct such a review and completed and delivered the Selected Case Studies to the Board in July 2008. The study revealed a number of principal reasons to help explain the enormous cost

escalation. They include delay-caused inflation, government design changes, design omissions, re-estimates and differing site conditions encountered during construction. The Corps estimates the non-inflationary reasons account for about 61% of the cost growth on the Lower Monongahela project and about 69% of the cost growth on the Olmsted project. The Corps agrees that these findings highlight the need for process improvements in engineering, construction and project management. The Board notes that in general, the private sector spends far less time studying and building potential projects and completes their evaluation process with a far more accurate assessment of the scope of work, site conditions and project cost. While the Board is mindful that the Corps faces constraints and limitations not found in the private sector, to the extent these constraints and limitations are costing the nation money without providing offsetting value, they should be eliminated.

There is an inherent inequity in a process where two "partners" split project costs based on one partner's estimate, yet the other partner pays half of the escalating costs if the estimate proves faulty. This inequitable arrangement provides no incentive to develop accurate cost estimates. In fact, it may encourage lower estimates that improve project cost benefit ratios, which in turn may cause one partner (in this case those paying the inland waterway fuel tax, not to mention the general taxpayer) to proceed with projects that might otherwise have not advanced if a more accurate cost estimate had been available.

The Selected Case Studies report also concluded that "less than optimal funding" accounted for about 32% of the cost growth for two projects (Lower Monongahela and Olmsted). While the Board applauds the Corps for its review, we believe that their estimated cost increases (while dramatic) nevertheless understate the total cost of these increases. The Corps report identifies the increases in terms of 2007 constant dollars. However, if the projects had been completed earlier, as estimated, then the total construction costs would have been much lower because the cost of construction materials was much cheaper. There were certainly ample Inland Waterways Trust Fund dollars available in the mid-to-late 1990's and early 2000's. Earlier completion of Olmsted and the Lower Monongahela projects would have produced significant construction cost savings in addition to the fact that the nation would have benefited from the transportation cost savings that were originally projected to be provided by the finished projects.

ARRA Funding: Welcome, but Short-Term, Band-Aid

President Obama signed into law the American Recovery and Reinvestment Act of 2009 on February 17th. The stated intent of the legislation was to stimulate recovery of the U. S. economy.

For the Corps Civil Works Program, the Act included \$4.6 billion in funding. Of that, \$2.0 billion is for construction projects and \$2.075 billion is for operations and maintenance activities nationwide. Appropriations are also included for the Mississippi River and Tributaries (MR&T) account and other accounts. Within the construction project category, at least \$403.1 million is allocated to inland waterway system lock and dam modernization projects. Significantly, the ARRA funding provided for the inland waterway lock and dam construction and major rehabilitation projects does not require cost-sharing from the Inland Waterways Trust Fund.

The Board took an active role in expressing its strong belief to Congress and to the Corps that the inland navigation system's projects deserved to be considered as high priorities as decisions were being made regarding the development of stimulus legislation and the subsequent allocation of funds (see attached letters in Appendix 3). The Board is heartened by the ARRA funding that is already allocated for inland construction projects. Although much more spending could be justified, this is a significant sum that will further some much needed work. We commend the Corps for their successful efforts within the Administration to demonstrate the urgent need for these funds. We urge the Corps to continue to expedite the expenditure of these funds in such a fashion that will advance the completion dates of the projects.

The Path Forward

During the July 2008 Board Meeting Number 58 in Walla Walla, Washington, the Corps reported on the findings contained in the Selected Case Studies report. The Corps acknowledged shortcomings in a number of their current processes and the need for improvements. Mr. Gary Loew (Chief, Programs Integration Division, Corps Civil Works Directorate), also recommended the Board should be more directly involved in the development of an improved project delivery model. Thus, the IMTS Team was formed and it began the present effort.

The Board wishes to commend the Corps for its candor in acknowledging that changes are needed, as well as for its vision to initiate the collaborative effort of the IMTS Team to develop a long term, comprehensive, consensus-based strategy to better prioritize, manage and fund the capital construction needs of our nation's inland navigation system.

While the Board is acutely aware that the present low balance in the Inland Waterways Trust Fund has slowed down needed work on projects, we are also certain that the failure of our present project delivery model is not solely caused by a lack of sufficient Inland Waterways Trust Fund dollars. Essential systemic and policy changes must be addressed as we move forward. Some of these needed changes will require shifts in the way government (Executive Branch and Congress) operates. We will not resolve today's project delivery problems by merely increasing the industry's tax burden. If all we do is raise the industry's taxes, then we are destined to repeat today's mistakes, albeit perhaps at a faster, more expensive pace. We are also very mindful of the fact that history has shown that available trust fund balances have not always translated into greater investments in desperately needed projects. In the recent past, projects have languished while the trust fund balances increased. Even today, the balance continues to grow in the Harbor Maintenance Trust Fund which was established to pay for maintenance of port and harbor channels, even though many needed harbor maintenance projects remain unfunded. This suggests to the Board that merely raising more revenue is not the answer, unless it is coupled with dramatic process change at all levels of government.

Unfortunately, the constructive efforts which began with the initiation of the Selected Case Studies and then followed by the IMTS Team efforts have been complicated by the distraction of the Administration's ill-conceived lockage fee proposal. This concept is devoid of any persuasive basis in rational economic theory. Further, it contradicts a basic tenet held for the

past 200 years by nation's waterways policy, which has long recognized that the benefits of the entire system are not just local in nature, but inure to the nation as a whole.

The Board could point out more shortcomings of the lockage fee concept. However, to do so might have the unintended effect of suggesting that it is an idea worthy of serious consideration. It is not.

The Board is quite mindful of the stressed economic situation faced by many of the carriers on the inland waterways who are the payers of the taxes supporting the Inland Waterways Trust Fund. The economic downturn has impacted virtually all carriers to some degree, many to a profound degree. Many companies have boats and barges tied up and employees laid off due to the worst national economic conditions in seven decades. Doubling or tripling their tax burden, however the tax is assessed, is not a good way to ensure the survival of these companies and preserve the employment of their remaining workforces. Compared to rail and truck, inland marine transportation is the most fuel efficient, clean and greenhouse gas friendly way to move the nation's cargo. We should be looking for ways to incentivize more shippers to take advantage of our existing waterways capacity rather than considering an inequitable tax regime that will drive cargo to less efficient modes.

Collectively, the inland barge industry is a small industry whose ability to pay for the nation's lock and dam system is limited. Much of the industry is privately held, making financial comparisons difficult, but an extrapolation of the operating revenues of the publicly traded barge lines suggest that overall industry operating revenue is but a small fraction of the \$54.6 billion that the American Association of Railroads reported for America's Class I railroads in 2007. A question policymakers must address is whether it even makes sense to expect this industry to fund half the cost of new construction and major rehabilitation projects on our nation's inland waterways, much less bear half the price of the cost overruns resulting from inefficient construction and funding practices on the part of the government. While our inland waterways certainly benefit navigation and it is fitting for navigation to contribute to their future, there are a host of non-navigation beneficiaries who benefit from the existence of this infrastructure. Funding decisions must recognize the reality of the industry's small size and limited resources and appreciate the significant economic and social benefits that accrue to the nation because of barge transportation.

