

**WATER RESOURCES DEVELOPMENT ACT: GROW-  
ING THE ECONOMY AND PROTECTING PUBLIC  
SAFETY**

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**HEARING**  
BEFORE THE  
**COMMITTEE ON**  
**ENVIRONMENT AND PUBLIC WORKS**  
**UNITED STATES SENATE**  
**ONE HUNDRED TWELFTH CONGRESS**  
SECOND SESSION

SEPTEMBER 20, 2012

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ONE HUNDRED TWELFTH CONGRESS  
SECOND SESSION

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**WATER RESOURCES DEVELOPMENT ACT:  
GROWING THE ECONOMY AND PROTECTING  
PUBLIC SAFETY**

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**THURSDAY, SEPTEMBER 20, 2012**

U.S. SENATE,  
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,  
*Washington, DC.*

The Committee met, pursuant to notice, at 10 a.m. in room 406, Dirksen Senate Office Building, Hon. Barbara Boxer (Chairman of the Committee) presiding.

Present: Senators Boxer, Cardin, Whitehouse, Merkley, Vitter, and Boozman.

**OPENING STATEMENT OF HON. BARBARA BOXER,  
U.S. SENATOR FROM THE STATE OF CALIFORNIA**

Senator BOXER. Thank you very much to our witnesses.

In today's hearing we will look at how the Water Resources Development Act, known as WRDA, supports critical infrastructure nationwide and promotes economic growth and protects public safety.

WRDA authorizes the projects and programs of the U.S. Army Corps of Engineers, provides many benefits to American families and businesses, including maintaining navigation routes for commerce and reducing the risks of flooding.

Later this year I hope to move forward with a Water Resources Development Act, with a WRDA bill. I have already been working closely with Senator Inhofe and look forward to working with my colleagues on both sides of the aisle to advance this bill.

As we will hear from our witnesses today, water resources legislation can boost the economy, create jobs, and help protect lives and property in communities across our great nation.

U.S. ports and waterways, many of which are maintained by the Corps, moved 2.3 billion tons of goods in fiscal year 2011, and Corps flood risk management projects are estimated to have prevented \$28 billion in damages, so when we look at this WRDA bill we are really looking at investments that save multiple dollars.

The Water Resources Development Act and the projects, policies, and programs it authorizes are essential components of creating jobs and keeping our economy growing.

In my home State of California, we are facing some of the nation's most critical water resource challenges. Many communities rely on the projects and programs authorized by WRDA. Our ports are some of the busiest in the world. Continued maintenance of

port facilities is critical for the commerce and the jobs that rely on these economic hubs.

California also faces significant flood risk. There are a number of critical flood protection projects across our State that are necessary to protect life and property. For example, the levees around the Natomas Basin in Sacramento require significant improvements to reduce flood risk for the tens of thousands of Californians they protect. According to the Corps, these levees also protect over \$7 billion in property and critical Federal, State, and local infrastructure, and the project to rebuild the Natomas levees can move forward as soon as we pass water resources legislation.

I would like to enter letters to the record from the Sacramento Area Flood Control Agency and Representative Doris Matsui supporting efforts to pass a WRDA bill and to authorize the Natomas levee improvements. Without objection, I will do that.

[The referenced information was not received at time of print.]

Senator BOXER. Like Natomas, there are many more lifesaving projects around the country that are ready to be built following the passage of the WRDA bill. That is why I believe we must move quickly.

Working together with Senator Inhofe and other members of this Committee, I am hopeful we can repeat our recent success on MAP-21, and we know that that transportation bill was not easy, but we got it done. We got it done for the people; we got it done for the economy. We crossed party lines to get it done. There is no reason we can't get a WRDA bill done. We have challenges, but we will figure out how to work those out.

So I am very grateful to my colleagues on both sides of the aisle for their interest in this issue, even though there aren't too many people here. They are working on how to resolve issues on the floor right now. But I know that this hearing is important, and if we can lay the groundwork I am hoping we can meet during the lame duck and get a bill to the floor.

So at this point, since I don't see any Republicans here, we will turn to Senator Cardin.

**OPENING STATEMENT OF HON. BENJAMIN L. CARDIN,  
U.S. SENATOR FROM THE STATE OF MARYLAND**

Senator CARDIN. Madam Chair, first let me thank you for holding this hearing and underscore the importance of the WRDA reauthorization. There are not a lot of Members here because I think I have five of my committees that are meeting at the same time, so this is the day that we believe we might be recessing until after the election, so there are a lot of things going on.

I am going to ask consent that my entire statement be made part of the record.

Senator BOXER. Without objection.

Senator CARDIN. And I want to compliment the Chair. They said we couldn't get MAP-21 done. We got MAP-21 done, and that was the leadership of Senator Boxer and Senator Inhofe recognizing the importance of surface transportation reauthorization to our national economy, and we got the job done. It was this Committee that got the job done. When they said it couldn't get past the House, we got it past the House because of the persistence of this

Committee, the transparency and process that was used by this Committee.

Madam Chair, I know you are going to make the same commitment on WRDA, to do that in an open process. I know Senator Inhofe. I know that he is sincere in trying to get this reauthorization done, and I think it gives great promise to the people of this country.

You are exactly right. It will be bipartisan because we understand this is economic growth and jobs for our country. It translates into jobs, and that is very, very clear.

Keeping shipping channels open for commerce is critically important to our nation. One out of 11 containers that are transported internationally either originate or come to the United States ports, so keeping our channels in proper shape and maintenance is critically important.

Let me just talk a moment about the Port of Baltimore. Last year 853,000 tons of general cargo, No. 1 in the nation on trucks, No. 1 in the nation on roll-on/roll-off cargo, No. 1 on gypsum, sugar, and iron ore. And I could give you a lot of other reasons why the Port of Baltimore is critically important to our national economy.

But let me talk about what it means to the people of Maryland: 14,630 direct jobs in the Port of Baltimore. That is why the water reauthorization bill is important; 108,000 jobs related, directly related to the Port's activities; \$3 billion to our economy; \$304 million in State and local Federal revenues come in, tax revenues, as a result of the activities. And that is just the Port of Baltimore. Multiply that times the other ports around our nation.

So this is a smart investment, but having the honor of the Chair of the Subcommittee on Water and Wildlife, let me also point out how important the WRDA bill is to restore and protect our coastal ecology.

The work that is done here is critically important. I could tell you about the work on Ocean City on the beach renourishment. It has worked. It has worked. We have gone through major storms, and we have seen that as a result of the attention that was paid to our beaches we have protected the important investment on our shorelines from an economic perspective.

Let me mention the Conowingo Dam as a challenge. The Conowingo Dam acts for reservoirs to protect a lot of pollutants from going into the Chesapeake Bay, Susquehanna River to the Bay. It is critically important that we do the maintenance work at the Conowingo Dam in order to prevent those pollutants from ending up in the Bay. We now know, as a result of major storms, that the current protections are inadequate. Another reason why we need a WRDA reauthorization bill.

Let me talk about Poplar Island. I will talk about this frequently. I want to thank Senator Sarbanes, my predecessor. It was his original authorization that allowed us to say we cannot only have a site for dredge material, but we can make into an environmental asset. That is exactly what has happened to Poplar Island. Yes, we put dredge material, but it is an 1100-acre sanctuary for wildlife. The Maryland terrapin is alive and well. I am not necessarily referring to our football team at the University of Maryland, but I am refer-

ring to the terrapin, itself. We are finding the habitat for young terrapins so we can preserve that species for future generations.

Madam Chairwoman, I want to ask consent that the statement from the National Wildlife Federation be made part of our record. They have worked very closely with us in protecting our coastal ways. I would ask consent that that be included in the record.

Senator BOXER. Without objection.

[The referenced information follows:]



Statement

Of

The National Wildlife Federation

Before the

Environment and Public Works Committee  
United States Senate

For the hearing on the

Water Resources Development Act: Growing the Economy and  
Protecting Public Safety

September 20, 2012

Prepared by

Melissa Samet  
Senior Water Resources Counsel

**STATEMENT OF MELISSA SAMET  
SENIOR WATER RESOURCES COUNSEL, NATIONAL WILDLIFE FEDERATION**

**UNITED STATES SENATE  
ENVIRONMENT AND PUBLIC WORKS COMMITTEE  
WATER RESOURCES DEVELOPMENT ACT: GROWING THE ECONOMY AND PROTECTING PUBLIC SAFETY**

September 20, 2012

Chairman Boxer, Ranking Member Inhofe and members of the Committee, thank you for the opportunity to present a statement on the Water Resources Development Act: Growing the Economy and Protecting Public Safety. The National Wildlife Federation greatly appreciates the opportunity to offer our views on reforms that are critical for ensuring that U.S. Army Corps of Engineers (Corps) programs and projects promote sustainable economic development and protect public safety by protecting and restoring the environment.

The National Wildlife Federation is the nation's largest conservation education and advocacy organization with more than four million members and supporters and affiliate conservation organizations in forty-eight states and territories. The Federation has a long history of interest and involvement in the management and protection of the nation's rich array of water resources and has long called for modernization of the Corps' planning process and programs. The Federation also works closely with the Water Protection Network, a coalition of more than 200 grassroots, regional, and national organizations from across the country working to improve the way the Corps plans and constructs water projects.

Far too many activities planned and carried out by the Corps have an enormous adverse impact on public safety and the economy. Corps projects often increase flood risks for communities and tragically, as we saw after Hurricane Katrina, catastrophic failures of those projects can be deadly. Corps projects also damage the nation's rivers, coasts, and wetlands undermining sustainable economic development by harming tourism, recreation, hunting, fishing, and other economies that rely on a healthy environment. Such damage also deprives the nation of vital ecosystem services, including clean water, natural flood protection, carbon sequestration, and fish and wildlife habitat.

As you know, Congress enacted important reforms in the Water Resources Development Act of 2007 to change the direction of water resources planning carried out by the Corps. Among other key reforms, Congress directed that all federal water resources projects – including operation of the nation's vast array of existing water infrastructure – must protect and restore the environment, seek to promote sustainable economic development, and seek to avoid the unwise use of floodplains.<sup>1</sup> Effective implementation of this policy will do much to improve the economy and the safety of communities across the country.

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<sup>1</sup> 42 U.S.C. § 1962-3 (Section 2031 of Public Law 110-114, 121 Stat. 1082).

The National Wildlife Federation urges the Committee to include the reforms discussed in Section III below to further this critical policy and to eliminate ambiguities that are allowing the Corps to evade full compliance with the reforms enacted in 2007.

**I. Flawed Projects and Outdated Operations Put the Public at Risk, Harm the Economy, and Destroy the Environment**

Poorly planned water resources projects cause considerable social, economic, and environmental harm while often failing to solve critical water resources problems. During the past 20 years, federal water projects have played a major role in doubling the number of North America's freshwater fish species at risk of extinction, from 20 percent to an estimated 40 percent. During this same time, the nation's flood damages have increased at an alarming rate despite the construction of innumerable federal flood damage reduction projects. Outdated operating plans for Corps projects have also significantly increased flood risks for communities, caused unnecessary harm to the environment, and aggravated contentious water quantity conflicts.

***Flawed Project Planning***

The flooding of New Orleans in the wake of Hurricane Katrina exposed the horrific damage that can be wrought through poorly planned and constructed federal water resources projects. Poorly planned Corps projects led to major losses of Louisiana's vital coastal wetlands that were not available to help buffer Katrina's storm surge, funneled and intensified that surge into New Orleans, and encouraged the development of high-risk areas that suffered the brunt of the flooding. The city's fate was sealed by the Corps' flawed design and construction of levees and floodwalls that should have protected the city, but did not.

When New Orleans flooded, more than 1,000 residents of the metro area lost their lives,<sup>2</sup> homes were destroyed, and entire communities were displaced. The economic impacts were enormous. For example:

"During the first 10 months after the hurricane, the city suffered an over-the-year average loss of 95,000 jobs. At the trough of the job loss, in November 2005, employment was 105,300 below the previous year's November figure. By June 2006, the over-the-year job loss, though smaller, was still substantial (92,900). Lost wages over the 10-month period from September 2005 to June 2006 were about \$2.9 billion, with 76 percent of the loss attributable to the private sector."<sup>3</sup>

Seven years later, New Orleans still has not fully recovered from that unnatural disaster.

<sup>2</sup> Editorial, *Divided we flood*, New Orleans Times Picayune, February 8, 2006.

<sup>3</sup> Michael L. Dolfman et al, *The effects of Hurricane Katrina on the New Orleans Economy*, Monthly Labor Review (June 2007).

Despite the changes enacted in the Water Resources Development Act of 2007, the Corps continues to promote the same type of large scale structural projects that led to so many problems during Hurricane Katrina. Structural projects destroy wetlands and floodplains that provide natural flood protection, clean water, and vital fish and wildlife habitat. Structural flood protection projects often increase flooding downstream, induce development in high risk areas, and make coastal communities far more vulnerable to storms.

Nonstructural and restoration measures, on the other hand, can solve many water resources problems while protecting and improving the health of the nation's rivers, floodplains, wetlands, and coasts. As demonstrated by the success stories presented in Attachment A, nonstructural and restoration approaches can solve critical water resources while providing additional important benefits that include clean water, fish and wildlife habitat, recreational opportunities, sustainable economic development, and an increased ability for people and wildlife to adapt to climate change.

Importantly, nonstructural and restoration measures avoid the risks of catastrophic failure and overtopping created by structural projects like levees and floodwalls. The likelihood of such failures has caused the Association of State Floodplain Managers to urge communities to use nonstructural measures whenever possible instead of constructing new levees, which should be used only as an option "of last resort."<sup>4</sup>

The importance of utilizing nonstructural and restoration approaches to solving water resources problems has been recognized – and supported – by many members of this Committee who have requested that the new planning principles and guidelines include "clear directives to avoid adverse environmental impacts to the maximum extent possible" including "a clear requirement to utilize non-structural and restoration approaches, where practicable."<sup>5</sup>

#### ***Outdated Operations***

The Corps operates hundreds of projects across the country, including 12,000 miles of inland commercial navigation channels, more than 690 dams, and 75 federal hydropower facilities. Outdated operating plans for this vast array of existing water infrastructure are putting the public at risk, damaging the economy, causing significant harm to the environment, and aggravating increasingly contentious water supply conflicts.

Poorly managed federal projects destroy vital habitat, alter critical fish and wildlife life cycle processes like fish spawning, alter natural hydrologic cycles, destroy wetlands and backwater habitats, increase sedimentation, prevent sediments from reaching and restoring vital coastal wetlands, prevent nutrient-rich floodwaters from nourishing floodplain soils and plant communities, and facilitate encroachment of invasive species.

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<sup>4</sup> Association of State Floodplain Managers White Paper, National Flood Policy Challenges, Levees: The Double-edged Sword, Adopted February 13, 2007.

<sup>5</sup> May 17, 2011, Letter from Senators Benjamin Cardin, Barbara Boxer, Joseph Lieberman, Sheldon Whitehouse, Thomas Carper, and Frank Lautenberg to Nancy Sutley, Chair of the Council on Environmental Quality.

For example, the Corps has not evaluated the environmental, economic, or public safety implications of its operation and maintenance (O&M) of the Mississippi River Navigation System in decades. Instead, the Corps continues to rely on environmental impact statements completed some 35 years ago and continues to carry out the same activities that the U.S. Geological Survey has documented as playing a major role in the dramatic decline in the ecological health of the Mississippi River and the species that rely on it.<sup>6</sup>

Among other things the Corps' O&M activities are destroying critical habitats including the rivers' backwaters, side channels and wetlands; altering water depth; destroying bathymetric diversity; causing nonnative species to proliferate; and severely impacting native species.<sup>7</sup> The Corps has ignored alternatives to its O&M practices that could both maintain a vibrant navigation system and improve the health of the river.

Importantly, an extensive body of recent peer-reviewed scientific literature demonstrates that the Corps' construction of river training structures as part of its O&M activities is significantly increasing the risks of floods for riverside communities.<sup>8</sup> These structures, which are intended to reduce navigation dredging costs, have increased flood levels by up to 15 feet in some locations and 10 feet in broad stretches of the river where these structures are prevalent.<sup>9</sup> While the Corps continues to deny the validity of this science, the flood height inducing effects of river training structures are so well recognized that the Dutch have "begun lowering dozens of wing dikes along a branch of the Rhine River and [have] plans to lower hundreds more as part of a nationwide effort to reduce flood risk in that river's floodplain."<sup>10</sup>

Outdated operating plans are also threatening the Apalachicola River and Apalachicola Bay in Florida. At risk is the health of one of the most ecologically rich river systems in North America, recreational fishing in the Apalachicola River and Bay that contributes \$191 million to the local economy each year, and a commercial fishing industry that contributes \$200 million annually to the regional economy and directly supports up to 85 percent of the local population. The

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<sup>6</sup> U.S. Geological Survey, *Ecological Status and Trends of the Upper Mississippi River System 1998: A Report of the Long Term Resource Monitoring Program* (April 1999); Johnson, B. L., and K. H. Hagerty, editors. 2008. U.S. Geological Survey, *Status and Trends of Selected Resources of the Upper Mississippi River System*, December 2008, Technical Report LTRMP 2008-T002. 102 pp + Appendixes A-B (Upper Midwest Environmental Sciences Center, La Crosse, Wisconsin).