Recommendations

The Board strongly urges the development of a long term public policy that truly recognizes the importance of our navigation system and adopts an investment policy that reflects that vision. A comprehensive approach is urgently needed to outline the compelling national interest in the funding and construction of our most environmentally friendly and economically efficient mode of transportation. The Board believes that the efforts of the IMTS Team offer the best path to this goal and that the Congress and the Administration should support the work of this team and take no action until the team has had a reasonable opportunity to complete its work and make its recommendations.

As Congress and the Administration (as well as the IMTS Team) continue to reflect on how best to fashion a workable policy that furthers these national goals, the Board respectfully offers the following observations and ideas for consideration.

- Congress must provide adequate, uninterrupted funding for waterways projects to eliminate the inefficiencies of start-and-stop construction that result from the current “annual” appropriation method which often provides less-than-optimal amounts for individual projects and is generally punctuated with continuing resolutions and other uncertainties. Once we decide to commence a project, we cannot hope to complete it in on time or on budget if adequate funding is not assured.
- There must be continual improvement to the Corps project delivery model. The focus should be on productive project management through full and efficient funding.
- Projects currently under construction or almost ready to begin construction will require approximately \$7.0 billion to complete. If one assumes current Inland Waterways Trust Fund projected revenue levels, plus the current matching federal appropriation levels, it will take more than 40 years to complete these projects.
- In order to adequately address these capital needs, we must take a more creative approach. Similarly, the Corps must take creative steps to efficiently manage the construction process – on time and within budget.
- By even the most generous of interpretations, construction costs and schedule delays for some of the navigation projects (principally Olmsted and Lower Monongahela) are staggering. To date, 50 percent of these excessive costs have been borne by the industry. That is enough. Going forward for both ongoing and future projects, the Inland Waterways Trust Fund cost shared project share should be limited to 50 percent of the projects’ original Congressionally authorized amount. This will provide an incentive for accurate cost estimating.
- In recognition of the multiple non-commercial navigational beneficiaries of the inland waterways system and the many benefits of barge transportation, the allocation of costs between the inland towing industry and the Federal government should be adjusted. For example, the dam portion of project costs should be excluded from the Inland Waterways Trust Fund cost sharing formula. Also, Inland Waterways Trust Fund cost sharing of lock and dam major rehabilitation projects provides a financial incentive to defer maintenance to the point a “major rehabilitation” is required for continued operation of a facility. The decision to allow Inland Waterways Trust Fund contributions for major rehabilitation projects should be rescinded.
- Policymakers should re-evaluate current cost sharing requirements. Is it sensible to rely upon one very small industry to match dollar-for-dollar the Federal government’s capital investment in our Nation’s inland waterways infrastructure, given the vast environmental and societal benefits provided by the inland waterways system?

Because this annual report is being issued as Congress progresses towards a conference on the FY 2010 Energy and Water Development Appropriations bill, the recommendations contained in Table 1 were formulated with a view towards the status of Congress' action to date. These recommendations also reflect the Board's recognition that significant funding is being provided through FY 2010 for inland waterways modernization projects pursuant to the ARRA funding.

Table 1. Inland Waterways Users Board Priority Projects

Name	Recommended Funding FY 2010 (\$million)	States Directly Impacted	Economic Impact To Each State
PRIORITY CONSTRUCTION and MAJOR REHABILITATION PROJECTS			
Olmsted Locks and Dam, Illinois and Kentucky (Const)	\$109.79	LA, KY, OH, WV, IL, IN, PA, TN, MO, AR, TX, MS, AL, FL, IA, OK, MN, WI, KS, NE	90 million tons, valued at \$18.8 billion serving 20 states
Monongahela River Locks and Dams 2, 3, and 4, Pennsylvania (Const)	\$6.21	PA, WV, OH, KY, IN, IL, MO, TN, LA, AR, MS, AL, TX, OK, IA	20 million tons valued at \$1.6 billion serving 15 states
Kentucky Locks and Dam, Kentucky (Const)	\$1.0	TN, KY, IL, LA, WV, PA, IN, OH, MO, AL, MS, AR, IA, TX, MN, WI, OK, FL, NE, KS	32 million tons valued at \$4.5 billion serving 20 states
Markland Locks and Dam, Kentucky (Major Rehab)	\$1.0	KY, LA, OH, WV, IL, IN, PA, TN, MO, AR, TX, MS, AL, FL, IA, OK, MN, WI	53 million tons valued at \$13.2 billion serving 18 states
Emsworth Locks and Dam, Ohio River, Pennsylvania (Dam Safety Static Instability)	\$25.0	PA, WV, OH, KY, IN, IL, MO, TN, LA, AR, MS, AL, TX, OK, IA	21 million tons valued at \$2.3 billion serving at least 15 states
Inner Harbor Navigation Canal Lock, Louisiana (Const)	\$0.0	LA, MS, AL, FL, TX, AR, TN, MO, KY, IL, IN, OH, WV, PA, IA, MN	13 million tons valued at over \$8.4 billion for 16 states
Chickamauga Lock and Dam, Tennessee River, Tennessee (Const)	\$15.0	TN, KY, AL, IN, WV, PA, LA, AR, TX, MO, IL, OK	1 million tons valued at \$373 million serving 12 states

Name	Recommended Funding FY 2010 (\$million)	States Directly Impacted	Economic Impact To Each State
Lower Monumental Lock, Lower Snake River, Washington (Const)	\$6.74	WA, OR, ID, MT, ND	3.3 million tons valued at \$880 million serving 5 states
John T. Myers Locks and Dam, Ohio River, Indiana and Kentucky (Const)	\$0.0	TN, KY, IL, LA, WV, PA, IN, OH, MO, AL, MS, AR, IA, TX, MN, WI, OK, FL	70 million tons valued at \$15.5 billion serving 18 states
PRIORITY PED PROJECTS and STUDIES			
Upper Mississippi River and Illinois Waterway Navigation, Illinois, Iowa, Minnesota, Missouri, and Wisconsin (NESP) (PED)	\$9.0	LA, MO, IL, IA, MN, WI, KY, AL, TN, TX, WV, IN, PA, OH, MS, AR, KS, NE	117 million tons valued at \$27 billion serving 18 states
Greenup Locks and Dam, Ohio River, Kentucky and Ohio (PED)	\$1.0	TN, KY, IL, LA, WV, PA, IN, OH, MO, AL, MS, AR, IA, TX, MN, WI, OK, FL	60 million tons valued at \$13.5 billion serving 18 states
Bayou Sorrel Lock, Intracoastal Waterway, Louisiana (PED)	\$1.24	TX, LA, MS, AR, OK, TN, KY, MO, IL, IN, OH, WV, PA, IA, MN	23 million tons valued at \$15.7 billion serving at least 15 states
Calcasieu Lock, Intracoastal Waterway, Louisiana (Study)	\$1.0	TX, LA, MS, AL, FL, AR, OK, TN, KY, MO, IL, IN, OH, WV, PA, IA, MN	38 million tons valued at \$30.6 billion serving at least 17 states
Upper Ohio River Navigation, PA (Study)	\$1.7	PA, WV, OH, KY, IN, IL, MO, TN, LA, AR, MS, AL, TX, OK, IA	21 million tons valued at \$2.3 billion serving at least 15 states
Gulf Intracoastal Waterway (GIWW) High Island Realignments, Texas (Study)	\$0.2	TX	28.5 million tons valued at \$25.3 billion
Total for All Projects	\$178.88		