<sup>7</sup> *Id.*

<sup>8</sup> See Attachment B listing 47 peer reviewed studies linking instream structures to increased flood heights.

<sup>9</sup> Pinter, N., A.A. Jemberie, J.W.F. Remo, R.A. Heine, and B.A. Ickes, 2010. Empirical modeling of hydrologic response to river engineering, Mississippi and Lower Missouri Rivers. *River Research and Applications*, 26: 546-571; Remo, J.W.F., N. Pinter, and R.A. Heine, 2009. The use of retro- and scenario- modeling to assess effects of 100+ years river engineering and land cover change on Middle and Lower Mississippi River flood stages. *Journal of Hydrology*, 376: 403-416.

<sup>10</sup> Government Accountability Office, GAO-12-41, *Mississippi River, Actions Are Needed to Help Resolve Environmental and Flooding Concerns about the Use of River Training Structures* (December 2011) (concluding that the Corps is out of compliance with both the National Environmental Policy Act and the Clean Water Act).

ecosystem services provided by the Apalachicola River and Bay have been valued at \$5 billion a year.

The Corps' outdated management plans for upstream reservoirs on the Apalachicola-Chattahoochee-Flint system are preventing the Apalachicola from receiving the freshwater flows needed to maintain a healthy river and floodplain, and a healthy fishery in both the Apalachicola River and Bay. The current master water control manual for the Apalachicola-Chattahoochee-Flint river system was completed in 1958, and the Corps has not completed an environmental review of that plan for more than 20 years (the Corps is currently preparing a new water control manual and environmental impact statement for this project, but only as the result of years of pressure and litigation).

The Corps continues to rely on decades-old operating plans for many federal water projects under its control, despite requirements to reevaluate operating plans in the agency's own internal guidance and as required by the National Environmental Policy Act. To protect public safety and a healthy economy, the Corps must manage the nation's vast array of existing water resources infrastructure to protect and restore the environment and address modern needs.

## **II. Protecting and Restoring the Nation's Rivers, Coasts, and Wetlands Protects the Public, Improves the Economy, and Creates Jobs**

It is clear that protecting and restoring healthy rivers, coasts, and wetlands provides important protections for people and communities including by providing natural protection from floods and storms. Wetlands act as natural sponges, storing and slowly releasing floodwaters after peak flood flows have passed, and coastal wetlands buffer the onslaught of hurricanes and tropical storms. Restoring a river's natural flow and meandering channel, and giving at least some floodplain back to the river, slows down floodwaters and gives the river room to spread out without harming homes and businesses. A single acre of wetland can store 1 to 1.5 million gallons of floodwaters.<sup>11</sup> Just a one percent loss of a watershed's wetlands can increase total flood volume by almost seven percent.<sup>12</sup>

Frank Nutter, the President of the Reinsurance Association of America has said:

"One cannot overstate the value of preserving our natural systems for the protection of people and property from catastrophic events."<sup>13</sup>

It is equally clear that healthy rivers, coasts and wetlands form the basis of a vibrant economy by supporting healthy fish and wildlife populations, improving water quality, and providing recreational opportunities such as boating, fishing, and bird watching.

<sup>11</sup> Environmental Protection Agency, "Functions and Values of Wetlands." EPA 843-F-01-002c. (2001) (factsheet).

<sup>12</sup> Demissie, M. and Abdul Khan. 1993. "Influence of Wetlands on Streamflow in Illinois." Illinois State Water Survey, Contract Report 561, Champaign, IL, Table 7, pp. 44-45.

<sup>13</sup> Restore America's Estuaries, *Jobs & Dollars BIG RETURNS from coastal habitat restoration* (September 14, 2011) (available at [http://www.estuaries.org/images/81103-RAE\\_17\\_FINAL\\_web.pdf](http://www.estuaries.org/images/81103-RAE_17_FINAL_web.pdf)).

Outdoor recreation is a huge contributor to the nation's economy. "In 2011 90.1 million Americans, 38% of the U.S. population 16 years old and older, enjoyed some form of fishing, hunting or wildlife-associated recreation" contributing \$145 billion to the national economy in the process.<sup>14</sup> "This equates to 1% of gross domestic product; meaning one out of every one hundred dollars of all goods and services produced in the U.S."<sup>15</sup>

Fishing is one of the most popular forms of outdoor recreation in the United States, attracting 33.1 million individuals 16 years old and older in 2011.<sup>16</sup> "Freshwater, excluding Great Lakes, fishing was the most popular type of fishing with 27.1 million anglers devoting 443 million days to the sport. Great Lakes and saltwater fishing were also popular with 1.7 million and 8.9 million anglers, respectively."<sup>17</sup> In 2011, anglers spent "\$41.8 billion on trips, equipment, licenses, and other items to support their fishing activities."<sup>18</sup>

Healthy coasts "supply key habitat for over 75% of our nation's commercial fish catch and 80-90% of the recreational fish catch."<sup>19</sup> Healthy rivers are equally important to supporting a vibrant commercial and recreational fishing economy. As discussed above, recreational fishing in the Apalachicola River and Bay in Florida contributes \$191 million to the local economy each year, commercial fishing in the River and Bay contributes \$200 million annually to the regional economy and directly supports up to 85 percent of the local population, and the ecosystem services provided by the River and Bay have been valued at \$5 billion a year.

Restoration projects are also an important creator of jobs that are "inherently local and cannot be exported."<sup>20</sup> Restore America's Estuaries reports that coastal restoration "can create more than 30 jobs for each million dollars invested" which is "more than twice as many jobs as the oil and gas and road construction industries combined."<sup>21</sup>

In Louisiana, a \$72 million project to restore a 30,000-acre expanse of degraded marsh near downtown New Orleans known as the Central Wetlands Unit is on track to create 689 jobs (280 direct jobs and 400 indirect and induced jobs) over the project's life.<sup>22</sup>

In Florida, restoration of the Everglades will produce more than 442,000 jobs over the next 50 years and almost 23,000 short- to mid-term jobs for the actual restoration work.<sup>23</sup> Everglades

<sup>14</sup> U.S. Fish and Wildlife Service, 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: National Overview, Issued August 2012.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> Restore America's Estuaries, *Jobs & Dollars BIG RETURNS from coastal habitat restoration* (September 14, 2011) (available at [http://www.estuaries.org/images/81103-RAE\\_17\\_FINAL\\_web.pdf](http://www.estuaries.org/images/81103-RAE_17_FINAL_web.pdf)).

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> Environmental Defense Fund, *Profiles in Restoration: The Central Wetlands Unit, Part VI* (May 3, 2010) (available at <http://blogs.edf.org/restorationandresilience/category/central-wetlands-unit/>).

restoration is also predicted to produce a return of four dollars for each dollar invested, including:

- Improved water supply worth \$13.1 billion;
- Increased property values worth \$16.1 billion;
- Increased park visitation and tourism worth \$1.3 billion; and
- Increased fishing and hunting as wildlife populations increase, worth \$15.1 billion.<sup>24</sup>

The Department of the Interior's FY2010 investment of \$156 million for ecosystem restoration activities in the Chesapeake Bay, Great Lakes, and Everglades supported more than 3,200 jobs and contributed \$427 million in economic outputs.<sup>25</sup> The full economic output is even greater, however, as the \$427 million does not capture the net benefits associated with the restoration of environmental goods and services not bought and sold in markets.<sup>26</sup>

In Oregon, a \$411 million investment in restoration from 2001 to 2010 generated an estimated \$752 to \$977 million in economic output.<sup>27</sup> The 6,740 restoration projects completed during that time supported an estimated 4,600 to 6,500 jobs, including jobs in construction, engineering, wildlife biology, and in supporting local businesses such as plant nurseries and heavy equipment companies.<sup>28</sup> On average, \$0.80 of every \$1.00 spent on a restoration project in Oregon stays in the county where the project is located and \$0.90 stays in the state.<sup>29</sup> Importantly, the monies spent on restoration are "an enduring investment" whose value "continues to accrue and pay out over generations. Improvements in habitat and fish and wildlife populations provide recreation and commercial opportunities as well as ecosystem services that are fundamental to our health, productivity, and quality of life."<sup>30</sup>

Restoration projects can also provide critical business opportunities during difficult economic times:

"During the economic recession, a habitat restoration project kept our marine transportation business afloat. We were able to keep many of our people working to

<sup>23</sup> Everglades Foundation, Everglades Restoration a 4-to-1-Investment (available at [http://everglades.3cdn.net/79a5b78182741ae87f\\_wvm6b3vhn.pdf](http://everglades.3cdn.net/79a5b78182741ae87f_wvm6b3vhn.pdf)).

<sup>24</sup> *Id.*

<sup>25</sup> The Department of the Interior's Economic Contributions (Department of the Interior, 2011) at 106 (available at <http://www.doi.gov/news/pressreleases/upload/DOI-Econ-Report-6-21-2011.pdf>).

<sup>26</sup> *Id.* at 5.

<sup>27</sup> Whole Watershed Restoration Initiative, Oregon's Restoration Economy, Investing in natural assets for the benefit of communities and salmon (2012)(available at [http://www.ecotrust.org/wwri/downloads/WWRI\\_OR\\_brochure.pdf](http://www.ecotrust.org/wwri/downloads/WWRI_OR_brochure.pdf)).

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*



rebuild a critical part of the marine environment that had been all but lost in North Carolina.”<sup>31</sup>

### III. Important Reforms Are Needed to Ensure that Corps Projects Protect and Restore the Environment

While some improvements have been made to the Corps’ planning process, the agency continues to plan and operate projects that cause significant harm to the Nation’s fish and wildlife and put communities at risk by increasing flooding, reducing water quality, and damaging economies that rely on a healthy environment. These projects also often cost far more they should and fail to solve critical water resources problems.

The reforms outlined below would avoid many of these adverse impacts while promoting modern and environmentally sound solutions to the Nation’s many pressing water resources needs. The National Wildlife Federation urges the Committee to include these reforms in the next Water Resources Development Act that moves through the Committee and to exert your leadership to ensure that these policy reforms are enacted into law.

#### A. Close Loopholes In WRDA 2007 Reforms

Congress enacted fundamental reforms in the Water Resources Development Act (WRDA) of 2007 to produce more effective, less destructive, and less costly federal water projects. Unfortunately, the Corps is exploiting ambiguities in these reforms to evade their clear meaning and intent.

1. **Congress should ensure compliance with the WRDA 2007 national water policy by requiring the use of nonstructural and restoration measures where they can provide an appropriate level of protection and benefits.** WRDA 2007 requires that projects “protect the environment” by “protecting and restoring the functions of natural systems and mitigating any unavoidable damage to natural systems” and by “seeking to avoid the unwise use of floodplains.” Despite these mandates, and despite clear legal requirements mandating use of the least environmentally damaging practicable alternatives, the Corps continues to promote environmentally destructive and costly structural projects where less costly and environmentally protective nonstructural and restoration solutions are available.
2. **Congress should ensure compliance with the WRDA 2007 mitigation provision by requiring adoption of mitigation measures recommended pursuant to the Fish and Wildlife Coordination Act.** WRDA 2007 establishes important requirements to ensure effective mitigation for fish and wildlife losses caused by Corps projects.

<sup>31</sup> Restore America’s Estuaries, *Jobs & Dollars BIG RETURNS from coastal habitat restoration* (September 14, 2011) (available at [http://www.estuaries.org/images/81103-RAE\\_17\\_FINAL\\_web.pdf](http://www.estuaries.org/images/81103-RAE_17_FINAL_web.pdf)) (quoting Simon Rich, General Manager of Stevens Towing Company).

Despite these mandates, the Corps continues to adopt mitigation plans that will not work, in part because they ignore expert recommendation made by federal and state fish and wildlife agencies.<sup>32</sup>

3. **Congress should ensure compliance with the WRDA 2007 independent review provision by establishing clear timelines and standards for the preparation and release of independent reviews to Congress and the public.** WRDA 2007 establishes important standards to ensure transparency, accountability, and public involvement in the independent review of Corps studies. Despite these mandates, the Corps continues to withhold critical review information, impose inappropriate limits on the scope of review, and exclude the public from the process.

#### **B. Modernize Operation Of Existing Projects**

The Corps continues to operate major federal projects under decades-old operating plans that harm the environment, increase flood risks, aggravate contentious water quantity conflicts, and fail to address current needs. The agency also continues to spend significant amounts of federal tax dollars operating and maintaining navigation systems that are rarely used and no longer serve the national interest.

1. **Congress should require the Corps to evaluate and update operations plans and water control manuals for large-scale Corps projects at least every 10 years and implement needed operational changes.** Many major Corps projects are being operated under decades-old operating plans that do not account for current conditions or science, put communities at risk, and cause unnecessary harm to the environment. Regular reoperation would ensure that modern science, management approaches, and needs guide the operation of Corps projects.
2. **Congress should establish a sliding local cost share for Inland Waterways operations and maintenance.** Operations and maintenance activities for all segments of the inland waterways system are currently funded 100% by federal taxpayers, even for segments that see little use. Requiring a local cost share for maintaining little used waterways would ensure that scarce tax dollars are spent operating navigation systems that provide real value to the nation and not on inefficient and environmentally destructive efforts to maintain waterways that are rarely used.

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<sup>32</sup> The many problems with the Corps' post-WRDA 2007 mitigation plans are addressed in the Statement of David R. Conrad, Senior Water Resources Specialist, National Wildlife Federation Before the House Committee on Transportation and Infrastructure, U.S. House of Representatives, for hearings on The Water Resources Development Act of 2007: A Review of Implementation in its Third Year, March 3, 2010.

### C. Improve Flood Damage Reduction Measures To Keep Communities Safe

The Corps continues to promote large scale structural measures to address local flooding problems even when they increase flooding downstream, induce development in high risk areas, and cause significant environmental harm. Nonstructural and restoration measures can be used to provide communities with reliable and cost effective protection from floods while also improving the environment.

1. **Congress should modernize emergency flood recovery efforts by allowing the use of P.L. 84-99 funds for levee setbacks, and nonstructural and restoration measures.** P.L. 84-99 authorizes the Corps to fund 80% to 100% of the cost of restoring a publicly-owned flood project damaged by a flood to pre-disaster conditions (33 U.S.C. 701n). The Corps is prohibited, however, from using those funds to modify the project to ensure adequate flood protection in the future, and from utilizing nonstructural measures unless specifically requested to do so by the local sponsor. Removing these restrictions would ensure more effective and cost-efficient rebuilding, increase community safety, save taxpayer dollars, and improve the environment.
2. **Congress should create economic incentives for low impact flood damage reduction projects by reducing the local cost share for flood projects that utilize nonstructural or restoration approaches from 35% to 25%. Congress should also establish a programmatic authority for smaller scale flood damage reduction projects that utilize such approaches.** Communities continue to request large scale structural projects to address local flooding problems even though such projects increase flooding downstream, induce development in high risk areas, and cause significant environmental harm. Creating an incentive for utilizing nonstructural and restoration solutions would increase community safety while improving the environment.

### IV. Conclusion

The National Wildlife Federation respectfully urges you to include these critically important reforms in the next Water Resources Development Act that moves through the Committee, and we look forward to working with you to ensure that these reforms are enacted into law.

**Attachment A****LOW IMPACT SOLUTION SUCCESS STORIES**

As demonstrated by the examples below, low impact solutions successfully protect communities from flooding while providing a host of other benefits.

**California – Coyote Creek.** The Santa Clara Valley Water District sought approval for levee setbacks and bypass channels after major flooding in 1983. The project was completed in 1995, and is credited for reducing flooding in 1997. According to the Santa Clara Valley Water District, flood waters would have been 40% faster and water volume would have been 57% higher without these improvements.

**California – Napa River.** The Napa River has flooded at least 30 times in the last 150 years, with residents sustaining more than \$540 million in flood damages in the past 40 years alone. After twice rejecting old-style Corps' plans for levees-only flood protection in 1998 a broad coalition worked to develop a "living river" plan that is reconnecting portions of the Napa River to its floodplain. This new plan replaces the Corps' proposed floodwalls and levees with terraced marshes, wider wetland barriers, and restored riparian zones. About 500 acres of previously drained farmland were returned to marshland. Though they were only partially completed, those natural flood control solutions are credited for lowering flood levels by about 2 to 3 feet during the 2006 New Year's Day flood.

**Florida – Upper St. John's River.** Florida has a long history of flooding caused by hurricanes, tropical storms, and heavy rainfall. By the 1970s, the St. John's River had lost more than 62 percent of its historic 400,000 acres of floodplain wetlands, aggravating extensive flooding in the region. In 1986, Congress authorized a combined structural and restoration project to reduce flood damages along the river. The backbone of this project is restoration of 200,000 acres of floodplain which will hold more than 500,000 acre-feet of water – enough to cover 86 square miles with 10 feet of water – and will accommodate surface water runoff from a more than 2,000 square mile area. The Corps predicts that this \$200 million project will reduce flood damages by \$215 million during a 100-year flood event, and provide average annual benefits of \$14 million.

**Illinois – Cache River.** Channelized, dredged, diverted, and leveed since the early 1900s, the Cache River today has lost 91% of its historic wetlands, leaving just 472,800 acres of its once 5 million-acre floodplain. Friends of the Cache, local landowners, The Nature Conservancy, and a variety of government agencies formed a partnership in 1995 that has resulted in the restoration of 9,000 acres of wetlands, reducing erosion and sedimentation, improving water quality, decreasing flooding, and allowing wildlife to flourish. The success of this project has inspired efforts to restore small creeks in the watershed to their original channels.

**Illinois – Grafton.** After the historic 1993 floods, and extreme flooding almost biannually for more than 150 years, the town of Grafton moved 70 homes and 18 commercial properties out of the floodplain to higher ground. The restored floodplain provides more room for the Mississippi and Illinois Rivers to spread out, reducing flood levels and damages, and providing recreational opportunities during dry periods. The 1995 Mississippi River flood left Grafton relatively unscathed.

**Iowa – Iowa River.** After the historic 1993 floods, communities in east-central Iowa looked to change how the land along the Iowa River was being used and purchased 12,000 acres in easements along the 45-mile river corridor for flood control purposes. Over the past decade, local communities are estimated to have saved \$7.6 million in flood damages.

**Iowa – Louisa Levee District 8.** In 1993, when an oxbow levee breached for the 17th time, farmers in the Louisa Levee District volunteered for a federal buyout program. More than 2,500 acres of cropland in the old levee district was converted into the Horseshoe Bend Wildlife Refuge, a combination of grassland, meadows, and wetlands, which provides natural flood protection and serves as a stopover for migrating waterfowl. Residents report that this project helped to reduce flooding in 1995. Relocating the farmers out of the floodplain kept their agricultural land safe from future flooding at a cost that was about 50 percent less than the estimated cost of repairing flood damages from the 1993 flood. The project also put a permanent end to repeated levee repairs and expensive damage payments.

**North Dakota and Minnesota – Red River.** The communities of Grand Forks, North Dakota and East Grand Forks, Minnesota have suffered through at least 12 major floods since 1871. Following severe flooding in the spring of 1997, the communities worked with the Corps to develop a flood protection strategy featuring a space to give the river room to expand. This project involved setting back levees and acquiring flood-prone property to create a 2,200-acre greenway along the Red River between the two cities. This greenway has produced considerable flood insurance savings and provides open space for year-round recreation.

**Massachusetts – Charles River.** Extensive suburban growth paved over much of the Charles River watershed in eastern Massachusetts, triggering flooding from stormwater runoff in Boston and other downstream communities. In 1972, the Corps abandoned a planned \$100 million levee and dam flood project along the Charles River after the agency determined that upstream wetlands were preventing some \$17 million worth of flood damages annually. The Corps instead developed a nonstructural plan at a fraction of the cost, the \$10 million Charles River Natural Valley Storage Project. This project, which included the purchase of 8,500 acres of wetlands with a storage capacity of 50,000 acre feet of water, helped reduce major floods in 1979, 1982, 1987, and 2006. In 1987, the storage area prevented an estimated \$3.2 million in damages. In 2006, the storage area reduced flooding to a 2 year event while nearby rivers were suffering 40 and 100-year flood levels. The storage area has the added benefit of providing important recreational opportunities for the Boston Metropolitan area.

**Missouri – Missouri River.** Severe flooding throughout the 1990s led local citizens to seek natural alternatives to structural flood control measures. Through a combination of fee title acquisition and easement acquisition, 19,000 acres on a 49 mile stretch between Boonville and Jefferson City, Missouri were purchased and set aside as flood overflow areas, including nearly 6,000 acres that were previously enclosed by levees. According to the Natural Resource Conservation Service, the Corps estimated that such reconnections of the river with its floodplain reduced flood levels in 1998 by about four feet.

**Oklahoma – Mingo Creek.** Once known as the flood capitol of the world, the city of Tulsa suffered the worst flood in its history in 1984. Five of the 14 deaths and \$125 million of the \$180 million in flood damage occurred along Mingo Creek. Rejecting the Corps' plan to build 5 structural detention sites, a team of civil engineers, urban planners, and landscape architects devised an alternative that included restoring open space where floodwater can safely overflow, creating permanent lakes, and relocating buildings from the Mingo Creek floodplain. Tulsa's flood insurance rates subsequently decreased by 25%, and repetitive loss properties declined from 93 in 1984 to just 5 in 1995.

**Wisconsin – Duffy's Marsh.** Located in Marquette County, Wisconsin, the Duffy's Marsh restoration project encompasses about 1,500 acres of open water, grassy wetland, and upland. The restoration work primarily involved filling agricultural ditches that drained the land. The marsh now holds approximately 55 million cubic feet of water.

## Attachment B

### Studies Linking the Construction of Instream River Training Structures to Increases in Flood Levels

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Senator CARDIN. So I just really want to thank the Chair for holding this hearing. I think the reauthorization of WRDA—it has been 5 years, it is critically important we get this done. I think the timing is now to start the process. We understand the realities of the calendar, but I applaud you for this, and I look forward to being part of the process where we complete a reauthorization of WRDA.

[The prepared statement of Senator Cardin follows:]

STATEMENT OF HON. BENJAMIN L. CARDIN,  
U.S. SENATOR FROM THE STATE OF MARYLAND

Madam Chairman, thank you for holding this hearing today on another excellent jobs bill that our Committee will be taking up in the near future. It was my great pleasure as a member of this Committee to work in a cooperative, bipartisan manner to pass a comprehensive transportation bill earlier this year. The high quality jobs created by that bill are more important today than ever, and I am proud that this body was able to put partisan differences aside and work together for the good of the American people. It is the way that our legislative process is meant to work.

I see the same bipartisan spirit and potential economic benefits from Water Resource Development projects. Just like improving our transportation infrastructure,

- keeping shipping channels open,
- protecting and restoring coastal ecology, and
- repairing dams

have considerable impacts on both local economies and the national economy. These are the kinds of projects we are here to discuss today.

The projects we will be working to reauthorize under WRDA are exactly the kinds of investments that will help put Americans back to work, all while improving our public infrastructure and protecting our environment.

BENEFITS OF WRDA TO MARYLAND'S ECONOMY

The last time WRDA passed in front of this Committee was 2007. It received overwhelming bi-partisan support and jump started critical infrastructure projects across the country.

Every year the Corps clears tons of eroded sediment from the Federal navigation channels that lead into and out of the Port of Baltimore. Keeping this port open and the channels dredged is essential not just for Maryland, but for the nation. In July of this year the Port of Baltimore handled a record 853,818 tons of general cargo. This cargo would not have reached the port if it were not for WRDA funded dredging efforts.

Among the 360 U.S. ports, Baltimore is ranked No. 1 for handling:

- Trucks and
- Roll on/roll off cargo (i.e. automobiles, trucking trailers, and freight cars), and is the country's second largest automobile exporter,
- Imported forest products, and
- Gypsum, sugar, and iron ore.

The Port of Baltimore is directly responsible for generating 14,630 direct jobs and another 108,000 related jobs. Over \$3 billion of personal wage and salary income is generated by the port, which results in \$1 billion of purchases from local business and \$304 million in tax revenues for the State, county, and municipality.

Although a major economic engine for Maryland, the Port of Baltimore isn't the only beneficiary of WRDA projects; WRDA projects also have a tremendous impact on Maryland's coastal communities. Maryland puts the Bay's dredge material to good use on coastal habitat, beach, and island restoration projects.

Along our Atlantic coast, powerful winter storms and tropical cyclones can cause considerable beach erosion—threatening the economic vitality of our premier Atlantic coast resort city, Ocean City. Since 1990 the Corps has supported a very successful, effective Atlantic coast protection program that involves replenishing the natural beaches that border Ocean City. This is the type of important work that WRDA can facilitate.

IMPACTS OF WRDA TO NATIONAL ECONOMY

Although I could go on all morning naming WRDA projects that are helping Maryland communities, WRDA is not just about Maryland—these projects are critically important for all Americans. For example, according to the Research and Innovative

Technology Administration, today 1 in every 11 shipping containers engaged in global trade is either bound for or originates from a U.S. port.

However, the Corps of Engineers estimates that our top priority harbors—those that handle about 90 percent of the commercial traffic—are only dredged to their authorized depths and widths about 35 percent of the time.

This results in ships having to light-load, which increases the cost of shipping and in turn increases the cost of goods at the cash register. At a time when Americans are struggling, any change in the cost of goods makes a direct difference to people's bottom lines. Moreover, well maintained harbors will help decrease costs for American companies who are shipping goods abroad, thereby giving American producers an advantage in the global marketplace. It is therefore imperative that we ensure that the resources are in place to maintain the shipping infrastructure that our nation relies on.

#### ENVIRONMENTAL BENEFITS OF WRDA

As critical as WRDA is from a jobs standpoint, it is not merely a jobs bill. WRDA is also a major tool in our efforts to protect and restore our natural environment.

In fact, WRDA 2007 established that WRDA projects ought to fulfill the dual goals of promoting sustainable economic development and protecting the environment. Environmental commitment—including ecosystem conservation and the use of non-structural alternatives—is built right into current law. A reauthorization of WRDA offers a unique opportunity to benefit ecosystems across the nation.

In Maryland, WRDA is directly tied to some of our most critical environmental efforts. For example, we now know that the sediment build up behind Conowingo Dam and two other reservoirs meant to keep harmful nutrients out of the Chesapeake Bay has reached critical levels. If this important infrastructure can no longer function, the Bay will surely suffer—the oxygen will be depleted, the water will cloud, the fish will die—all of the careful efforts of State, Federal, and local stakeholders to restore this magnificent Bay will be threatened. Officials are looking at options now for how to address this deeply disturbing circumstance. But no matter how this issue is ultimately addressed, the Corps is likely to be central to the solution.

In Maryland, WRDA has a history of providing critical environmental restoration resources. The Corps' shoreline protection, sediment management, and oyster and habitat restoration programs are integral to Chesapeake Bay restoration efforts. And since oysters represent more than just a source of income for Maryland's watermen—they are natural biological filters continually cleaning up the Bay—WRDA's habitat restoration is leading to long-term solutions for water quality in the Bay.

Similarly, WRDA has allowed us to go forward with an innovative project at Poplar Island. Poplar Island is the premier dual benefit dredge disposal site in the nation, but it is also a 1,100-acre sanctuary to hundreds of species of shore and water birds and Maryland's State reptile, the terrapin.

Poplar Island is now home to the nation's largest terrapin research and propagation station, as well as home to the terrapin head start program which allows Maryland elementary schools to adopt and raise baby terrapins during the winter. None of this would have been made possible without WRDA funding.

It has been 5 years since Congress passed the last WRDA legislation. It is essential to our nation's infrastructure, economy, and environment that we work together to craft a strong, effective bill. I look forward to hearing from today's witnesses and working with my colleagues on the latest reauthorization of WRDA.

Thank you.

Senator BOXER. Well, Senator Cardin, let me say you are a very important piece of this puzzle, because you know how to get things done. As a matter of fact, I am going to read just parts of Senator Inhofe's opening statement that he sent. He was unable to be here today, which I regret because he is my partner in this. He mentions your name, so I just thought you would be interested in this in a good way.

He says: "Thank you, Madam Chairman, for holding this hearing. I would like to thank our witnesses for testifying."

I am just reading parts of this. He says: "As a fiscal conservative, I strongly support the overall goal of cutting Government spending; however, I firmly believe there are two areas worthy of spending

taxpayer dollars. They are defense and infrastructure. It may not be as headline grabbing as some other areas of Government spending, but spending on infrastructure not only has job creation benefits, but it is essential for long-term economic growth.”

Then he says: “Senator Cardin, in the Subcommittee on Water and Wildlife, has held two hearings to make the case for investments in our drinking water and clean water infrastructure. We learned that improving water infrastructure yields significant economic benefits. The Department of Commerce estimates that \$1 invested in water infrastructure generates more than \$2 in economic output in other industries, and that each job created in the local water and sewer industry creates nearly four jobs in the national economy. The U.S. Conference of Mayors noted that each public dollar invested in water infrastructure increases private, long-term GDP output by more than \$6. I want to thank them for their leadership, too, and for bringing this issue to the forefront.”

And then he says: “The Chairman and I have repeatedly signaled our strong desire to move the bipartisan WRDA bill. My staff and other members of the Big Four’s staff have been working hard to negotiate a bill. We recognize there are pressing policy challenges that range from modernizing our ports and inland waterways to streamlining the Corps’ study and planning process.”

He concludes: “In my home State of Oklahoma, we have our share of water resources challenges. These run the gamut from flood control to inland navigation to water supply. Oklahoma’s and the nation’s water resources policy issues and projects can no longer keep waiting for congressional action. I strongly support moving forward with the bipartisan WRDA bill, and I encourage my colleagues to do so,” and so on.

I want to put the full statement of Senator Inhofe in the record.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE,  
U.S. SENATOR FROM THE STATE OF OKLAHOMA

Thank you, Madam Chairman, for holding this hearing. I also would like to thank our witnesses for testifying before us this morning.

Today we are here to discuss a very important piece of legislation that this Committee is responsible for: the Water Resources Development Act, which authorizes projects and policy changes to address the nation’s pressing water resources challenges.

As a fiscal conservative, I strongly support the overall goal of cutting Government spending; however, I firmly believe that the two areas worthy of spending taxpayer dollars are defense and infrastructure. It may not be as headline grabbing as some other areas of Government spending, but spending on infrastructure not only has job creation benefits but is essential for long-term economic growth.

This year many of this Committee’s activities focused on this important issue. Most notably, we came together in a bipartisan way to pass a highway bill despite numerous challenges. For that, I want to thank the Chairman for her leadership and dedication. Not everyone thought we could get it done, but we proved them wrong.

Senator Cardin’s and Senator Sessions’ Subcommittee on Water and Wildlife held two hearings to make the case for investments in our drinking water and clean water infrastructure. We learned that improving water infrastructure yields significant economic benefits. The Department of Commerce estimates that \$1 invested in water infrastructure generates more than \$2 in economic output in other industries and that each job created in the local water and sewer industry creates nearly four jobs in the national economy. The U.S. Conference of Mayors noted that each public dollar invested in water infrastructure increases private long-term GDP output by

more than \$6. I want to thank them as well for their leadership and for bringing this issue to the forefront.

Now this Committee is turning its attention to the nation's water resources infrastructure. Like these other types of infrastructure, water resources infrastructure provides a good return on our investment in the form of economic benefits, job creation, and helping improve protection from flooding and other natural disasters. Our witnesses are here to further demonstrate the case for passing a WRDA bill.

WRDA should be passed on a regular basis. Unfortunately, the last WRDA bill was enacted in November 2007—almost 5 years ago. At that time, we came together with the House to override a presidential veto because we recognized the significance of this legislation.

During consideration of that last bill, Paul Weyrick described the need for preserving the authorization and appropriations process in a column for Townhall. He said, "It is a discipline which is necessary if Congress is to display any resemblance of fiscal responsibility." Mr. Weyrick also correctly pointed out that it is an "important discipline against uncontrolled earmarking," and it helps to limit authorizing on appropriations bills. This rationale holds true today, and in some ways it is even more important that we preserve this process.

To that end, the Chairman and I have repeatedly signaled our strong desire to move a bipartisan WRDA bill. My staff and the other members of the Big 4 staff have been working hard to negotiate a WRDA bill. We recognize that there are pressing policy challenges that range from modernizing our ports and inland waterways to streamlining the Army Corps study and planning process.

In addition, 17 projects with a Chief's Report have been referred to Congress by the Assistant Secretary of the Army (Civil Works), Ms. Jo-Ellen Darcy. The projects range from critical flood control projects that help protect the public to port construction projects that will prepare us for the Panama Canal expansion. They have gone through many years of study to determine if there is a Federal interest in addressing the water resources issue and whether or not the project is economically justified and feasible from an engineering standpoint. In addition, these projects have a local sponsor that shares the cost. Congress, starting with the EPW Committee, must make an individual investment decision as to whether each project should receive authorization. WRDA is the bill where Congress makes those decisions. Only then is the authorized project eligible to compete for funding through the appropriations process.

In my home State of Oklahoma, we have our share of water resources challenges, too. These run the gamut from flood control to inland navigation to water supply. Oklahoma's and the nation's water resources policy issues and projects can no longer keep waiting for congressional action. I strongly support moving forward with a bipartisan WRDA bill, and I encourage my colleagues to do so as well.

I look forward to hearing the witnesses' testimony.

Senator BOXER. So this is really important, because it is sort of a similar type of partnership that we had, and some of you were part of that partnership on the highway bill. No one thought it could be done, so we believe it can be done. Working with not only Senator Inhofe but Senator Baucus and Vitter and Cardin and Sessions and all the members of this Committee, you know, I am very, very hopeful.

To that end, we have assembled a really good and important panel this morning, and I am very hopeful that we will get encouragement from you to press forward. We will see what you say.

So why don't we start with Andrew Herrmann, President of American Society of Civil Engineers.

Mr. Herrmann.

**STATEMENT OF ANDREW HERRMANN, P.E., PRESIDENT,  
AMERICAN SOCIETY OF CIVIL ENGINEERS**

Mr. HERRMANN. Madam Chairman and members of the Committee, my name is Andrew Herrmann. I am President of the American Society of Civil Engineers.