Acknowledgements

The Inland Waterways Users Board wishes to express its sincere appreciation to Major General Merdith "Bo" Temple, the U.S. Army Corps of Engineers Deputy Commanding General for Civil Works and Emergency Operations, and Executive Director to the Board, Mr. Mark R. Pointon from the Corps Directorate of Civil Works, the Executive Secretary to the Board, and Messrs. Kenneth E. Lichtman and David V. Grier from the Corps Institute for Water Resources for all the support they provide. Also, the Corps' division and district staffs and the staffs at Corps Headquarters and the Institute for Water Resources have provided thorough and timely information for the Board's use and have always tried to best answer the Board's tough questions.

Appendix A**History**

The Inland Waterways Fuel Tax was established to support inland waterway infrastructure development and rehabilitation. Commercial users are required to pay this tax on fuel consumed in inland waterway transportation. Revenues from the tax are deposited in the Inland Waterways Trust Fund and fund 50% of the cost of inland navigation projects each year as authorized. The amount of tax paid by commercial users is \$.20 per gallon of fuel. This tax rate generates approximately \$85 million in contributions annually to the Inland Waterways Trust Fund.

Reflecting the concept of "Users Pay, Users Say", the Water Resources Development Act of 1986 (Public Law 99-662) ("WRDA '86") established the Inland Waterways Users Board (the "Board"), a federal advisory committee, to give commercial users a strong voice in the investment decision-making they were supporting with their cost-sharing tax payments. The principal responsibility of the Board is to recommend to the Congress, the Secretary of the Army and the U.S. Army Corps of Engineers the prioritization of new and replacement inland navigation construction and major rehabilitation projects.

Appendix B**List of the Fuel Taxed Inland and Intracoastal Waterways and System Map****Statutory Definitions of Inland and Intracoastal Fuel Taxed Waterways of the United States**

SOURCES: Public Law 95-502, October 21, 1978, and Public Law 99-662, November 17, 1986.

1. Alabama-Coosa Rivers: From junction with the Tombigbee River at river mile (hereinafter referred to as RM) 0 to junction with Coosa River at RM 314.
2. Allegheny River: From confluence with the Monongahela River to form the Ohio River at RM 0 to the head of the existing project at East Brady, Pennsylvania, RM 72.
3. Apalachicola-Chattahoochee and Flint Rivers (ACF): Apalachicola River from mouth at Apalachicola Bay (intersection with the Gulf Intracoastal Waterway) RM 0 to junction with Chattahoochee and Flint Rivers at RM 107.8. Chattahoochee River from junction with Apalachicola and Flint Rivers at RM 0 to Columbus, Georgia at RM 155 and Flint River, from junction with Apalachicola and Chattahoochee Rivers at RM 0 to Bainbridge, Georgia, at RM 28.
4. Arkansas River (McClellan-Kerr Arkansas River Navigation System): From junction with Mississippi River at RM 0 to Port of Catoosa, Oklahoma, at RM 448.2.
5. Atchafalaya River: From RM 0 at its intersection with the Gulf Intracoastal Waterway at Morgan City, Louisiana, upstream to junction with Red River at RM 116.8.
6. Atlantic Intracoastal Waterway: Two inland waterway routes approximately paralleling the Atlantic coast between Norfolk, Virginia, and Miami, Florida, for 1,192 miles via both the Albemarle and Chesapeake Canal and Great Dismal Swamp Canal routes.
7. Black Warrior-Tombigbee-Mobile Rivers: Black Warrior River System from RM 2.9, Mobile River (at Chickasaw Creek) to confluence with Tombigbee River at RM 45. Tombigbee River (to Demopolis at RM 215.4) to port of Birmingham, RM's 374-411 and upstream to head of navigation on Mulberry Fork (RM 429.6), Locust Fork (RM 407.8), and Sipsey Fork (RM 430.4).
8. Columbia River (Columbia-Snake Rivers Inland Waterways): From the Dalles at RM 191.5 to Pasco, Washington (McNary Pool), at RM 330, Snake River from RM 0 at the mouth to RM 231.5 at Johnson Bar Landing, Idaho

9. **Cumberland River:** Junction with Ohio River at RM 0 to head of navigation, upstream to Carthage, Tennessee, at RM 313.5.
10. **Green and Barren Rivers:** Green River from junction with the Ohio River at RM 0 to head of navigation at RM 149.1.
11. **Gulf Intracoastal Waterway:** From St. Mark's River, Florida, to Brownsville, Texas, 1,134.5 miles.
12. **Illinois Waterway (Calumet-Sag Channel):** From the junction of the Illinois River with the Mississippi River RM 0 to Chicago Harbor at Lake Michigan, approximately RM 350.
13. **Kanawha River:** From junction with Ohio River at RM 0 to RM 90.6 at Deepwater, West Virginia.
14. **Kaskaskia River:** From junction with Mississippi River at RM 0 to RM 36.2 at Fayetteville, Illinois.
15. **Kentucky River:** From junction with Ohio River at RM 0 to confluence of Middle and North Forks at RM 258.6.
16. **Lower Mississippi River:** From Baton Rouge, Louisiana, RM 233.9 to Cairo, Illinois, RM 953.8.
17. **Upper Mississippi River:** From Cairo, Illinois, RM 953.8 to Minneapolis, Minnesota, RM 1,811.4.
18. **Missouri River:** From junction with Mississippi River at RM 0 to Sioux City, Iowa, at RM 734.8.
19. **Monongahela River:** From junction with Allegheny River to form the Ohio River at RM 0 to junction of the Tygart and West Fork Rivers, Fairmont, West Virginia, at RM 128.7.
20. **Ohio River:** From junction with the Mississippi River at RM 0 to junction of the Allegheny and Monongahela Rivers at Pittsburgh, Pennsylvania, at RM 981.
21. **Ouachita-Black Rivers:** From the mouth of the Black River at its junction with the Red River at RM 0 to RM 351 at Camden, Arkansas.
22. **Pearl River:** From junction of West Pearl River with the Rigolets at RM 0 to Bogalusa, Louisiana, RM 58.
23. **Red River:** From RM 0 to the mouth of Cypress Bayou at RM 236.

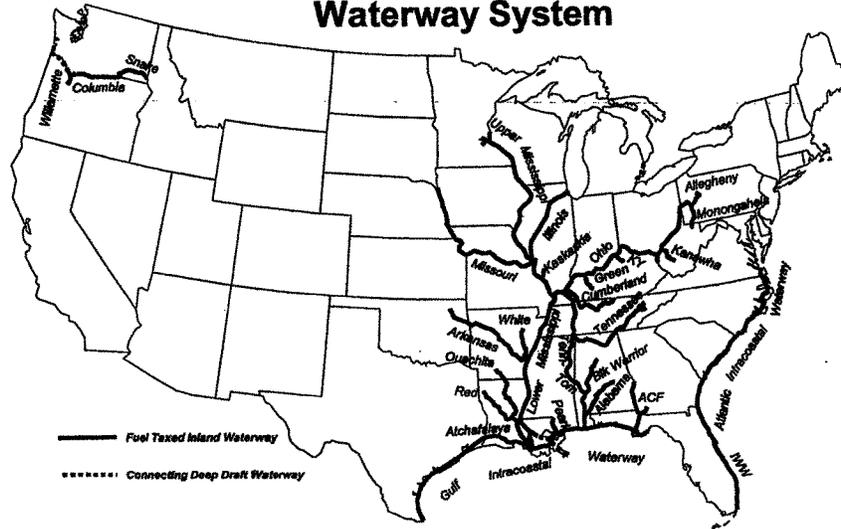
24. Tennessee River: From junction with Ohio River at RM 0 to confluence with Holstein and French Rivers at RM 652.

25. White River: From RM 9.8 to RM 255 at Newport, Arkansas.

26. Willamette River: From RM 21 upstream of Portland, Oregon, to Harrisburg, Oregon, at RM 194.

27. Tennessee-Tombigbee Waterway: From its confluence with the Tennessee River to the Warrior River at Demopolis, Tennessee

The Fuel-Taxed Inland and Intracoastal Waterway System



Appendix C

Letters from the Board to Senator James M. Inhofe and Mr. Gary A. Loew



INLAND WATERWAYS USERS BOARD
 Washington, D.C. 20514-1000 (CROW-7)

November 1, 2008

The Honorable James M. Inhofe
 Ranking Member
 Environment & Public Works
 United States Senate
 Washington, D. C. 20503-6256

Dear Ranking Member Inhofe:

I am writing as acting Chairman of the Inland Waterways Users Board, a 9 member independent federal advisory committee appointed by the Secretary of the Army. The message I bring to you today is that now is the time to invest in America's inland navigation infrastructure.

The Waterways Users Board prioritizes major lock and dam projects for construction on the inland waterways of the United States. Fortunately for the citizens of the United States our predecessors had the courage and foresight to support the original construction of locks and dams. The return to the country has far exceeded expectations. The bottom line is this has been a good investment.

The challenge to Board members is to prioritize projects for construction that yield the greatest return to the citizens of the United States of America. By nature these projects are massive construction projects. Many projects are replacing older structures that have outlived their originally engineered design lifetime of 50 years. Many factors are considered when prioritizing, such as economic return, critical failure consequences, environmental concerns, safety to the public and the navigation industry, pre-engineering and design time, and construction time, to name a few.

There are 257 navigation lock chambers at 212 sites that are operated by the federal government. Fortunately, depending on the criteria chosen, there are 16 to 18 projects authorized by Congress and vetted by the Corps of Engineers that only await an appropriation to begin or continue the construction process. For example, lock studies have been completed and authorization has occurred for the construction of modernized locks on the Upper Mississippi and Illinois Rivers. There are many other existing lock and dam modernization projects already underway waiting in the appropriations queue to be completed.

The May 2008 Inland Waterways Users Board 22nd Annual Report To The Secretary of the ARMY and the United States Congress the Board stated:

A Federal Advisory Committee Established by the Water Resources Development Act of 1986



INLAND WATERWAYS USERS BOARD
Washington, D.C. 20314-1000 (CICW-7)

"Although issues, such as trust funds and lock and dam construction, are not attractive they can be influential in economic recovery. Jobs are being created as a result of the projects being adequately funded. Investment means jobs and stimulates an economy."

Congress and the Administration recognize the importance of the inland waterways transportation system and the need to sustain and increase the reliability of this system, now and for our future. In its FY2009 budget request, the Administration asked Congress to fund 14 inland waterway system lock and dam modernization projects, including major rehabilitation projects, throughout the Nation. In the individual FY 2009 Energy and Water Development Appropriations bills that were approved by the House and Senate Appropriations Committees, but were not considered on the floor of either chamber prior to the pre-election recess, funding for all the Administration-requested lock and dam modernization projects was supported by either the House or Senate Appropriations Committees. Two additional modernization projects were added in one or the other Committee markup, bringing the total of Congressionally-supported lock and dam modernization projects to 16.

Estimates for expenditures on these 16 lock and dam modernization projects could productively and quickly use approximately \$1-\$1.5 billion above previously-anticipated FY2009 appropriations levels to expedite job-creating construction work associated with the projects. In addition another \$500 million above previously-anticipated FY2009 appropriations levels can be utilized immediately towards operations & maintenance ("O&M") work throughout the system. The total economic stimulus amount: \$1.5-\$2.0 billion for inland navigation. The full \$1.5-\$2.0 billion amount of stimulus funding needed for both lock and dam modernization and O&M should be provided in the economic stimulus bill at full federal expense to expedite this important inland waterway navigation system job-creating work.

We respectfully request that stimulus spending in the amount of \$1.5-\$2.0 billion for inland waterways infrastructure projects immediately be appropriated at full federal expense in the economic stimulus bill to generate tens of thousands of jobs along our nation's river system.