It is an honor for me to appear before this Committee to discuss the importance of a Water Resources Development Act to our na-

tion's overall economic health, global competitiveness, and public safety.

Last week ASCE released our latest Failure to Act economic study on the nation's ports. Our marine and inland waterways ports are critical links that make international commerce possible; however, our report found that continued under-investing in port infrastructure could threaten more than 1 million U.S. jobs between now and 2020. The report also found that investment needs for the nation's ports total \$30 billion, while planned expenditures are only about \$14 billion. That leaves a total investment gap of nearly \$16 billion.

If we don't invest more, transporting goods will become costlier, prices will rise, and the United States will become less competitive in the global market. To remain competitive, U.S. ports will require investment in the coming decades beyond the \$14 billion expected. By closing the investment deficit between now and 2020, the U.S. can eliminate this drag on economic growth. Therefore, a comprehensive WRDA bill is critical at this juncture.

Seven years after Hurricane Katrina, there is still no national levee safety program. While FEMA and the U.S. Army Corps of Engineers have made great strides in creating an inventory of the location of the nation's levees, when examined, the conditions of many of these levees are worse than originally anticipated. Congress needs to enact a new levee safety program which should be modeled on the successful national dam safety program and should require the Federal and State governments to conduct mandatory safety inspections for all levees.

Flooding from Hurricane Katrina and more recently Hurricane Isaac demonstrated the need for consistent, up to date standards for levees based on reliable engineering data on their location, function, and condition. As demonstrated in New Orleans earlier this month, efforts to build a suitable levee system have paid off with better protection for those residents behind the levee; however, the levee system will require continued maintenance in order to provide state of the art protection for years to come.

Next, WRDA should include Senate bill 3362, the Dam Safety Act of 2012. This bipartisan bill would reauthorize a national dam safety program through 2016 and provide grants to improve State dam safety programs through training, technical assistance, inspections, and research.

State governments are responsible for ensuring the safety of most dams, but many State programs are under-funded and understaffed. The Dam Safety Act would provide \$13.9 million annually for State dam safety programs to continue to provide vital services. Last night the House passed the FEMA reauthorization, which included \$10.9 million annually for the dam safety program.

Unfortunately, flooding still remains one of the most prevalent natural disasters in the United States. Development in flood prone areas has increased, and inhabitants are subjected to periodic flooding and devastation. Communities need the protection of an efficient flood plain management program implemented before a flood occurs. By recognizing the likelihood of future flooding and the beneficial aspects of the natural floodplain, communities can become disaster resistant.

The U.S. Army Corps of Engineers has been combating floods for decades and has proven a vital partner for national floodplain management. The Flood Control Act of 1960 created the floodplain management services program, allowing for the Corps to use its technical expertise in floodplain management to help both Federal and non-Federal entities deal with floods and floodplain related matters.

This program provides assistance and guidance in the form of special studies on all aspects of floodplain management planning, including the possible impacts of all floodplain land use changes on the physical, socio-economic, and environmental conditions of the floodplain. Study scopes range from helping a community identify present or future floodplain areas and related problems to a broad assessment of the various remedial measures that can be effectively used.

But the Corps has been faced with reduced appropriations over the past several years, making the mission more complicated. The Office of Management and Budget reported last week that the civil works program faces a reduction of \$505 million in fiscal year 2013 under the sequestration authority of the Budget Control Act of 2011. If Congress does not act, the Corps would lose \$34 million of the \$415 million in fiscal year 2013 budget authority for flood control and coastal emergencies.

Continuing to under-invest in the Corps civil works program will only put our national floodplain programs and Federal water resources infrastructure at risk. ASCE urges all levels of government to partner and adopt proactive floodplain policies and to inform residents in floodplains of the hazards associated with development in high risk flood prone areas.

In conclusion, deferring water resources projects creates costs that reverberate throughout our economy. ASCE looks forward to working with the Senate Environment and Public Works Committee as you develop a WRDA bill.

Thank you, Senator Boxer. This concludes my testimony.  
[The prepared statement of Mr. Herrmann follows:]



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STATEMENT OF  
THE AMERICAN SOCIETY OF CIVIL ENGINEERS  
BEFORE THE  
ENVIRONMENT AND PUBLIC WORKS COMMITTEE  
UNITED STATES SENATE  
ON THE WATER RESOURCES DEVELOPMENT ACT  
SEPTEMBER 20, 2012



Madam Chairwoman, Senator Inhofe, and Members of the Committee:

It is an honor for me to appear before this committee on behalf of the American Society of Civil Engineers (ASCE)<sup>1</sup> to discuss the importance of water resources projects to our nation's overall economic health.

ASCE commends the Environment and Public Works Committee for holding a hearing today on a new Water Resources Development Act (WRDA). The Society is pleased to present to the Committee our views on investing in the nation's water resources infrastructure and the impact that this infrastructure has on the nation's ability to compete in a global economy. A Water Resources Development Act that fosters economic growth and job creation through policies that strengthen U.S. infrastructure will allow the nation to remain competitive in the Twenty-First Century.

#### **A. National Infrastructure Needs**

America's infrastructure picture certainly looks bleak. Our *2009 Report Card for America's Infrastructure*<sup>2</sup> reported that decades of underfunding and inattention have jeopardized the ability of our nation's infrastructure to support our economy and facilitate our way of life.

In the *Report Card* the nation's Levees received a D– due to the fact that the reliability of the majority of estimated 100,000 miles of levees in the country is still unknown. Many of these levees are more than 50 years old and were originally built to protect crops from flooding. With an increase in development behind these levees, the risk to public health and safety from failure has increased. Rough estimates put the cost at more than \$100 billion to repair and rehabilitate the nation's levees.

The nation's 12,000 miles of inland waterways received a grade of D– as well. The average age of all federally owned or operated locks is nearly 60 years, well past their planned design life of 50 years. Additionally, the nation's 84,000 dams received a grade of D. With the average age of dams just over 51 years old and the number of deficient dams rising to more than 4,000, the nation is left in a scenario where for every deficient high hazard dam repaired, nearly two more are declared deficient.

Current economic and political conditions notwithstanding, the path forward will require significant investment. But federal, state and local investments in essential public works can create jobs, provide for economic growth, and ensure public safety through a modern, well-engineered national infrastructure.

#### **B. The Impact of Under-Investing in Our Nation's Ports and Inland Waterways**

Aging infrastructure for marine ports and inland waterways threatens more than 1 million U.S. jobs according to ASCE's latest *Failure to Act*<sup>3</sup> economic study on the nation's ports released on September 13, 2012. Between now and 2020, investment needs in the nation's marine ports and inland waterways sector total \$30 billion, while planned expenditures are about \$14 billion, leaving a total investment gap of nearly \$16 billion. This investment gap is for what would be considered the federal responsibility. The ASCE report does not address the landside connections or the "inside the fence" infrastructure that is the responsibility of the port authority.

<sup>1</sup> ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents more than 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.

<sup>2</sup> [www.infrastructurereportcard.org](http://www.infrastructurereportcard.org)

<sup>3</sup> [www.asce.org/failuretoact](http://www.asce.org/failuretoact)

The nation's marine ports and inland waterways are critical links that make international commerce possible. However, with the scheduled expansion of the Panama Canal by 2015, the average size of container ships is likely to increase significantly, affecting the operations at most of the major U.S. ports that handle containerized cargo and requiring both sectors to modernize. Needed investment in marine ports includes harbor and channel dredging, while inland waterways require new or rehabilitated lock and dam facilities.

The United States has 300 commercial ports, 12,000 miles of inland and intra-coastal waterways and about 240 lock chambers, which carry more than 70 percent of U.S. imports by tonnage and just over half of our imports by value. To remain competitive on a global scale, U.S. marine ports and inland waterways will require investment in the coming decades beyond the \$14.4 billion currently expected. ASCE reports that with an additional investment of \$15.8 billion between now and 2020, the U.S. can eliminate this drag on economic growth and protect:

- \$270 billion in U.S. exports
- \$697 billion in GDP
- 738,000 jobs in 2020
- \$872 billion in personal income, or \$770 per year for households

The report concludes that unless America's infrastructure investment gaps are filled, transporting goods will become costlier, prices will rise, and the United States will become less competitive in the global market. As a result, employment, personal income, and GDP will all fall due to inaction.

### **C. Congressional Action on a National Levee Safety Program Is Essential.**

Seven years after Hurricane Katrina devastated the Gulf Coast, there is still no national safety program for federal or state levees. While FEMA and the U.S. Army Corps of Engineers have made great strides in creating an inventory of the location of the nation's levees, when examined the conditions of many of these levees are worse than originally expected.

Congress must take action and enact federal legislation to protect the health and welfare of American citizens from the catastrophic effects of levee failures. The levee safety program should be modeled on the successful National Dam Safety Program. The act should require the federal and state governments to conduct mandatory safety inspections for all levees and complete a national inventory of levees.

Additionally, the National Flood Insurance Program should map all areas potentially flooded by a levee breach and identify these as special flood areas to better communicate risks and encourage affected property owners to seek appropriate protection.

Many privately built levees are deeded to local governments or associations who do not maintain them or even recognize the risks. There is still no complete, and dependable, catalog of the location, ownership, condition, or hazard potential of levees in the United States. Flooding from Hurricane Katrina, and more recently from Hurricane Isaac, demonstrated the need for consistent, up-to-date standards for levees based upon reliable engineering data on their location, function, and condition.

The nation must use all the tools available to reduce damages from hurricanes and major storms. This means the use of structural methods, such as levees, floodwalls, and dams, but also non-structural approaches, such as flood-resistant design, voluntary relocation of homes and businesses from flood-prone areas, the revitalization of wetlands for storage, and the use of natural barriers to storm surges. WRDA 2012 should require the Comptroller General, in consultation with the Secretary of the Army, to

study the potential benefits of formally uniting the National Dam Safety Program with the National Levee Safety Program. The study should examine:

- The potential to improve the protection of the general public health, safety, and welfare from dam and levee failures through a unified dam and levee safety program;
- The administrative and budgetary efficiencies to be achieved in the unification of the national dam and levee safety programs; and
- Any other factors the Comptroller determines will assist the Congress in assessing the benefits of the integration of the two programs.

**D. The Committee Should Reauthorize the National Dam Safety Program.**

The Committee should add S. 3362, the Dam Safety Act of 2012 as a separate title in WRDA 2012. The bipartisan bill introduced by Senators Akaka, Boozman, Whitehouse, and Crapo would reauthorize the National Dam Safety Program through 2016 providing grants to improve state dam safety programs through training, technical assistance, inspection, and research.

The National Inventory of Dams, counts more than 84,000 dams in the United States. These dams are a vital part of our nation's aging infrastructure and provide enormous benefits to the majority of Americans including drinking water, flood protection, renewable hydroelectric power, navigation, irrigation, and recreation. Yet these critical daily benefits provided by the nation's dams are inextricably linked to the potential consequences of a dam failure if the dam is not inspected or maintained.

Only about 11 percent of the nation's dams are owned, operated, or regulated by the federal government. State governments are responsible for ensuring the safety of most dams. Unfortunately, many state programs are underfunded and understaffed. This legislation recognizes that the federal government plays a vital role in maintaining and inspecting dams wherever they may be located. Under FEMA's leadership, the National Dam Safety Program is dedicated to protecting the lives of American citizens and their property from the risks associated with the development, operation, and maintenance of America's dams.

The Dam Safety Act of 2012, S. 3362 as introduced, would provide \$13.9 million per year, including:

- \$9.2 million per year split among the states, based on the relative number of dams per state, to make improvements in programs identified in the National Dam Safety Program Act;
- \$1.45 million per year in research funds to identify more effective techniques to assess, construct, and monitor dams;
- \$1 million per year for a nationwide public awareness and outreach program;
- \$750,000 per year in training assistance to state engineers; and
- \$500,000 per year for the National Inventory of Dams.

**E. Floodplain Management**

Flooding remains one of the most prevalent natural disasters in the United States. Development and associated infrastructure in flood prone areas has increased rapidly as people are attracted to historically fertile floodplains and coastal areas. Even though the benefits of preserving the natural floodplains as flood storage areas and wildlife habitat have been recognized, the floodplains continue to be developed and new inhabitants are subjected to periodic flooding and related devastation, as shown by recent hurricanes. People living and working in flood prone areas often have developed a false sense of security. Once a flood occurs, residents and businesses often expect government to reduce or eliminate the risk of flooding through large capital projects. These populations need the protection of an efficient floodplain

management program implemented before the flood occurs. By recognizing the likelihood of future flooding and the beneficial aspects of the natural floodplain, areas can be protected and communities can become disaster resistant.

The U.S. Army Corps of Engineers (USACE) has been combating floods for more than 80 years and has proven a vital partner for national flood plain management. The Flood Control Act of 1960 created the Floodplain Management Services Program, which allows for the Corps to use its technical expertise in flood plain management to help both federal and non federal entities deal with floods and flood plain related matters.

The objective of the Corps' program is to encourage the prudent use of the nation's flood plains for the benefit of the nation's economy and public welfare by supporting comprehensive flood plain management planning at all governmental levels. Assistance can be provided in the form of technical services, planning guidance, and assistance on floods and flood plain issues. Study scopes range from helping a community identify present or future floodplain areas and related problems to a broad assessment of the various remedial measures that can be effectively used. Some of the most common types of special studies include:

- Floodplain Delineation / Flood Hazard Evaluation Studies
- Hurricane Evacuation Studies
- Flood Warning / Preparedness Studies
- Regulatory Floodway Studies
- Flood Proofing Studies

However, currently the U.S. Army Corps of Engineers has been faced with reduced appropriations over the past several years. In fact, the Office of Management and Budget (OMB) reported last week that the Civil Works program faces a reduction of \$505 million in FY 2013 under the sequestration authority of the Budget Control Act of 2011, which would be across the board cuts of roughly eight percent. This would include \$34 million of the \$415 million in FY 13 budget authority for flood control and coastal emergencies.

WRDA 2012 can be used as a vehicle to increase authorization levels for such a vital floodplain management program and to ensure that Corps floodplain management programs are authorized over the upcoming years.

ASCE supports protection of natural floodplains and the concept of building disaster resistant communities consistent with sustainable development and holding paramount the public's safety, health, and welfare. ASCE urges governments at all levels to adopt proactive floodplain management policies, particularly in vulnerable coastal lowlands and river bottoms, and supports creative partnering between federal, state and local governments to adopt floodplain management policies and to fund the design and implementation of floodplain management policies and flood mitigation projects in a timely manner.

ASCE urges federal, state, and local governments to inform residents of communities in floodplains of the hazards associated with the development or major redevelopment of communities below sea level or in high-risk, flood-prone areas. Such development is inherently unsustainable and puts the public at significant risk of loss of life and property. The multiple-use of flood prone areas and flood mitigation facilities should be pursued, including river restoration, wetland restoration, aquifer recharge, improvements in habitat, ecosystems, and water quality, recreation and open space use, and incorporation of floodplains into comprehensive watershed management programs.

**F. The Inland Waterways Trust Fund.**

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. The need for increased investment at the federal level is compelling.

However, the tax rate for the trust fund has been 20 cents per gallon since 1995. ASCE believes that an increase in the waterways user fee is long overdue, and we concur in the recommendation that the current fee be increased to between six and nine cents a gallon. However, ASCE also stresses that any increase in the Inland Waterways User fee includes a provision to index that fee to the consumer price index (CPI) and be adjusted every two years. We further recommend that any diesel fuel tax revenues received by the IWTF be “firewalled” to establish discretionary spending limits and to reserve the IWTF revenues exclusively for the reconstruction of the system’s aging infrastructure.

The IWTF, which was created in 1978, now funds half the cost of new construction and major rehabilitation of the inland waterway infrastructure. But the IWTF fund balance has eroded in recent years; the administration has proposed phasing out the existing tax on waterways fuel and establishing a lock user fee.

According to the Inland Waterways Users Board, large project cost overruns and delays in project schedules on the waterways have drawn down the IWTF balance. Project completion delays result 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.

**G. Put Trust into the Harbor Maintenance Trust Fund**

The dredging of the nation’s ports and harbors has suffered from years of under investment in a system that is critical to America’s ability to compete in the global marketplace. For Fiscal Year 2013 the administration has requested \$839 million be appropriated from the HMTF—only 50 percent of total estimated revenues. Total revenues are now estimated at \$1.659 billion for FY 2013. The busiest U.S. harbors are presently under maintained. The Corps of Engineers estimates that full channel dimensions at the nation’s busiest 59 ports are available less than 35 percent of the time. This situation can increase the cost of shipping as vessels carry less cargo in order to reduce their draft or wait for high tide before transiting a harbor. It could also increase the risk of a ship grounding or collision.

The FY 2013 budget request does not come close to meeting the requirements of the nation’s ports and harbors, which have an annual need for maintenance dredging of between \$1.3 billion and \$1.6 billion, according to the Army Corps of Engineers.

This trend toward reduced investments in our ports and harbors has led to ever greater balances in the HMTF, and the unexpended balance in the Trust Fund is growing with a bookkeeping balance of more than \$6 billion by September 30, 2013, the Office of Management and Budget reports.