INLAND WATERWAYS USERS BOARD
Washington, D.C. 20514-1000 (OBOW-P)
Inland Waterways Users Board Members
2008

Members:

Chairman

Mr. Royce C. Wilton
American River Transportation Company
Decatur, Illinois

Mr. Rick Calhoun
Cargill Marine and Terminal, Inc.
Minneapolis, Minnesota

Mr. Stephen D. Little
Crouse Corporation
Paducah, Kentucky

Mr. W. Deane Orr
CONSOL Energy Inc.
Elizabeth, Pennsylvania

Mr. W. Matthew Woodruff
Kirby Corporation
Houston, Texas

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Mr. Jerry Grosslocke
Barnet Barge Lines
Portland, Oregon

Mr. Gerald Jenkins
Ursa Farmers Cooperative
Ursa, Illinois

Mr. Daniel T. Martin
Ingram Barge Company
Nashville, Tennessee

Mr. Tim Parker
Parker Towing Company,
Tuscaloosa, Alabama



INLAND WATERWAYS USERS BOARD
Washington, D.C. 20514-1000 (CEOW-4)

February 24, 2009

Mr. Gary A Loew
Chief, Program Integration Division
Directorate of Civil Works
U.S. Army Corps of Engineers
441 G Street, N.W.
Room 3B22
Washington, DC 20314-1000

Dear Gary:

Thank you for your presentation to the Users Board on Friday in Vicksburg, MS. We appreciate all of your hard work during the development of the stimulus legislation and your candor throughout the process. The stimulus money that has been allocated to the Corps of Engineers program represents a great opportunity to address some of the construction backlog that faces the inland navigation system. We believe that notwithstanding the five criteria enumerated in the conference report (and alluded to in your presentation), the legislation also directs the Corps to "maximize national benefits without regard to the business line..." It is our strongly held belief that the legislation provides the Corps of Engineers with ample authority to address the needs of our Inland Navigation System and the Corps of Engineers should seize that opportunity.

The Users Board stands ready to accept the invitation we heard in Vicksburg to participate in the review of these projects as the Corps determines its final allocation of resources. We interpret this invitation as a signal that the Corps is ready to work with the Users Board in a substantive and not just perfunctory manner.

Very truly yours,

cc: General Temple

A Federal Advisory Committee Established by the Water Resources Development Act of 1986

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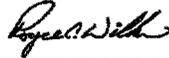
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FORM P-82

Inland Waterways Users Board Members
2008

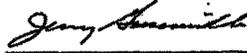
Members:

Chairman



Mr. Royce C. Wilton
American River Transportation Company
Decatur, Illinois

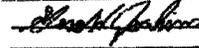
Vice Chairman



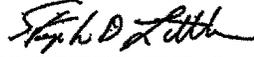
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Bemart Barge Lines
Portland, Oregon



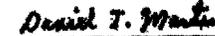
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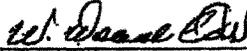
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Ursa, Illinois



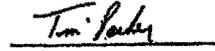
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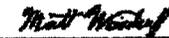
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Elizabeth, Pennsylvania



Mr. Tim Parker
Parker Towing Company
Tuscaloosa, Alabama



Mr. W. Matthew Woodruff
Kibby Corporation
Houston, Texas

FORM P-82

FORM P-82

FORM P-82

**STATEMENT OF MICHAEL J. TOOHEY
PRESIDENT AND CEO
OF
WATERWAYS COUNCIL, INC.
BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
UNITES STATES HOUSE OF REPRESENTATIVES
“The Economic Importance and Financing Challenges of Recapitalizing the
Nation’s Inland Waterway Transportation System”**

September 21, 2011

Mr. Chairman and Members of the Subcommittee:

I am Mike Toohey, President and CEO of Waterways Council, Inc. (WCI). WCI is the national public policy organization advocating a modern and well-maintained system of ports and inland waterways. Our membership consists of over 250 waterways carriers, shippers, port authorities, shipping associations, and waterway advocacy groups from all regions of the country.

Mr. Chairman, the inland waterways system is one of this country’s greatest assets. In fact, that system has been recognized as a matter of fundamental Federal responsibility and stewardship since the earliest days of our country’s existence. In advocating for the U.S. Constitution’s adoption, James Madison (in the Federalist No. 14) spoke of the general commercial advancement of the country, in furtherance of which “an interior navigation on our eastern side will be opened throughout, the whole extent of the thirteen states.” Alexander

Hamilton (in the Federalist No. 11) plainly pointed out that, without a Federal governing power, commercial “intercourse would be fettered, interrupted, and narrowed by a multiplicity of causes...”. Almost immediately after our U.S. Constitution was approved, one of the initial actions of the first Congress was enactment of legislation providing for Federal upkeep of the Nation’s navigational aids. Twenty-five years later, the U.S. Supreme Court ruled definitively in its landmark Gibbons v. Ogden decision that “the power of Congress comprehends navigation, within the limits of every State in the Union...”. And, since Gibbons, the Supreme Court has repeatedly upheld this preeminent need for, and role of, the Federal Government to, as it discussed in an 1883 case, “...improve the navigation of rivers by dredging and cleaning them, and making new channels and jetties, and adopting every other means of making them more capable of meeting the growing needs and extending demands of commerce.”

And, so for over 200 years, our river system has facilitated the affordable, reliable and environmentally friendly transportation of the building blocks of our economy. It has allowed the low cost movement of large bulk commodities in an efficient and timely manner. In fact, a recent study by the Texas Transportation Institute (TTI) found that river transportation is the most energy efficient way to move coal, grain and other agricultural commodities, iron, steel, aggregates, petroleum and chemical products. River barges can move one ton of cargo 576 miles per gallon of fuel. A rail car would move the same amount of cargo 413 miles, while a truck would move the same cargo only 155 miles. The TTI study also found that it would require 216 rail cars, or 1,050 large tractor-trailer trucks, to move the same volume of cargo that a typical 15 barge tow can move on the river system. Clearly, our roads and highways would be even more congested if this huge volume of cargo was not moving by water.

Environmentally, the TTI study showed that inland barge transportation produces far fewer emissions of carbon dioxide for each ton of cargo moved than trucks or railroads. When comparing emissions per ton-mile, TTI calculated that transportation by rail emits 39% more carbon dioxide, and transportation by truck emits 371% more carbon dioxide, than transportation by inland barge.

Mr. Chairman, our inland waterways system includes approximately 12,000 miles of commercially navigable channels and 238 locks at 192 sites throughout the country. Commerce from at least 38 states regularly moves on this system, and it is particularly critical to the Nation's heartland, the Pacific Northwest, the Southwest, and Southeast regional economies. Our waterways transport more than 44% of the Nation's grain exports, about 22% of domestic petroleum and petroleum products, and 20% of the coal used in electricity generation. Every year, approximately 600 million tons of waterborne commerce transit the inland waterways, a volume equal to about 16% of all intercity freight and valued at nearly \$70 billion. If that amount of cargo did not move by water, it would require an additional 58 million truck trips to transport all of that traffic on the Nation's already-congested highways. Needless to say, the negative economic and environmental impacts from such a result would be severe.

Mr. Chairman, despite all of these advantages, our inland waterways infrastructure is suffering and in need of immediate modernization. More than half of the 238 locks in our system are over 50 years old and have exceeded their economic design lives. Over the past decade, we have seen critical lock failures and significant unscheduled down time at locks across the system. In 2007, for example, the Corps of Engineers reported that locks were unavailable 95,877 hours for scheduled repairs, 42,530 hours for unscheduled repairs, and 19,023 hours for unscheduled mechanical breakdowns – totaling 157,430 hours or 6,560 days of down time across the system.

And the situation is worsening each year. That is simply unacceptable. If this situation persists, it threatens to erode the very fabric of our inland waterways system. WCI is dedicated to preventing that outcome.

In order to fully understand the crisis confronting the inland waterways, it is useful to understand how the system is currently financed. With the enactment of the Water Resources Development Act of 1986 (WRDA 1986), operation of the Inland Waterways Trust Fund (IWTF) was modified to support modernization of the inland waterways system, beginning with seven new lock and dam projects authorized in that landmark legislation. The barge industry pays a \$.20/gallon diesel fuel tax into the IWTF, which today generates between \$70-to-\$90 million annually. A cost-sharing formula was established under which one-half of the WRDA 1986 project construction costs were to be paid from the IWTF and the balance from general revenues. WRDA 1986 also created the Inland Waterways Users Board (IWUB) to advise Congress and the Secretary of the Army about inland waterways system priorities and spending levels.

For a period of time beginning in 1993 and continuing into the early part of this century, a surplus developed in the IWTF, peaking at \$412.6 million in 2002. Through the cooperation of the Congress, the Administration, WCI and others, this surplus was spent down on key inland infrastructure projects so that today the surplus is essentially gone. The modernization needs of the system, however, remain great and far exceed the annual IWTF revenues.

Mr. Chairman, let me address the most glaring example of the deficiencies of the current system. The Olmsted Lock and Dam project (which you recently visited) is located on the Ohio River bordering Illinois and Kentucky. It was originally authorized by Congress in 1988 at a cost of \$775 million with a projected 12 year construction period. More tonnage passes through this

point than any other place on America's inland navigation system. In 2008 alone, \$17 billion of cargo transited this portion of the Ohio River. One-third of the coal shipped on the inland waterways moves through this part of the system on its way to the more than 50 power plants located along the Ohio River. The Olmsted Lock and Dam is designed to replace the antiquated Locks 52 and 53 in the same vicinity with a single facility consisting of twin 100 foot x 1200 foot lock chambers and a submersible dam. Because of the cost-share formula, 50% (or \$387.5 million) of this original authorization and any increases are shared by the IWTF. Unfortunately, the cost for the Olmsted project, the construction of which is far from complete, has ballooned to \$2.1 billion 26 years later. And, just in the past month, the Corps of Engineers has advised stakeholders that the cost of the Olmsted project is due to change "significantly" yet again. So, even before we know the exact magnitude of the latest change, which we understand to mean "increase", the cost of this project has tripled with the completion date nowhere in sight. When we learn the full dimensions of this cost increase, it may be necessary to reevaluate the future of the Olmsted project and to consider the viability of other alternatives. In any event, the Olmsted project, together with numerous other similar projects throughout the inland system, underscore the notion that the business model for financing navigation projects in this country is seriously broken.

Mr. Chairman, we are not alone in our concern about the state of our inland waterways infrastructure. A recent *Des Moines Register* editorial stated: "On the Upper Mississippi, which is particularly important for Iowa and other Midwestern states, the locks and dams that enable river navigation are long overdue to be replaced. This country's ability to move exports and imports quickly and efficiently will be lost if river navigation is not maintained and expanded. That would have serious economic implications." And, the *Huntington West Virginia Herald-*

Dispatch opined: “Unfortunately, the maintenance of the waterways and the deterioration of the locks and dams that connect them is reaching a crisis level.” I have attached copies of these editorials (as Exhibit 1) and I could quote from many more observers who have decried the current state of our inland waterways system and the looming disaster that we face as a country if we do not find a solution to this problem in the near future.

It is clear that the current financing model is providing for only minimal improvements to a few components of the system and will not generate the funding necessary to fully modernize that system. As Steve Little, former Chairman of the IWUB, will address in more detail in his testimony, the IWUB engaged in an intensive 18 month process with the Corps of Engineers to develop the Capital Development Plan (CDP), a proposal to reform the Corps’ project delivery system and to provide an affordable funding mechanism to modernize our inland waterways infrastructure over a 20-year period. The CDP includes a project-by-project cost-sharing cap to provide protection to the IWTF from unreasonable cost escalations and project delays. It also proposes developing a more reliable project cost estimate process to allow for effective management of projects within the identified cost estimates and schedules.

Mr. Chairman, WCI and its members believe that, in the interest of helping our economy today as well as advancing the Nation’s economic competitiveness for the future, the right 20-year inland waterway investment plan must achieve a number of objectives. In that regard, we respectfully request the Subcommittee to move legislation in the maritime title of the transportation reauthorization bill or the next Water Resources Development Act (WRDA) reauthorization that would:

- provide additional revenues to the IWTF in a reasonable and supportable fashion, possibly through user fees assessed in a fair and equitable manner;

- prioritize the Nation's investments in modernizing the inland waterways system infrastructure using sensible, objective decision criteria;
- recognize and account for the multiplicity of beneficiaries of the system, only one of which is the barge industry;
- protect the commercial users that cost-share the construction of these projects from unreasonable project cost escalation and delay;
- provide a clear delineation of what is and what is not a recapitalization project; and
- improve the internal procedures and project delivery performance of the Corps of Engineers so that these projects more often will be completed on time and within budget.

The CDP would meet all these objectives in our opinion. We commend this plan to you and your Subcommittee, and we hope it will receive your strong support. The CDP has been endorsed by over 200 organizations from all across the country, including ports, agriculture groups, inland waterways carriers, labor organizations, conservation and environmental groups, the National Association of Manufacturers, and the United States Chamber of Commerce. A list of all of the supporters of the CDP is attached as Exhibit 2.

Mr. Chairman, we face a critical time in the history of the waterways in America. It is imperative that we modernize the vital infrastructure supporting commerce on our inland waterways. There are numerous projects that are fully authorized and ready for construction to commence or continue. In this sluggish economy where the unemployment rate is over 20% for construction workers, these projects can put thousands of people to work right away. And, these projects, once completed, will provide billions of dollars of activity for the American economy. The President has called for the doubling of exports from the United States in the next five years. If we do not properly invest in the waterways of this country, it will be impossible to achieve that

worthy goal. It is gratifying to see that the President included investments in waterways infrastructure in his American Jobs Act that he recently sent to Congress. We look forward to working with the Administration and this Subcommittee to take the necessary steps to recapitalize our Nation's inland waterways system.

Mr. Chairman, I appreciate the opportunity to appear before you today and am prepared to answer any questions that you or any Members of the Subcommittee may have.

EXHIBIT 1

DesMoinesRegister

December 19, 2010, Editorial, Des Moines Register

Maintain Mississippi waterway infrastructure

The nation got another reminder last week of the consequences of neglecting the foundation of a strong economy. There soon may not be enough federal money to keep Mississippi River channels open for moving cargo ships, according to a story in the Wall Street Journal.