Therefore, the Committee should enact legislation, which contains a provision requiring the total of all appropriations from the HMTF each fiscal year be equal to all revenues received by the HMTF each year. The Committee should also guarantee that appropriations are not taken from other Corps of Engineers programs due to the potential increased funding from the HMTF.

Such legislation would require Congress to create a mechanism to ensure the equitable distribution of

HMTF monies so that federal assistance would go to the ports in greatest need. This provision would establish a policy for increased expenditures from the Harbor Maintenance Trust Fund to ensure that annual revenues collected are utilized to meet the nation's navigation maintenance dredging needs.

ASCE supports the deepening and widening of ship channels, as necessary, to accommodate new, larger ships and the continued maintenance dredging of ship channels for the efficient handling of maritime commerce. ASCE also supports programs that limit erosion and sedimentation in ports, harbors and waterways.

#### **H. Conclusion**

In conclusion, a significant gap between planned investments and needs exists. The nation's aging infrastructure is critical to both our economy and public safety. Deferring water resource projects creates costs that reverberate throughout our economy, causing exports and GDP to fall, threatening U.S. jobs, causing a drop in personal income, and putting those who live behind a dam or levee at increased risk. A new Water Resources Development Act must address these concerns by creating a national levee safety program, reauthorizing the national dam safety program, and correcting spending shortfalls out of both the Inland Waterways Trust Fund and the Harbor Maintenance Trust Fund. ASCE looks forward to working with the Senate Environment and Public Works Committee as you develop WRDA 2012.

Thank you, Senator Boxer. This concludes my testimony. I would be please to answer any questions.

Senator BOXER. Thank you so much.  
 Jerry Bridges, Chairman of the Board, American Association of Port Authorities, and Executive Director, Virginia Port Authority.  
 Welcome, sir.

**STATEMENT OF JERRY A. BRIDGES, CHAIRMAN OF THE BOARD, AMERICAN ASSOCIATION OF PORT AUTHORITIES, AND EXECUTIVE DIRECTOR, VIRGINIA PORT AUTHORITY**

Mr. BRIDGES. Good morning, Senator, Ranking Member Inhofe, and Members. I want to thank you for the opportunity to provide testimony to the Committee on Environment and Public Works on the need for a Water Resources Development Act.

I am Jerry Bridges, Executive Director of the Virginia Port Authority. I appear today as Chairman of the Board of the American Association of Port Authorities, which represents the interests of the leading U.S. public port authorities, as well as public port authorities throughout the western hemisphere, from Canada to Argentina, including the Caribbean. My testimony today, however, is on behalf of the AAPA's U.S. public port members.

Since the water bills are critically important to the health of the port industry, we appreciate the Committee's leadership in addressing the need for the Water Resources Development Act. I will focus my comments today on the need to authorize new projects to keep the nation competitive in a world economy and promote jobs and economic activity here at home.

I will also address the need to put streamlining and efficiency measures in place that will allow projects to move along more quickly. We can no longer take decades to respond to economic opportunities that occur daily. Seaports and their industry partners provide over 13 million high paying, family wage jobs and contribute more than a quarter of the nation's GDP.

The historic partnership between seaports and the Federal Government finds its root in the Commerce Clause of the U.S. Constitution and is the oldest and most Federal of all the Corps of Engineers' mission. That partnership has built much of the waterside infrastructure we maintain and use today.

The U.S. ports and its partners will spend \$46 billion over the next 5 years to improve their infrastructure. However, increasingly we find that the Federal partner is unable to uphold its part of the bargain in financing new infrastructure and channel improvement projects. As a result, the growth in jobs and income is not being realized at the same extent as in the past.

We are calling upon the Committee to consider a series of streamlining and efficiency provisions that will permit more flexibility and new options for financing and maintaining Federal channel projects.

Having been a port director of major ports on both the east and the west coast, I can unequivocally assure you dredging impacts the bottom line of every port in the country on the docks, at the terminal, and in the yards.

It also directly impacts the transportation savings we are able to create for all of those who depend on ports and Federal channels that handle over 90 percent of our world trade. Dredging directly equates to jobs, incomes, and international competitiveness, and

not just for coastal States. On average, every State depends on as many as 15 different seaports for its overseas trade.

This week the American Society of Civil Engineers released its report entitled, Failure to Act: The Economic Impact of Current Investment Trends in Airports, Inland Waterways, and Marine Port Infrastructure. This report concluded that aging infrastructure for marine ports, inland waterways, and airports threatens more than 1 million U.S. jobs. We cannot let that forecast become a reality.

Earlier I mentioned the critical role this Committee plays in authorizing projects, modification to existing projects, and providing Federal authority and policy direction. Our friends in the dredging industry like to say it all begins with dredging, when in reality it all begins with you. Projects cannot start, construction will be modified until you have done your due diligence in identifying the best sets of provisions needed to move ahead projects under consideration. We need this process to be regular and reliable as we attempt to keep up in a competing world market.

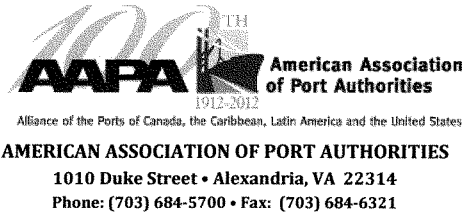
We believe it is now time to revisit the 26 year old harbor maintenance tax trust fund authorization in 1986 WRDA that is the sole source of reimbursement for Federal maintenance dredging funds. Port and harbor users are paying for 100 percent of maintenance dredging and getting half in return. The tax revenue collected currently is about \$1.5 billion annually, and fully applied should be adequate to maintain Federal channels once they are restored to their constructed dimensions.

Finally, we are commending Committee leadership for recognizing the nexus between water resources development and economic prosperity. Limited spending under-investment in the nation's seaport water infrastructure limits job creation, resulting in higher consumer prices and penalizes exporters with higher transportation costs. We urge you to develop and pass the Water Resources Development Act at the earliest possible time.

Thank you very much.

[The prepared statement of Mr. Bridges follows:]





**Written Testimony of Jerry A. Bridges**  
Chairman of the Board of the  
American Association of Port Authorities and,  
Executive Director  
Virginia Port Authority

Prepared for the  
United States Senate  
Committee on Environment and Public Works  
Hearing: "Water Resources Development Act:  
Growing the Economy and Protecting Public Safety"  
September 20, 2012 – 10:00 a.m.  
Room 406 Dirksen Senate Office Building

Chairman Boxer, Ranking Member Senator Inhofe and Members, I thank you for the opportunity to provide written testimony to the Committee on Environment and Public Works on the need for a Water Resources Development Act (WRDA).

The American Association of Port Authorities serves the leading public port authorities throughout the western hemisphere. This testimony is submitted on behalf of AAPA's U.S. public port members.

Since the WRDA bills are of critical importance to the health of the port industry, we appreciate the Committee's leadership in addressing the need for a Water Resources Development Act. In addition to authorizing the water infrastructure projects necessary for the nation to progress, the bill normally includes many policy provisions and guidance to the Corps of Engineers which directly impact project sponsors and those other parties with key financial interest. I will focus my comments

today on the need to authorize new projects to keep the nation competitive in the world economy and promote jobs and economic activity here at home. I also will address the need to put streamlining and efficiency provisions in place that will allow projects to move along more quickly.

**Economic Considerations**

Seaports and their allied partners provide over 13 million high-paying, family-wage jobs and contribute more than a quarter of the nation's GDP. The historic partnership between seaports and the federal government finds its roots in the Commerce Clause of the U.S. Constitution and is the oldest and most federal of all the Corps of Engineers' missions. That partnership has built much of the water-side infrastructure we maintain and use today. However, increasingly we find that the federal partner is unable to uphold its part of the bargain in financing new infrastructure and channel improvement projects. As a result, the growth in jobs and income is not being realized to the same extent as in the past. We are calling upon the committee to consider a series of streamlining and efficiency provisions that permit more flexibility and new options for financing and maintaining federal channel projects. That will aid our industry's ability to capture the benefits sooner and increase transportation savings to shippers, producers, exporters and consumers. And, of course, that equals more jobs and economic growth.

We currently have many channel deepening studies underway at seaports throughout the country that are required to handle increasingly larger vessels if the nation is to remain competitive in global markets. Some studies have been stalled for many years and are not advancing because of technical or policy conflicts among reviewers, the study teams and the project sponsor. We are hopeful that when fully implemented, the revised project development and review sections of WRDA 2007 will result in improvements in the overall project delivery process. We ask the Committee to monitor that progress with us.

Having been a port director at major ports on both the East and West Coasts, I can unequivocally assure you that dredging impacts the bottom line at every port, on the dock, at the terminals and in the yard. It also directly impacts the transportation savings we are able to create for all who depend on the port and the federal channels that covers over 90 percent of our world trade. Dredging-directly equates to jobs, income and international competitiveness.

Just this week the American Society of Civil Engineers (ASCE) released a report entitled “*Failure To Act: The Economic Impact of Current Investment Trends in Airport, Inland Waterways and Marine Ports Infrastructure.*” This report concluded that aging infrastructure for marine ports, inland waterways, and airports threatens more than one million U.S. jobs. The report concludes that unless America’s infrastructure investment gaps are filled, transporting goods will become costlier, prices will rise, and the United States will become less competitive in the global market. As a result, employment, personal income, and GDP will all fall due to inaction.

The report also stated that “The United States has 300 commercial ports, 12,000 miles of inland and intra-coastal waterways and about 240 lock chambers, which carry more than 70 percent of U.S. imports by tonnage and just over half of our imports by value. To remain competitive on a global scale, U.S. marine ports and inland waterways will require investment in the coming decades beyond the \$14.4 billion currently expected.” ASCE reports that with an additional investment of \$15.8 billion between now and 2020, the U.S. can eliminate this drag on economic growth and protect.

#### **Importance of WRDA**

Earlier, I mentioned the critical role this committee plays in authorizing new projects, modifications to existing projects and in providing federal authorities and policy direction. Our friends in the dredging industry like to say “it all begins with dredging.” In reality, it all begins with you. Projects cannot start construction or be modified until you have done your due diligence in identifying the best set of provisions needed to move ahead projects under consideration. We need that process to be regular and reliable as we attempt to keep up with competing world markets. Yesterday’s processes and projects are not meeting the nation’s needs today or contributing to the economy to the extent possible. The WRDA is the critical legislation to move us ahead and assure that we stay competitive with adequately sized channels that accommodate the modern larger dimensions of the world fleet.

#### **Streamlining and Efficiency Measures Needed**

Just as our channels and infrastructure need to meet world market demands, so do our institutional arrangements and planning and project development processes need to be current and reflect the need to have flexible authorities available to the Corps of Engineers. The current budget environment has limited the federal partner from meeting obligations to share in project costs. However, we must continue to modernize and adequately maintain our water-side infrastructure and channels or we will

lose ground to other nations, with dire economic consequences. We ask the committee to consider more flexible policies and authorities that allow the non-federal sponsor to assume a more up-front role in project financing when desired or needed. We also ask the committee to consider process changes to provisions contained in prior WRDA's in the interest of both streamlining and increased efficiency. We look forward to working with the committee to identify provisions that will provide the efficiencies and streamlining discussed.

**Harbor Maintenance Tax**

This committee has long recognized the importance of our nation's port system as an integral part of the transportation network and freight system. It has been very supportive of an adequate dredging program for all the nation's commercial ports, large and small. Sections 2005 and 2029 of WRDA 2007 speak to the need for adequate dredged material management, beneficial use of recovered sediments, and use of multiple factors in judging the benefits to the nation for investing in maintenance dredging. However, we believe it is time to revisit the now 26-year-old Harbor Maintenance Tax and Trust Fund authorized in the 1986 WRDA that is the sole source for reimbursement of federal maintenance dredging funding. Port and harbor users are paying for 100 percent of maintenance dredging and getting half in return. The tax revenue of about \$1.5 billion annually should be adequate to maintain federal channels if fully applied.

Congressional intent notwithstanding, there is no provision in the original authorization to dedicate that tax revenue. We ask the Committee to consider legislative provisions to insure full use of the tax in the next WRDA.

And finally, we commend the Committee leadership for recognizing the nexus between water resources development and economic prosperity. Limiting spending by under-investing in the nation's seaport water infrastructure limits job creation, results in higher consumer prices and penalizes exporters through higher transportation costs. We urge you to develop and pass a Water Resources Development Act at the earliest possible time.

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Senator BOXER. Thank you so much for that.  
Rick Calhoun, President, Cargo Carriers, Cargill, Incorporated.  
Welcome, Mr. Calhoun.

**STATEMENT OF RICK CALHOUN, PRESIDENT,  
CARGO CARRIERS, CARGILL, INCORPORATED**

Mr. CALHOUN. Thank you, Chairwoman Boxer and members of the Committee. Thanks for the opportunity to testify about the state of our waterways and the economic job creation opportunities associated with investment in water resources.

My name is Rick Calhoun. I am the President of Cargill Carriers, a business of Cargill, Incorporated. I am also the immediate past Chairman of the Waterways Council, the public policy organization advocating for water and well maintained national system of ports and inland waterways.

Cargill is an international producer and marketer of food, agricultural, financial, and industrial products and services. Our company employs 140,000 people in 65 countries.

Today I urge the Committee to act on a Water Resources Development Act to improve the nation's waterways system and increase infrastructure investment. Our nation's waterways have remained a reliable transportation mode because of the vision of past Congresses and hard work of the U.S. Army Corps of Engineers, but in the future we believe that without immediate action to alter delivery schedule of projects needed to enhance our infrastructure, the system's reliability could be challenged.

Waterways are critical to keeping our domestic supply chain competitive. Corps of Engineers' statistics note a \$14 per ton cost savings for shipping on inland waterways versus other modes. Translated, a farmer, shipper, and consumer cost savings. Without water-borne cargo, our domestic products would congest the nation's highway and rail lines, increasing shipping and consumer costs for all Americans.

For 200 years America's river systems attracted private capital investment because it has been consistently dependable transportation mode. This natural resource increases U.S. competitiveness, supports global markets for a range of commodities, and creates American jobs. One can always count on the river system to work; however, the system's reliability is fast becoming a questionable assumption.

Despite the efforts of industry to modernize their operations for 21st century economy, on the rivers we rely on 1930s technology. Of the 238 Corps locks, 56 percent are over 50 years old—well beyond their design life, and 34 locks are over 80 years old. If not addressed, this infrastructure hinges on the brink of collapse. Moreover, these projects are not built in a day. They take years, even decades, to construct.

The Ohio River's Olmstead lock and dam project underscores the system's deficiencies. Authorized by Congress in 1988 at \$775 million, the project was to be completed within 12 years. Almost 25 years later, the project is nowhere near completion and has ballooned to a cost of over \$3 billion.

While Olmstead is draining the inland waterway trust fund, other navigation projects are on hold and crumbling before our

eyes. Without a change, we won't see critical construction and major rehabilitation projects completed in our lifetime. With completion dates for some as late as 2090, the navigation project financing business model is broken and needs repair by Congress.

In 2010 industry and the Corps developed recommendations aimed at the waterways system viability. Called the capital development plan, it recommends prioritizing projects system-wide, improving the Corps' project management processes to deliver project on time and on budget, and recommending an affordable funding mechanism with increased investment from both industry and the U.S. Government. The plan recommended increase in annual spending on lock and dam projects from \$170 million to \$380 million, estimating it would be enough to complete 25 major projects over the next 20 years compared to just 2 under the current funding scheme and Olmstead's cost escalation.

The capital development plan was converted into legislation by Congressman Ed Whitfield and Jerry Costello, H.R. 4342. The Way Forward Act of 2012 now has 27 bipartisan House cosponsors and has been endorsed by more than 200 organizations.

Industry is willing to invest and add more to the inland waterway trust fund and to protect our river investments. Cargill and our waterways partners are willing to accept a significant increase in the diesel user fee if we are to provide an efficient plan that will result in a reliable river, but we cannot and should not act alone. The United States must increase its investment as waterways infrastructure modernization occurs worldwide so that we can compete on a global stage to capture the promise of the Panama Canal Project scheduled for completion in 2014.

The time for action is now. Without it, lock closures will choke economic recovery and hamper growth. Congress must support the Corps' work so we don't face the catastrophe of irreparable damage to the U.S. economic which could cost the U.S. Government far more in disaster relief and repair.

In summary, Cargill urges this Committee to bring forward a by WRDA bill immediately in order to change the path to failure that we are currently on today as a nation. Further, we support the efforts of several Senators to address the infrastructure challenges of our ports and inland waterways and we encourage this Committee to support those efforts as well.

Thank you for the opportunity to share Cargill's views. I am happy to answer questions and respond to specific inquiries going forward.

[The prepared statement of Mr. Calhoun follows:]



Testimony of

Richard R. Calhoun, President

Cargo Carriers  
Cargill, Incorporated  
15407 McGinty Road West  
Wayzata, MN 55391

“Water Resources Development Act: Growing the Economy and Protecting Public Safety”

Committee on Environment and Public Works  
United States Senate

September 20, 2012

Chairwoman Boxer, Ranking Member Inhofe, and distinguished members of the Senate Committee on Environment and Public Works, thank you for the opportunity to testify before you today. I hope my statement will provide insight into the current state of our waterways and highlight the economic and job creation opportunities associated with investment in our water resources.