The looming shortage of funds needed by the U.S. Army Corps of Engineers to maintain dredging operations on the Lower Mississippi is bad news. America's ability to compete globally will be crippled if ships and barges cannot make it to ports. But that's only half the story: On the Upper Mississippi, which is particularly important for Iowa and other Midwestern states, the locks and dams that enable river navigation are long overdue to be replaced. This country's ability to move exports and imports quickly and efficiently will be lost if river navigation is not maintained and expanded. That would have serious economic implications.

The federal government faces many financial challenges right now, but rebuilding the nation's infrastructure must be made a top priority once this recession ends. That infrastructure includes runways and air-traffic control for airlines, treatment plants for drinking water and sewage, highways and bridges for trucks and cars, and transmission lines for moving electricity.

The infrastructure that enables river navigation is especially important to Iowa, which ships 260 million bushels of corn by barge on the Mississippi annually to the Gulf for export. It's estimated 60 percent of all U.S. export grains move by barge on the nation's 12,000 miles of inland waterways. Many rivers require locks and dams and regular dredging to create deep channels for barges and ocean-going cargo ships.

The locks and dams on the Upper Mississippi - north of the Ohio River - passed their prime long ago. Many of these structures were built in the 1930s, and besides needing to shut down for frequent repairs that cause costly congestion, the locks are too short for modern barge tows that can stretch 600 feet. The Corps of Engineers has a plan for rebuilding the Mississippi locks and dams, with about half the cost coming from the barge industry and the other half from general federal tax revenues. The barge industry has supported an increase in the diesel fuel tax it pays. But Congress has not approved funding for the project.

Some environmental groups, including Audubon and the Nature Conservancy, support the Corps' plan, which includes rebuilding Mississippi wetlands and wildlife habitat. But the Izaak Walton League and other groups say the plan shifts too much of the cost to taxpayers rather than the barge industry. The Corps of Engineers - funded with federal tax dollars - pays for roughly 90 percent of river navigation maintenance costs, but the cost of lock-and-dam construction projects is split 50-50 between the industry and the Corps.

Barges are not the only beneficiaries of river infrastructure, however: Mississippi dams create economic-development opportunities, hydroelectric power generation and recreational boating, which benefit adjoining cities and states. Still, the barge industry should pay a fair share of the cost of building and maintaining this system. It's not yet clear what the right amount should be, but in principle Congress should not subsidize one mode of transportation more heavily than its competitors - namely truck and rail.

Whatever the proper balance, Congress should find it and give the Corps of Engineers sufficient money to move ahead with rebuilding the Upper Mississippi locks and dams, and dredging to the south. The economies of the Midwest, and the nation, depend on it.

HUNTINGTON, WEST VIRGINIA Herald-Dispatch

OPINIONS

Editorial: Congress needs to reinvest in waterway systems

May 21, 2011 @ 11:00 PM
The Herald-Dispatch

Even in a riverfront region such as ours, many of us do not fully realize the importance of our nation's waterways to the local and national economy.

We see the barges going up and down the Ohio, Big Sandy or Kanawha rivers, and we may have read something about the Port of Huntington being the nation's busiest inland port. But unless you are involved in the coal industry or the shipping business, you may not understand the role those barges play in getting America's goods to market.

In short, it's huge.

The 12,000 miles of river waterways across our country carry about \$70 billion in goods each year. That includes coal from our region, grain from the Midwest and a range of other cargo from chemicals to iron and steel.

Moving those commodities by rail or truck is not practical in some cases, and it would also cost more and take a greater toll on the environment. For example, the goods shipped on one 15-barge tow would require 216 rail cars and six locomotives or 1,050 tractor trailer trucks, according to the National Waterways Foundation.

That's more fuel, more people, more emissions and more cost.

So, our river systems play a big part in allowing our industries to compete nationally and globally. They also provide tremendous recreational, development and environmental benefits to all the communities along the way.

Unfortunately, the maintenance of the waterways and the deterioration of the locks and dams that connect them is reaching a crisis level.

Just last year, barges backed up along the Ohio River when mechanical problems closed the Greenup Locks and Dam in Kentucky. And similar problems are becoming commonplace with the aging of the 240 locks across the country operated by the Corps of Engineers.

Half of these facilities are more than 50 years old, and the maintenance and replacement projects meant to keep them going are as backed up as the barges on the Mississippi this month. Current funding might get six of these projects done over the next 20 years, but the Corps has identified dozens of critical projects that need to be completed soon.

For all those reasons, a coalition of waterways supporters is pushing the Inland Waterways Capital Development Plan, which would prioritize the completion of key projects and develop a funding system to get the work done.

The plan would commit about \$7 billion over the 20-year period, which would cover 25 priority projects, including work at Greenup and the Marmet Locks and Dam in Belle, W.Va. The barge industry is volunteering to accept a 30-40 percent increase in the tax it pays into the project fund, and the list of supporters includes a broad mix of industry, agricultural and environmental groups.

The plan also would require a commitment of about \$270 million per year from the federal government, and of course, this is a very difficult time for Congress to look at additional spending. However, that is much less than the federal support for aviation and highways systems. Florida just rejected \$2.4 billion in high-speed rail grants.

Even in tough times, it is important to invest in critical needs, especially for a transportation system with a proven track record. A comprehensive plan to maintain U.S. waterways has been on hold too long, and Congress needs to act soon.

EXHIBIT 2

Supporters of the Inland Waterways Capital Development Plan

National Organizations

The American Waterways Operators	National Association of Manufacturers
Waterways Council, Inc.	National Audubon Society
National Waterways Conference, Inc.	American Agri-Women
National Corn Growers Association	American Land Conservancy
National Council of Farmer Cooperatives	American Soybean Association
National Grain and Feed Association	Dredging Contractors of America
National Mining Association	Inland Rivers Ports & Terminals, Inc
North American Equipment Dealers Association	International Liquid Terminals Association
Steel Manufacturers Association	U.S. Chamber of Commerce
The International Propeller Club of the United States	United Brotherhood of Carpenters
United Association of Plumbers, Fitters, Welders and Service Technicians	