My name is Rick Calhoun, President of Cargo Carriers, a business of Cargill, Inc. My appearance today is on behalf of Cargill, Inc., but I also serve as a Board member and immediate past Chairman of the Waterways Council, Inc., the national public policy organization advocating a modern and well-maintained national system of ports and inland waterways.

Cargill is an international producer and marketer of food, agricultural, financial and industrial products and services. Founded in 1865, the privately held company employs 140,000 people in 65 countries. Cargill helps customers succeed through collaboration and innovation, and is



committed to applying its global knowledge and experience to help meet economic, environmental and social challenges wherever it does business.

Today, I am here to urge the Committee to move forward with the Water Resources Development Act (WRDA) to provide much needed improvement and increased investment in the nation's water infrastructure. Our nation's waterways have remained a reliable source of transportation because of the vision of past Congresses and hard work of the U.S. Army Corps of Engineers. The past two years have provided a difficult environment for the Corps who managed to keep our water transportation system open despite record flooding which was followed this year by a severe drought. However, as we look to the future, it is our belief that without immediate action to alter the delivery schedule and process of projects needed to enhance our infrastructure, the system is now at a point where its reliability could be challenged.

Cargill's barge business has been in operation on our inland waterways for over 80 years. We operate 1300 barges in our United States fleet and we moved over 90 commodities via barge last year. Cargill has two state-of-the-art export facilities in the Louisiana Gulf as well as over 30 grain elevators and barge loading facilities that move U.S. grains and oilseeds to market. We also play a role in the transportation of a multitude of other commodities up-river such as coal and steel to support domestic energy production and U.S. manufacturing, fertilizer for family farmers and road salt for northern municipalities preparing for icy winters.

In addition to its barge operations, Cargill has capital investments in several modes of transportation in the United States comprising an interconnected transportation system. We are a significant rail shipper and we manage cargo on truck and ocean going vessels amounting to more than 10,000 shipments a day. Our diverse transportation portfolio enables us to talk about the importance of a competitive and multi-modal transportation system, which includes a dependable waterways system.

Waterways are critical to keeping our domestic supply chain competitive. Current Army Corps of Engineers' statistics state there is a \$14-per-ton cost savings for shipping on the inland waterways versus other modes. That translates to farmer, shipper, and consumer cost-savings. A





typical 15-barge tow carries the load of 216 rail cars needing 16 locomotives or the equivalent of 1,050 large semi tractor-trailer trucks. Without waterborne cargo, our domestic products would congest the nation's truck and rail lines, increasing shipping costs for those within our borders.

In 2005, when Hurricane Katrina temporarily shut down the Gulf ports, the value of rail cars went up about \$2000 a car in some areas of the country. The price of corn paid to our family farmers along the river temporarily dropped 30 cents per bushel overnight. Without a complete and healthy system, the potential for domestic economic development, interstate commerce, global trade, job creation and future growth will be severely limited.

Understanding the importance of a modern and reliable river system, Cargill has made two large investments in our waterways over the past 12 months. In order to match the efforts by our farm customers who invest regularly in state-of-the-art farm equipment, seed technology and inputs to increase production and efficiency, Cargill invested \$25 million to modernize our Hales Point grain elevator in Tennessee. The facility has tripled the amount of grain it can handle, reducing the wait time for busy farmers at the peak of harvest and expediting the loading of barges destined for Gulf export facilities and the export market. Cargill also completed its largest acquisition of barges in our history by adding 387 inland river barges from the fleet of Alter Barge Company.

Our nation's river system has attracted private capital investment for over 200 years because it has been a consistently dependable mode of transportation. The inland waterways facilitate affordable, reliable, energy-efficient and environmentally friendly transport of the building blocks of our economy. This natural resource increases U.S. competitiveness, supports global markets for domestic agricultural commodities, iron, steel, aggregates, petroleum and chemical products, and creates American jobs. One could always count on the river system to work; however the reliability of the system is fast becoming a questionable assumption.

Despite the efforts of industry to modernize their operations for a 21<sup>st</sup> Century economy, on the rivers we must rely on technology from the 1930s. Fifty-six percent of the 238 locks in our system are over 50 years old and well beyond their design life. Thirty-four of our locks are over



80 years old. If nothing is done, this infrastructure will soon be on the brink of collapse. Moreover, these important projects are not built in a day—or a week—or months. They take years – even decades – to construct.

In 2007, the Army Corps of Engineers reported that locks were unavailable for more than 157,000 hours for scheduled and unscheduled maintenance or mechanical breakdowns. This represents 6,560 days of downtime across the system. A more significant failure at a lock could close a major freight artery causing our once reliable system of commerce and trade to become a chokepoint, creating “Katrina-like” market harm for farmers and the inability to move critical commodities like coal and de-icing salt back up the river. Failing to prevent a catastrophe that could cause local and national economic damage is unacceptable.

Nowhere are the system’s deficiencies more apparent than the Olmsted Lock and Dam project on the Ohio River. Originally authorized by Congress in 1988 at a cost of \$775 million, the project was to be completed within 12 years. Almost 25 years later, the project is nowhere near complete and has ballooned to an expected cost of more than \$3 billion.

While Olmsted is draining the Inland Waterways Trust Fund (IWTF), the private sector funded account used as a 50/50 cost-share to government investment, numerous other navigation projects throughout the system are on hold and crumbling before our eyes. Without a change to the status quo, we will not see many critical construction and major rehabilitation projects completed in our lifetime with expected completion dates for some as late as 2090. The business model for financing these navigation projects is broken and deeply in need of repair by Congress. There is a real opportunity to offer a solution for the long-term growth of our waterways transportation system and our export market with a WRDA bill.

In 2010, the Industry and the Army Corps of Engineers worked together for a year-and-a-half to develop a comprehensive package of recommendations to continue the viability of the inland waterways system. Called the Capital Development Plan, the proposal called for a new prioritization of projects system-wide, improvement of the Corps’ project management and processes to deliver projects on time and on budget, and recommendations for an affordable



funding mechanism with increased investment from both private industry and the U.S. government to meet the system's needs.

The Corps-industry task force recommended increasing annual spending on lock and dam projects from \$170 million to \$380 million annually. The group estimated that would be enough to complete 25 major projects over the next 20 years, compared to just two – Olmsted and the Lower Monongahela project in Pittsburgh – under the current funding scheme and the cost escalation at Olmsted.

In the 113<sup>th</sup> Congress, the Capital Development Plan was converted into legislation by Congressman Ed Whitfield (R-KY) and Congressman Jerry Costello (D-IL). H.R. 4342, the Waterways are Vital for the Economy, Energy, Efficiency and Environment (WAVE-4) Act of 2012 now has 27 bi-partisan cosponsors in the House of Representatives and has been endorsed by Cargill and more than 200 organizations.

Just last week, the American Society of Civil Engineers (ASCE) released a new report on our national infrastructure, *Failure to Act: The Economic Impact of Current Investment Trends in Airports, Inland Waterways, and Marine Ports*. The ASCE report makes similar recommendations for repairing the broken financing model and paints a grim picture of our transportation future if we fail to act quickly.

The report identifies a severe capital investment gap. Between now and 2020, investment needs in the nation's seaports and inland waterways sector will exceed \$30 billion, while planned expenditures are only about \$14 billion, leaving a total investment gap of nearly \$16 billion.

Failing to meet the nearly \$16 billion gap by 2020 will impact our economy in multiple ways. As previously mentioned, Cargill and other U.S. companies shipping goods to market will experience congestion and delays, leading to higher transportation costs, causing the price of goods to rise. The report notes that costs attributable to the aforementioned delays in the nation's inland waterways system were \$33 billion in 2010, and it is expected to increase to nearly \$49 billion by 2020.



As the price of U.S. goods rises, we become less competitive in the global marketplace. According to the report, there will be an estimated \$270 billion decrease in U.S. exports by 2020. Roughly \$1.3 trillion in business sales will be lost and our Gross Domestic Product (GDP) will plummet by a total \$697 billion as a result. At a time when job creation is vital for the country's economic recovery, this suggests the lost opportunity to create 738,000 jobs in 2020 and a disposable personal income hit of \$770 per year, for each household.

The findings of the ASCE report suggest an additional investment of \$15.8 billion between now and 2020 will limit all the negative impacts outlined.

The challenge facing our inland waterways system is the critical need to both maintain and repair existing structures as well as to construct new, modern, expanded lock chambers to accommodate today's larger tow sizes. Completed projects will allow for greater exports of agriculture and energy-sector commodities. This is critical considering more than 90 percent of consumer spending growth will happen beyond the United States' borders in the next 50 years. Investment spending that supports competitive exports is essential to the growth of our economy.

Industry has proven it is willing to invest and we will continue to do even more. To help fill the coffers of the IWTF and protect our other investments along the river, Cargill and our waterways partners are willing to accept a significant increase in the diesel user fee if we are promised an efficient plan that will result in a reliable river. However, we cannot and should not act alone in this effort.

Most of the benefits of an efficient and dependable river system accrue to the general public. Hundreds of Army Corps-maintained lake and reservoir projects provide municipalities along the waterways with an abundant source of fresh water. Flood risk management protects nearly 94 million acres of at-risk land along our banks and coasts. Farmers and ranchers are afforded water resources for irrigation to help ensure a secure food supply. And public and private water vehicles support national security objectives and recreational activities. These beneficiaries are not required to cost-share with the U.S. government or pay into a national trust fund. They count



on the government to protect their access to the waterways and the government needs to invest accordingly.

Investment in modern waterways infrastructure is occurring elsewhere around the world. From the construction of a waterways system in China to the widening of the Panama Canal, this should incent the United States to increase investment here at home. The Panama Canal will be widened by 2014, providing increased trade opportunities for the United States by allowing big ships from Asia to cross from the West Coast to the Eastern United States. The expansion was estimated to take seven or eight years at a cost of \$5.25 billion, and is on track to come in under-budget and potentially finished earlier than projected.

Cargill supports the recommendations of the Capital Development Plan and the ASCE report. We ask the members of this Committee and the U.S. Senate as a whole for its support to move the plan forward. I am encouraged by the actions of Chairwoman Boxer and Ranking Member Inhofe in holding this hearing today and contemplating a WRDA bill. Much has changed since the legislation last passed through this chamber five years ago and we are well past the point where our nation needs to be.

The time for action is now. If nothing is done, more and more scheduled and unscheduled lock closures on the river will choke our economic recovery and hamper growth. We need a reliable inland waterways system to remain an export leader in the 21<sup>st</sup> Century. Congress must support the work of the Army Corps of Engineers so they don't have to face a catastrophe that could do irreparable damage to the U.S. economy and cost the U.S. Government much more in disaster relief and repair.

We recognize the financial considerations that must accompany each legislative decision, but we believe that a healthy investment in the future now will pay 10-fold in benefits later. We must repair the broken financing model and stop wasteful spending that results from simply bandaging our failing infrastructure. The United States has enjoyed a natural advantage over the rest of the world for over a century because of our inland waterway system; we cannot allow ourselves to be surpassed by other nations currently strengthening their infrastructure investment.



In summary, Cargill urges this Committee to bring forward bi-partisan Water Resources Development Act legislation immediately in order to change the path to failure we are currently on today as a nation. Further, we support the efforts of several Senators to address the infrastructure challenges of our ports and inland waterways - and we encourage this Committee to support that effort as well.

Thank you again for the opportunity to share Cargill's views with you today. I am willing to answer questions and respond to specific inquiries going forward.

Senator BOXER. Thank you very much, Mr. Calhoun.  
Jeffrey Soth, Assistant Director, Legislative and Political Department, International Union of Operating Engineers, welcome to you.

**STATEMENT OF JEFFREY SOTH, ASSISTANT DIRECTOR, LEGISLATIVE AND POLITICAL DEPARTMENT, INTERNATIONAL UNION OF OPERATING ENGINEERS**

Mr. SOTH. Thank you, Chairman Boxer. It is an honor to join you today.

My name is Jeffrey Soth. I am the Assistant Legislative and Political Director of the International Union of Operating Engineers. The Union represents approximately 400,000 men and women in the United States and Canada. Every day across the United States thousands of IUOE members are building the nation's locks and dams and dredging the nation's key navigation channels. That is why my testimony today relates to the direct employment and job opportunities connected with WRDA.

The essence of my message today is this: a strategic, targeted investment in the nation's navigation network can have a dramatic direct employment effect on the hardest hit segment of the economy while simultaneously delivering medium and long range benefits to American competitiveness.

I would like to touch quickly on work force development in the construction sector. With over 100 facilities and 1,000 instructors, the International Union of Operating Engineers possesses extensive experience in work force capacity. Most importantly, this expertise is reflected in the skills and productivities of members of the IUOE.

Apprenticeship is the industry accepted training model for craft workers in the industry. It is a system of on the job training combined with classroom instruction. For workers, the model delivers progressive wages over the term of training. Usually for operating engineers that is 3 or 4 years. It delivers a nationally recognized portable credential at the completion of the training, and delivers future training opportunities and higher earning potential to workers. These skills allow operating engineers and other craft workers in the industry to obtain some of the highest earnings in the private sector for production workers.

Production and non-supervisor workers in the heavy and civil engineering subsector earn over \$25 an hour. That compares to less than \$20 an hour for production workers in all of the private sector.

For employers, the apprenticeship model delivers important benefits, as well. First and foremost, it delivers skilled workers. Employers jointly manage these programs. They develop the curriculum, direct the resources, and ensure thereby that the training meets their needs. Apprenticeship delivers a pipeline of new entrants into their companies, and most importantly, through increased productivity and safety, apprenticeship reduces the bottom line for contractors.

Let me turn quickly to the current labor market conditions in the construction sector. Senator, you have a couple of charts there that may be helpful for you as I go through this part of my testimony.

Unemployment, as you can see on the first chart there, unemployment rate in construction has dropped to a nearly 4-year low, a 46-month low. It is at 11.3 percent right now. Unemployment in the industry peaked at over 27 percent in February 2010. Construction has consistently endured the worst job picture of any industry during the Great Recession, and unfortunately, that is still true today. Construction employers added just 1,000 workers to their payrolls in August, and employment has changed little in the last 2 years. There are over 2 million fewer workers in the industry than there were at the start of the recession, as you can see in the second chart.

In heavy and civil engineering construction, contractors added just 2,800 jobs in August. This sector has 16 percent fewer jobs than it did before the start of the recession.

Let me be clear, Senator. The operating engineers sincerely appreciate your leadership and the leadership of the Committee to enact MAP-21. The legislation avoided an economic catastrophe and will add modestly to job growth in construction, but we strongly believe more needs to be done.

As you have heard from Mr. Herrmann, the ASCE just produced an important economic analysis entitled, Failure to Act: The Current Trends in Investment in Ports and Inland Waterways. The report makes plain that a \$16 billion funding gap exists. To put it simply, your leadership is necessary to fill this gap. By doing so, Congress can meet the short-term needs of the construction industry while laying the foundation for long-term vitality of the national economy.

WRDA capital improvements can drive job growth in the anemic construction sector. It is clear from analyzing other types of infrastructure investment that roughly 30,000 job years are created for every \$1 billion invested in infrastructure. But here is the key. Here is the important point: 10,000 of those jobs, about one-third of them, are created in the construction sector.

To summarize, the construction sector has endured the worst unemployment of any industry in the nation during the Great Recession. Family sustaining jobs, American jobs at higher than average wages can be created through investments in the nation's waterways.

The International Union of Operating Engineers believes that now is the time for targeted investments in the Water Resources Development Act. Such a move can change the course of the construction sector's economic recovery and lay the foundation for the country's future prosperity. We hope you agree.

We appreciate the opportunity to comment, Senator. Thank you.  
[The prepared statement of Mr. Soth follows:]



Testimony of

**Jeffrey Soth**  
**International Union of Operating Engineers**

**Environment and Public Works Committee**  
**Public Hearing**  
**Water Resources Development Act:**  
**Growing the Economy and Protecting Public Safety**

**September 20, 2012**  
**Washington, DC**

Chairman Boxer, Ranking Member Inhofe, distinguished members of the Environment and Public Works Committee; it is an honor to join you today. My name is Jeffrey Soth. I am the Assistant Legislative and Political Director of the International Union of Operating Engineers (IUOE).

The International Union of Operating Engineers represents approximately 400,000 men and women in the United States and Canada. Operating Engineers are one of the key occupations directly employed in the construction and maintenance of the nation's ports and waterways, locks, and dams. In fact, the heavy and civil engineering segment of the construction industry – that subsector associated with investments in the Water Resources Development Act (WRDA) – relies heavily on the skills of the four largest trades in the subsector: laborers, operating engineers, truck drivers, and carpenters, in that order, according to the Bureau of Labor Statistics. Every day across the United States thousands of IUOE members are building the nation's locks and dams and dredging the nation's key navigation channels.

My testimony today relates to the direct employment and job opportunities connected with the investment in America's ports and waterways. The essence of my message today, Senators, is that a strategic investment in the nation's navigation network can have a dramatic direct-employment effect on the hardest hit segment of the economy, while simultaneously delivering substantial medium- and long-range benefits to the country's global competitiveness, as you will hear from other witnesses.

Most of the Operating Engineers engaged in this segment of the industry run bulldozers, backhoes, cranes, and excavators – the traditional heavy equipment operated by members of the union. Members of the Operating Engineers union receive extensive craft training through on-the-job apprenticeship training; I'll say more about that workforce system in a moment. But work opportunities around the nation's waterways and ports also require specialization within the Operating Engineer craft. In fact, one local union within the

International Union Operating Engineers, Local 25, performs nothing but marine work; other local unions perform extensive marine and inland water work within their jurisdictions.

Allow me to return to the workforce model in place for Operating Engineers. The International Union of Operating Engineers, in partnership with employers, trains tens of thousands of apprentices and journey-level workers at over 100 facilities around the country. With over 1,000 instructors at the IUOE's training programs, the union possesses extensive workforce-development capacity and competence. Most importantly, this expertise is reflected in the skills and productivity of members of the Operating Engineers union.

Apprenticeship is the industry-accepted training model for Operating Engineers and other craftworkers within the construction and dredging industries. Through a system of on-the-job and classroom training, workers acquire the skills necessary to excel in careers as Operating Engineers. Generally, Operating Engineers training programs within the construction and dredging industries are regulated by the Department of Labor's Office of Apprenticeship or through State Apprenticeship Councils.

There are key benefits to the training model for the worker and the employer. For workers, the apprenticeship brings progressive wages over the term of training (typically a three-year or four-year duration); nationally-recognized, portable credentials upon completion; higher earning potential and greater financial security; more opportunities for future training and advancement; and many programs offer college credit. The skills that Operating Engineers acquire through this rigorous training command some of the highest earnings in the private sector. For employers, the apprenticeship model delivers skilled workers trained to industry specifications and needs. Employers jointly manage the programs with members of the union and develop the curriculum to ensure that the skills that workers possess are the same skills the employers demand in the workplace. The system of apprenticeship provides a pipeline of new skilled workers for employers, and perhaps most importantly, the system delivers reduced costs due to worker productivity and safety.

After that introduction into one of the key occupations employed by private-sector employers in this largely publicly funded industry, please allow me to turn to the current labor market conditions in the construction sector, with special attention to the subsector most closely connected to WRDA investments – the heavy and civil engineering subsector.

As you can see in the first chart in my testimony, the unemployment rate in construction dropped to 11.3% in August, reaching a 46-month low. Unemployment in the industry peaked at 27.1% in February 2010. You can understand why, when the unemployment reached over 25%, the Associated General Contractors said that while the rest of the country suffered a deep recession the construction sector suffered a depression.

Construction has consistently endured the worst job picture of any industry sector during the Great Recession. That is still true today.

In August, construction employers added a meager 1,000 workers to their payrolls. Employment levels in the sector have changed little in the last two years. Construction employers have dropped 2.1-million workers from their payrolls since the start of the recession, as you can see in the second slide attached to my testimony. There are currently 923,000 unemployed construction workers in the nation.

Employers in the “heavy and civil engineering” sector of the construction industry added just 2,800 workers to their payrolls in August. The subsector has grown slightly in the last twelve months, though it still possesses over 16% fewer jobs than it did before the start of the recession.

As I mentioned, the skill levels developed through the system of apprenticeship lead to higher wage-levels than other private-sector employment. Wage estimates for production and nonsupervisory workers in the heavy and civil engineering subsector of the construction are \$25.03 an hour. That compares to \$19.75 an hour for production workers in all of the private sector. And it is worth mentioning that 88% of the employers in the heavy and civil engineering are private-sector establishments.

Should policymakers choose to invest in the movement of waterborne traffic, there are significant opportunities for the economy in both the short and long term. Let me be clear, the Operating Engineers union sincerely appreciates the leadership of the Environment and Public Works Committee to enact the highway and transit bill, MAP-21. The legislation added significant value to the transportation program and improves policy in a wide range of areas, including in freight mobility, yet much more needs to be done in all modes of transportation if the country is going to lead the world in global competitiveness in the long term and immediately affect the jobs crisis in the short term.

As you will in other testimony today, the American Society of Civil Engineers (ASCE), just produced an important economic analysis called “Failure to Act” that charts the current trends in investment in airports, inland waterways, and marine ports. This timely report makes plain that the funding gap that exists in WRDA-related investments threatens the global competitiveness of the nation. Congressional leadership is necessary to address this dramatic need.

ASCE’s report, “Failure to Act,” says that according to the Army Corps of Engineers, to merely maintain existing levels of service, where frequent delays already occur, will require almost \$13 billion in cumulative investment needs by 2020. Current funding levels can support only \$7 billion by 2020. The report says that, in order to accommodate growth in trade in the nation’s waterways and ports, “...total public investment needs are

expected to exceed \$30 billion by 2020." A funding gap of \$16 billion has been identified through the end of the decade.

As I said earlier, by filling this funding gap, Congress can serve a critical purpose in meeting the short-term needs of the construction industry and America's job shortage, while laying the foundation for the long-term vitality of the national economy. Capital improvements to the nation's inland waterways and ports can drive job growth in the anemic construction sector.

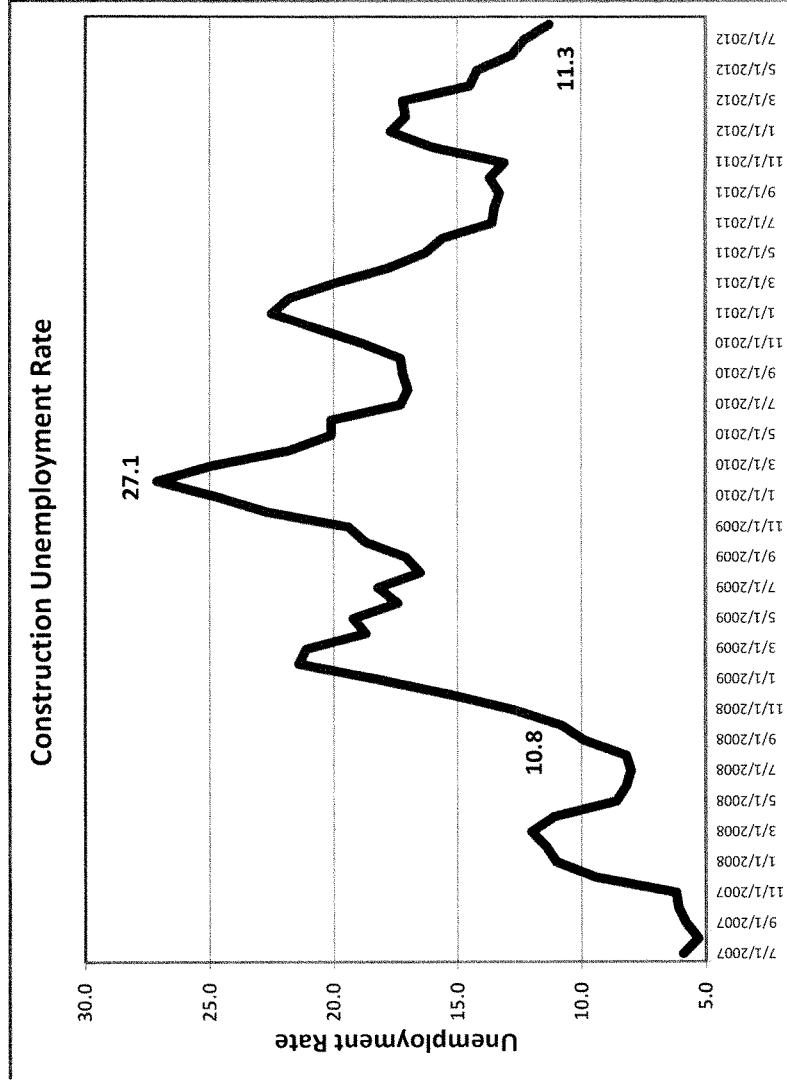
It is clear from the economic analysis of other types of infrastructure that roughly 30,000 job-years are created for every billion dollars of investment. Roughly 15,000 jobs are created directly by this funding, and more than 1/3 of those jobs are targeted in the construction industry. Roughly \$430 million dollars of the investment ends up in the pockets of construction workers as income.

As the committee considers reauthorization of the Water Resources Development Act, there are several policy changes that the International Union of Operating Engineers support, such as establishing upfront funding for major capital projects and providing a five-year construction program for deep-draft navigation projects. But one thing is certain: Congress should maximize the investment levels to put Operating Engineers and other construction workers back on the job.

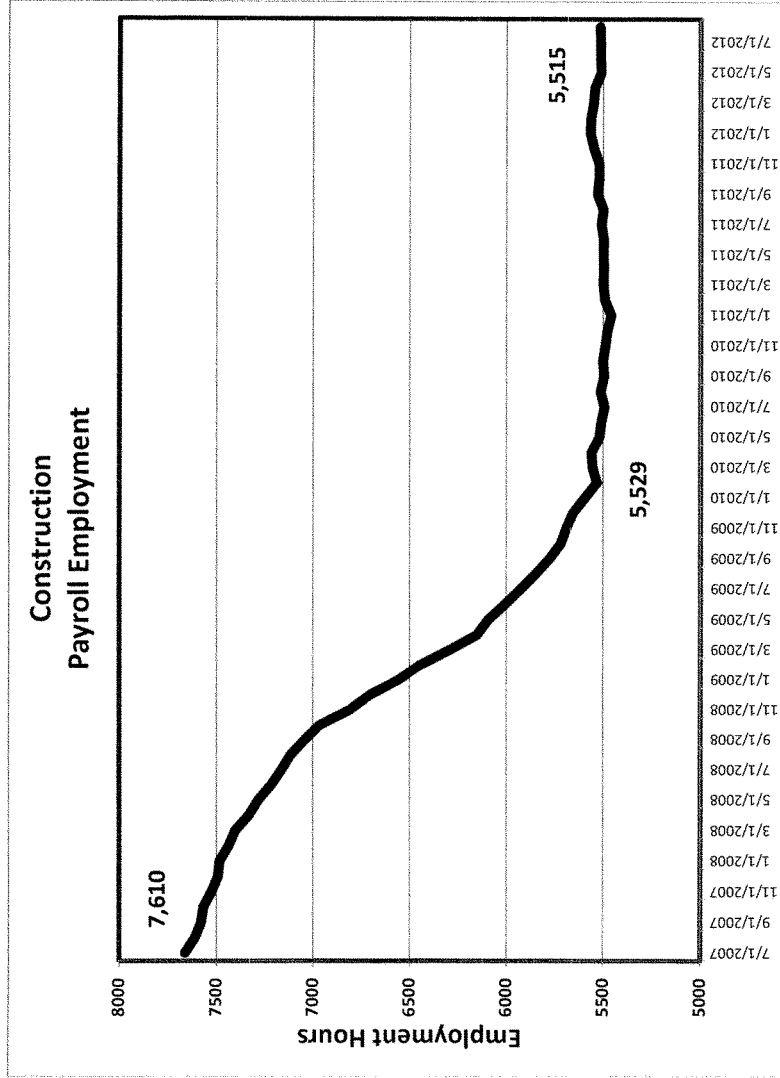
Please allow me to summarize. The construction sector has endured the worst unemployment of any industry. The job picture has been largely stagnant the last two years. Family-sustaining, American jobs in the heavy and civil engineering subsector of construction are created at higher than average wages through investments in the nation's waterways. Capital investments in this type of infrastructure can have a dramatic effect on the short-term direct employment of Operating Engineers and other construction workers. And a huge funding gap exists just to maintain current, inadequate service levels.

The International Union of Operating Engineers believes that timely, targeted investments in the nation's inland and marine waterways can change the course of the construction sector's economic recovery and lay the foundation for future prosperity.

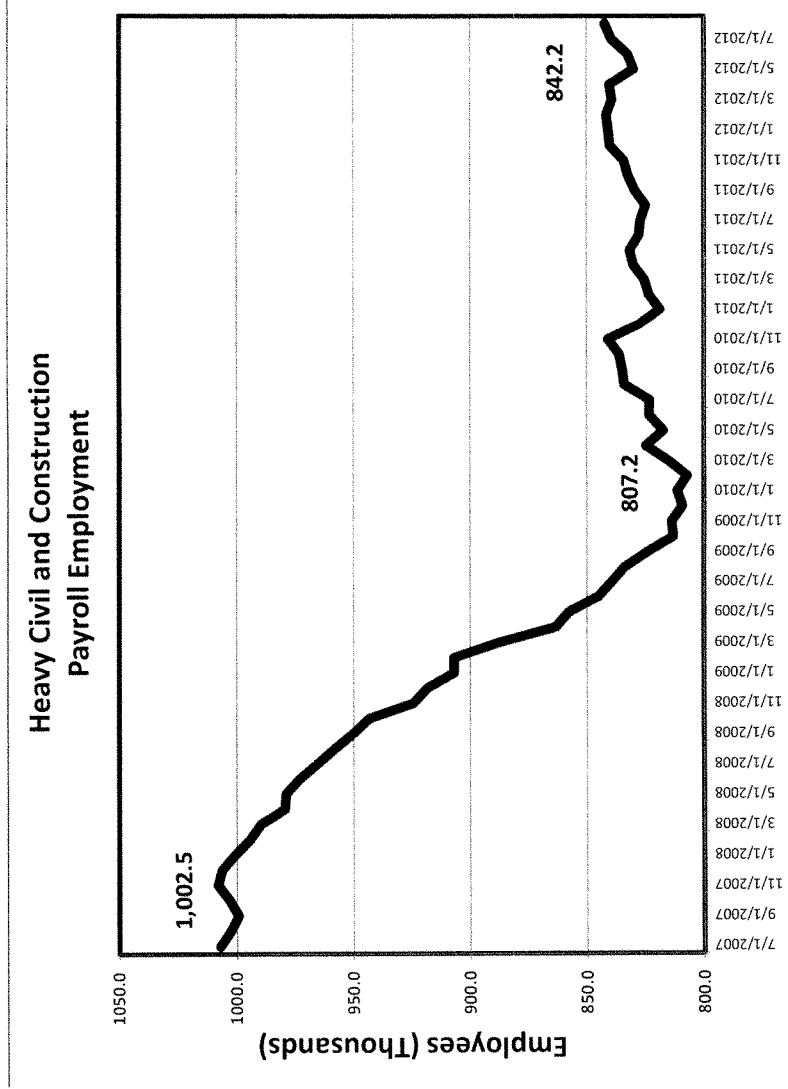
Thank you for the opportunity to comment.



Source: Bureau of Labor Statistics, Current Population Survey, August 2012 (Not Seasonally Adjusted)



Source: Bureau of Labor Statistics, Current Employment Statistics Survey, August 2012 (Seasonally Adjusted)



Source: Bureau of Labor Statistics, Current Employment Statistics Survey, August 2012 (Seasonally Adjusted)

Senator BOXER. I won't keep you guessing. I agree.

And now it is my pleasure to introduce Janet Kavinoky, Executive Director, Transportation Infrastructure, and Vice President, Americans for Transportation Mobility Coalition, United States Chamber of Commerce.

I want to just say publicly, Janet, how much I appreciated all your work during MAP-21. It was essential. You reached out to a lot of people in the House that only you could do. I really appreciate it.

**STATEMENT OF JANET KAVINOKY, EXECUTIVE DIRECTOR, TRANSPORTATION AND INFRASTRUCTURE, AND VICE PRESIDENT, AMERICANS FOR TRANSPORTATION MOBILITY COALITION, U.S. CHAMBER OF COMMERCE**

Ms. KAVINOKY. You are very welcome, Senator. It was a true partnership of a lot of people in this room. Many of us will be back to work with you on WRDA, so that is why we very much appreciate the opportunity to be here to testify about economic and job benefits of water resources infrastructure.

We, of course, appreciate this Committee's long tradition of leadership and bipartisanship on infrastructure issues, and in particular, the efforts to guide MAP-21 to its successful conclusion.

We often refer to transportation in terms of surface, air, and water modes. This Congress has tackled runways, roadways, and railways this year. Now it is time to finish the job and focus on water resources, and in particular, navigation.

As we look at this issue, we find that transportation has a direct influence on the U.S. economy. Cargo and related activities in our ports, on our coastal inland waterways, the Great Lakes, and the St. Lawrence Seaway are integral to the global supply chain and sustain more than 13 million jobs. One-third of the short tons moved in water-borne commerce is bound for foreign markets that represent 73 percent of the world's purchasing power, 87 percent of its economic growth, and 95 percent of its consumers. The inland waterways system helps make American producers competitive by supporting low cost transportation commodities.

Unreliability and outdated infrastructure increase the cost of transporting these commodities and threatens U.S. competitiveness.

In addition, this Committee made stretching every Federal highway program dollar a priority in MAP-21, but our outdated and unreliable inland waterways infrastructure undermines that good work. For example, on the upper Mississippi River, transportation accounts for 75 to 80 percent of the aggregates cost in that region. The industrial lock in New Orleans, which allows all cargo bound for east coast and gulf ports to exit the Mississippi, is so small that only four barges can go through at once. All because Warren Paving brings eight-barge tows to Gulfport; those barges must first be broken in two, then an assist boat hired to push half the barges through the lock at a time, and then the eight barges are put back together before proceeding. It is a major expense, and that is only one location.