State, Regional, and Local Organizations

Alabama State Port Authority	Jersey County (Ill.) Farm Bureau
Association of Tennessee Valley Governments	Kane County (Ill.) Farm Bureau
Bond County (Ill.) Farm Bureau	Kendall County (Ill.) Farm Bureau
Boone County (Ill.) Farm Bureau	Kentuckians for Better Transportation
Bureau County (Ill.) Farm Bureau	Kentucky Chamber of Commerce
Calhoun County (Ill.) Farm Bureau	Kentucky Corn Growers
California Marine Affairs & Navigation Conf. (CMANC)	Kingdom of Callaway (Mo.) Chamber of Commerce
Carpenters' Dist. Council of Greater St. Louis and Vicinity	Knox County (Ill.) Farm Bureau
Carroll County (Ill.) Farm Bureau	LaSalle County (Ill.) Farm Bureau
Chemical Industry Council of Illinois	Lee County (Ill.) Farm Bureau
City of Pittsfield, Ill.	Little Rock Port Authority
Clark County (Ill.) Farm Bureau	Louisiana Assn. of Waterway Operators & Shipyards
Coalition of Alabama Waterway Associations, Inc.	Macon County (Ill.) Farm Bureau
Cook County (Ill.) Farm Bureau	Marshall-Putnam (Ill.) Farm Bureau
Coosa-Alabama River Improvement Association, Inc.	Mason County (Ill.) Farm Bureau
DeWitt (Mo.) Drainage and Levee District	McLean County (Ill.) Farm Bureau
DeWitt County (Ill.) Farm Bureau	McDonough County (Ill.) Farm Bureau
Show-Me-State Black Ducks Chapter, Ducks Unlimited	Menard County (Ill.) Farm Bureau
DuPage County (Ill.) Farm Bureau	Mercer County (Ill.) Farm Bureau
Effingham County (Ill.) Farm Bureau	MidCentral Illinois Regional Council of Carpenters
Farm Resource Center	Minnesota Chapter of ASFMR
Grain & Feed Association of Illinois	Minnesota Corn Growers Association
Great River Economic Development Foundation	Minnesota Grain and Feed Association
Greene County (Ill.) Farm Bureau	Mississippi Water Resources Association
Gulf Intracoastal Canal Association	Missouri Corn Growers Association
Hancock County (Ill.) Farm Bureau	Missouri Levee & Drainage District Association
Huntington District Waterways Association	Mo-Ark Association
Illinois AgriWomen	Montgomery County (Ill.) Farm Bureau
Illinois Association of Drainage Districts	Ogle County (Ill.) Farm Bureau
Illinois Biotechnology Industry Organization	Ohio Corn Growers Association

Illinois Corn Growers Association	Pacific Northwest Waterways Association (PNWA)
Illinois Farm Bureau	Paducah Area Chamber of Commerce
Illinois Fertilizer & Chemical Association	Peoria County (Ill.) Farm Bureau
Illinois Grape Growers & Vintners Association	Perry County (Ill.) Farm Bureau
Illinois Seed Trade Association	Pike and Scott County (Ill.) Farm Bureaus
Illinois Soc. of Prof. Farm Managers and Rural Appraisers	Plumbers and Pipefitters Local 562 (St. Louis)
Illinois Soybean Association	Port of Cincinnati, LLC
Indiana Corn Growers Association	Port of Delcambre, LA
Indiana Soybean Alliance	Port of Houston Authority
International Union of Operating Engineers Local 513	Board of Commissioners of the Port of New Orleans
Iowa Corn Growers Association	Port of Pittsburgh Commission
Jasper County (Ill.) Farm Bureau	Port of Portland (Oregon)
Jersey County (Ill.) Business Association	Port of Vancouver, WA
Red River Valley Association	Rock Island County (Ill.) Farm Bureau
Rosedale-Bolivar County (Miss.) Port Commission	Tennessee Cumberland Waterways Council
Sangamon County (Ill.) Farm Bureau	Tennessee River Valley Association
Shelby County (Ill.) Farm Bureau	Tennessee-Tombigbee Waterway Develop. Auth.
Southern Illinois Builders Association	Tennessee-Tombigbee Waterway Develop. Council
Southern Illinois Construction Advancement Program	Texas Waterways Operators Association
Stark County Farm (Ill.) Bureau	Texas Agri Women
Stephenson County (Ill.) Farm Bureau	Tri Rivers Waterway Development Assoc.
	Tri-State Development Summit
	Tulsa Port of Catoosa
	Twin Parish Port Comm.
	Upper Mississippi Waterway Association
	Upper Mississippi, Illinois & Missouri Rivers Assn.
	Warrior-Tombigbee Waterway Association
	Washington County (Ill.) Farm Bureau
	Waterways Association of Pittsburgh
	Whiteside County (Ill.) Farm Bureau
	Will County (Ill.) Farm Bureau

Companies

Advantus Strategies, LLC	Holcim (US) Inc.
AEP River Operations	Ingram Barge Company
Ag-Land FS, Inc.	Inland Marine Service
Agriservices Of Brunswick, LLC	The Integra Group, Inc.
Alter Barge Line, Inc.	J.A.M. Marine Services, LLC
American Commercial Lines	Kirby Corporation
American Inland Ports, LLC	K-Sea Transportation Partners LP
American River Transportation Company	Lafayette Workboat Rentals, LLC
Amherst Madison, Inc.	LeBeouf Bros. Towing, LLC
Artco Fleeting Service	Magnolia Marine Transport Co.
B&G Towing LLC/Acme Marine LLC	Marathon Petroleum Company LLC
Bayou Fleet Inc.	MARMAC, LLC d/b/a McDonough Marine Service
Bludworth Marine LLC	Marquette Transportation Company, LLC
Blue Danube Incorporated	Martin Marine
Bob Brackmann Farms	McNational Inc.
Brennan Marine, Inc	Mulzer Crushed Stone
Brunswick River Terminal, Inc.	Natures Way Marine, LLC
Buffalo Marine Service, Inc.	New Orleans Shipyard
Bunge North America	Northern Partners Cooperative
C&C Marina Maintenance Company	Nucor Steel Tuscaloosa, Inc.
Campbell Transportation Company	Osterholt Farms
Canal Barge Company, Inc.	Parker Towing Company

Cargill, Inc.
CF Industries Holdings, Inc.
CGB Enterprises, Inc.
Channel Shipyard Companies
CHS Inc.
Cincinnati Bulk Terminals, LLC
CITGO Petroleum Corporation
Clarkson Grain Company Inc.
Colusa Elevator
CONSOL Energy
Cooper T Smith
Deloach Marine
E.ON U.S.
Farm Credit Services of Illinois
FirstEnergy Solutions
Grain Processing Corporation
GROWMARK
Hartsburg Grain Company
Hodel Farms Inc.
Hines Furlong Line, Inc.

PowerSouth Energy Cooperative
Rentech Energy Midwest
Sause Bros., Inc.
Servco FS Cooperative
Smurfit Stone Container Corporation
T & T Marine Salvage, Inc.
Thomson, Rhodes & Cowie P.C.
Tidewater Barge Lines, Inc.
TPG Marine Enterprises, LLC
TradeWinds Towing LLC
Crouse Corporation
Trinity Marine Products, Inc.
Twomey Company
Turn Services, LLC
United Ocean Services
Upper River Services LLC
Valero Energy
Volunteer Barge & Transport Inc.
Vulcan Materials Company
The Waterways Journal, Inc.
Yager Materials, LLC

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