As Mr. Calhoun noted, a high percentage of the locks on the Mississippi River are 50 years old or more. It is not uncommon for a



tow to sit 2 or 3 days waiting to get through some of the locks, and such a delay imposes significant additional costs.

Since you have already heard from AAPA, I will simply agree that our inland and coastal ports across the country face challenges posed by shifting trading patterns as a result of the expansion of the Panama Canal in competition from Canada and Mexico. Pressing needs include last mile investment, land site congestion management, capital dredging projects, and of course maintenance dredging of channel and harbors which could be addressed through full annual utilization of the harbor maintenance trust fund.

The challenges facing the marine transportation system are well documented. The Chamber recommends legislative actions in four general areas: improving Federal coordination; establishing priorities to maintain, modernize, and expand the system; increasing investment, both public and private; and creating conditions for successful project delivery.

The Chamber is among the 200 organizations that endorse the inland waterways capital development plan now in legislative form in the House. The plan presents a 20-year construction and rehabilitation schedule, recommends raising the inland waterways diesel fuel tax, and promotes modifying authorized depths and widths for harbors and channels as needed.

A WRDA bill should create the conditions for successful Army Corps project delivery, including providing for adequate reliable funding, streamlining and putting deadlines on the feasibility study process, and allowing the Corps to enter into continuing contracts for critical projects when they are consistent with congressional and Administration priorities.

And we agree with other stakeholders that it is critical and urgent to address the speed, cost, and oversight of the Olmstead Locks and Dam project in order to free up resources for other capital construction efforts along the inland waterways system.

The total value of water-borne freight is estimated to increase by 43 percent domestically and 67 percent internationally by 2020. The U.S. marine transportation system must accommodate those increasing freight volumes, so this Committee can and should act with the similar bipartisan spirit that resulted in a unanimous Committee vote that set up MAP-21 for success on the Senate floor, and in the same way the Chamber supported this Committee on MAP-21, we will continue to do so with the Water Resources Development Act.

So thank you very much for your ongoing partnership with the Chamber on infrastructure, and I am happy to answer any questions you may have.

[The prepared statement of Ms. Kavinoky follows:]



100 Years Standing Up for American Enterprise  
**U.S. CHAMBER OF COMMERCE**

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# Statement of the U.S. Chamber of Commerce

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**ON:** Water Resources Development Act: Growing the Economy  
and Protecting Public Safety

**TO:** U.S. Senate Committee on Environment and Public Works

**DATE:** September 20, 2012

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The Chamber's mission is to advance human progress through an economic,  
political and social system based on individual freedom,  
incentive, initiative, opportunity and responsibility.

The U.S. Chamber of Commerce is the world's largest business federation, representing the interests of more than 3 million businesses of all sizes, sectors, and regions, as well as state and local chambers and industry associations.

More than 96 percent of the Chamber's members are small businesses with 100 or fewer employees, 70 percent of which have 10 or fewer employees. Yet, virtually all of the nation's largest companies are also active members. We are particularly cognizant of the problems of smaller businesses, as well as issues facing the business community at large.

Besides representing a cross-section of the American business community in terms of number of employees, the Chamber represents a wide management spectrum by type of business and location. Each major classification of American business--manufacturing, retailing, services, construction, wholesaling, and finance--is represented. Also, the Chamber has substantial membership in all 50 states.

The Chamber's international reach is substantial as well. It believes that global interdependence provides an opportunity, not a threat. In addition to the U.S. Chamber of Commerce's 115 American Chambers of Commerce abroad, an increasing number of members are engaged in the export and import of both goods and services and have ongoing investment activities. The Chamber favors strengthened international competitiveness and opposes artificial U.S. and foreign barriers to international business.

Positions on national issues are developed by a cross-section of Chamber members serving on committees, subcommittees, and task forces. More than 1,000 business people participate in this process.

**Testimony of Janet F. Kavinoky  
Executive Director, Transportation Infrastructure  
Vice President, Americans for Transportation Mobility Coalition  
U.S. Chamber of Commerce**

**Senate Committee on Environment and Public Works**

**Hearing on:  
“Water Resources Development Act: Growing the Economy and Protecting Public Safety”**

**September 20, 2012**

**Introduction**

Chairman Boxer, Ranking Member Inhofe, and distinguished members of the Senate Committee on Environment and Public Works, thank you very much for the opportunity to testify about the economic and job benefits of water resources infrastructure. The Chamber appreciates the long tradition of leadership and dedication this committee has shown on water resources issues, and the spirit of bipartisanship that has guided the committee to tackle challenging infrastructure legislation including the Moving Ahead for Progress in the 21st Century (MAP-21) Act.

My name is Janet Kavinoky, and I am the Executive Director of Transportation Infrastructure at the U.S. Chamber of Commerce and the Vice President of the Americans for Transportation Mobility (ATM) Coalition. The Chamber is the world’s largest business federation representing the interests of more than 3 million businesses and organizations of all sizes, sectors, and regions, as well as state and local chambers and industry associations. The ATM Coalition is a nationwide group representing business, labor, highway and public transportation interests and concerned citizens that advocate for improved and increased investment in the nation’s aging and overburdened highway and public transportation system.

The Chamber strongly believes that the nation’s infrastructure—transportation, energy, broadband, and water systems—forms the physical platform of our economy. Previous generations have made critical investments in these systems to boost the economic health and global competitiveness of the United States and improve Americans’ overall quality of life. Some of the nation’s infrastructure—in particular elements on the nation’s inland waterways—is outdated, overwhelmed, and, in some places, literally falling apart. Other elements need continued investment for expansion and upgrades to meet increased demand. For example, the lock system on the Upper Mississippi River cannot accommodate modern barge practices, which use 1,200-foot barge tows. Many of the locks are only 600-feet long, forcing barges to use a time-consuming and dangerous double-locking procedure.<sup>1</sup>

The lack of attention to these issues has real ramifications for America’s competitiveness and economic health. Just last week, the American Society of Civil Engineers released a report quantifying the economic effects of underinvestment in the future: “U.S. ports and waterways

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<sup>1</sup> Transportation Policy Priorities, National Grain and Feed Association, Sept 2009.  
<http://www.ngfa.org/files/misc/TransportationSept2009.pdf>

need \$30 billion over the next two decades to make way for bigger ships and efficiently handle exports and imports to stay competitive. If the investment isn't made, we could see 'export losses of \$270 billion by 2020 and a \$697 billion drop in gross domestic product.'"<sup>2</sup>

Today, I am here to make the case for improving and increasing investment in the nation's water resources infrastructure through a Water Resources Development Act (WRDA). The Chamber's primary interest in a WRDA bill is ensuring that it adequately supports the Army Corps of Engineers' (Corps) navigation mission, which is critical to ensure the viability of the marine transportation system. Businesses believe that investment in a world-class, 21st century water resources infrastructure needs to happen now and be guided by robust, thoughtful, and comprehensive plans for construction, maintenance and operations, and financing.

However, before addressing navigation in this testimony, I want to note that the Chamber recognizes that a WRDA bill provides critical economic and environmental benefits to the nation beyond navigation. For example, flood risk management is another essential mission of the Corps. According to a 2009 Corps report, nearly 94 million acres of land in the United States are at risk for flooding. Since 1936, the Corps has completed over 400 major lake and reservoir projects, emplaced over 8,500 miles of levees and dikes, and implemented hundreds of smaller local flood damage reduction projects. These projects have prevented an estimated \$706 billion in river and coastal flood damage, most of that within the last 25 years. The cumulative cost for building and maintaining these projects to date is more than \$120 billion.<sup>3</sup>

#### **Marine Transportation and the U.S. Economy**

The U.S. Marine Transportation System (MTS), consisting of ports, coastal and inland waterways, the Great Lakes, and the St. Lawrence Seaway, is an integral part of the global supply chain and the broader transportation network. In addition to supporting the nation's economic activities, the MTS provides passenger transportation through ferries, water taxis, and cruise ships and supports national security objectives and recreational activities.<sup>4</sup> It is an integral, energy-efficient, and environmentally sustainable part of the national, multi-modal freight network and the global supply chain.

#### **Generating Economic Growth and Jobs through Goods Movement**

On a typical day, about 43 million tons of commodities, manufactured goods and other cargo valued at \$29 billion, move nearly 12 billion ton-miles on the nation's interconnected transportation network, including sea and air ports, roads, rails, inland and coastal waterways and pipelines. Businesses consider their supply chain from an initial point of origin to the final destination with frequent junctures in between—not via a single mode or as a single node. To

<sup>2</sup> "America's Ailing Ports Invisible Amid the Country's Failing Infrastructure," WashingtonPost.com, Sept 13, 2012. [http://www.washingtonpost.com/local/trafficandcommuting/americas-ailing-ports-invisible-amid-the-countrys-failing-infrastructure/2012/09/13/ef1be512-fdcb-11e1-8adc-499661afe377\\_story.html](http://www.washingtonpost.com/local/trafficandcommuting/americas-ailing-ports-invisible-amid-the-countrys-failing-infrastructure/2012/09/13/ef1be512-fdcb-11e1-8adc-499661afe377_story.html)

<sup>3</sup> Flood Risk Management, Value to the Nation. U.S. Army Corps of Engineers, 2009. [http://www.iwr.usace.army.mil/docs/VTN/VTNFloodRiskMgmtBro\\_lores.pdf](http://www.iwr.usace.army.mil/docs/VTN/VTNFloodRiskMgmtBro_lores.pdf)

<sup>4</sup> Marine Transportation Policy Statement, U.S. Chamber of Commerce, 2009. [http://www.uschamber.com/sites/default/files/ira/files/USCC%20Water%20Transportation%20Policy%20Statement%20FINAL\\_with%20Intro.pdf](http://www.uschamber.com/sites/default/files/ira/files/USCC%20Water%20Transportation%20Policy%20Statement%20FINAL_with%20Intro.pdf)

remain economically competitive both domestically and internationally, many U.S. businesses have developed complex logistics systems to minimize inventory waste and ensure maximum efficiency of their supply chains, including working with the strengths and working around the deficiencies of the U.S. transportation network. There is a clear economic cost when this transportation network fails to support the needs of businesses. According to the Chamber's Transportation Performance Index, systems that do not provide infrastructure when and where it is needed are unreliable, unpredictable, create safety challenges, and are not poised for future growth—costing the U.S. economy nearly \$2 trillion over 2008-2009.<sup>5</sup>

The business community depends on the U.S. Marine Transportation System to move goods to domestic and international markets. The MTS itself is an important part of the nation's economic strength, supporting growth and jobs all across America. Waterborne cargo and associated activities contribute more than \$649 billion annually to U.S. Gross Domestic Product, sustaining more than 13 million jobs, according to the Committee on Marine Transportation System.<sup>6</sup>

The U.S. Army Corps' of Engineers Waterborne Commerce Statistics Center states that in the United States, over 890 million short tons of cargo were moved in domestic waterborne commerce, and over 1.4 billion short tons were moved in foreign waterborne commerce, for a total of just over 2.3 billion short tons of waterborne commerce in 2010.<sup>7</sup>

Of the 1.4 billion short tons moved in all foreign waterborne commerce, over 550 million short tons were exports and almost 1 billion short tons were inbound from foreign markets to the United States.<sup>8</sup>

Markets outside the United States represent 73 percent of the world's purchasing power, 87 percent of its economic growth, and 95 percent of its consumers. You may recall that when President Obama delivered his State of the Union address in January 2010, the Chamber welcomed his call to double U.S. exports within five years. The rationale is clear: the United States cannot rely on domestic consumption (private or public or both) to generate more demand for the goods and services produced in the country. Already, many Americans are making a living selling to markets abroad. According to the U.S. Department of the Treasury, more than 50 million Americans work for companies that engage in international trade. According to the Department of Commerce, one in four manufacturing jobs depends on exports, and one in three acres on American farms is planted for hungry consumers overseas, according to the American Farm Bureau. To be competitive, the United States must make infrastructure investment part of its growth strategy.

<sup>5</sup> Transportation Performance Index – 2011 Update, U.S. Chamber of Commerce, 2011.

<http://www.uschamber.com/reports/transportation-performance-index-2011-update>

<sup>6</sup> Committee on Marine Transportation System, 2012. <http://www.cnms.gov/Background/Index.aspx>

<sup>7</sup> Part 5 – National Summaries, Waterborne Commerce of the United States, U.S. Army Corps of Engineers, 2011.

<http://www.ndc.iwr.usace.army.mil/wcsc/pdf/wcusnat110.pdf>

<sup>8</sup> Part 5 – National Summaries, Waterborne Commerce of the United States, U.S. Army Corps of Engineers, 2011.

<http://www.ndc.iwr.usace.army.mil/wcsc/pdf/wcusnat110.pdf> (Table 2-1)

### Importance of Inland Waterways

The inland waterways system helps make U.S. producers competitive by supporting low-cost transportation of commodities bound for growing foreign markets. In 2012, over 566 million tons of freight valued at more than \$180 billion traveled on the inland waterways.<sup>9</sup> The inland waterways system is the primary artery for more than half of the nation's grain and oilseed exports, for about 20 percent of the coal for electricity generation plants, and for about 22 percent of the domestic petroleum and petroleum products, according to the Army Corps. Exports dependent on waterborne commerce include: coal, chemicals and related products, forest products (wood and chips), iron ore and scrap, paper products, and food and farm products including grain, oilseeds, vegetable products, processed grain and animal feed.<sup>10</sup>

Nucor Corporation, one of the nation's largest steel manufacturers and recyclers, employs 21,000 individuals nationwide. Nucor has placed a priority on expanding steel exports, and because 60 percent of Nucor's steel mills, including Nucor Memphis, have access to deep water, Nucor is well positioned to achieve its export goals. In the first quarter of 2010, Nucor's exports reached 500,000 tons—double the amount of exports from one year earlier. Exports currently represent 11 percent of the company's total production. Water access is critically important to Nucor because it minimizes the cost of transporting raw materials, such as industrial grade scrap typically moved on barges along the inland waterways system. Nucor Steel Memphis is a 500,000 square foot facility located on Pidgeon Industrial Harbor in Memphis, TN. Nucor acquired the shuttered Memphis facility in 2002 and reopened it in 2008 to produce steel bar products, such as special bar quality (SBQ) bars. Nucor has invested more than \$300 million in the Memphis facility to date, more than doubling its workforce to now employ 302 people.

Companies in the agriculture sector, like Cargill, and farmers across the country, depend on the inland waterways system to move their goods to domestic and international markets. In any given year, one billion bushels of grain (or 60 percent of the bulk agricultural exports) move to world ports via the Upper Mississippi and the Illinois Rivers, according to the National Corn Growers Association. On the Columbia River, foreign outbound commerce exceeds inbound commerce (exports/imports) by a ratio of 7:1.<sup>11</sup> The Columbia and Snake River System in the Northwest is the number one U.S. wheat export gateway and the number one U.S. barley export gateway, according to the Pacific Northwest Waterways Association. The Oregon wheat industry depends largely on the Columbia and Snake River System to carry its product to market. Over 85 percent of Oregon wheat is exported, largely to Pacific Rim countries.

Producers are not the only source of economic activity and jobs that arise from the inland waterways system. According to the Corps' 2011 publication, *The U.S. Waterway System – Transportation Facts*, waterborne commerce is moved by the nation's fleet of over 40,000 commercial vessels, including large container ships, tugboats and barges, and other vessels.

<sup>9</sup> Waterways: Working for America, National Waterways Foundation, 2012. [http://www.nationalwaterwaysfoundation.org/study/NWF\\_117900\\_2011WorkingForAmericaBrochure\\_FINAL\\_forWeb.pdf](http://www.nationalwaterwaysfoundation.org/study/NWF_117900_2011WorkingForAmericaBrochure_FINAL_forWeb.pdf)

<sup>10</sup> Part 5 – National Summaries, Waterborne Commerce of the United States, U.S. Army Corps of Engineers, 2011. <http://www.ndc.iwr.usace.army.mil/wcsc/pdf/wcusnat110.pdf>

<sup>11</sup> Part 5 – National Summaries, Waterborne Commerce of the United States, U.S. Army Corps of Engineers, 2011. <http://www.ndc.iwr.usace.army.mil/wcsc/pdf/wcusnat110.pdf> (Table 3-16)

There were over 1,200 domestic vessels constructed in 2008, employing thousands of workers in shipyards and related industries. Here are two examples:

Ingram Barge Company, based in Nashville, TN, is the nation's largest inland marine transportation company and has operations throughout most of the nation's inland waterways system—from New Orleans, LA up the Mississippi River through St. Louis and into Minneapolis, and up the Ohio River through places like Louisville, KY to Pittsburgh, and many other points in between. Ingram operates a fleet of over 140 towboats and 4,700 barges—which constitutes approximately 22 percent of the nation's inland barge fleet. Ingram provides reliable, cost-effective, and environmentally efficient transportation services to a wide range of industries and sectors, including utilities, agriculture, steel, and chemicals. Millions of tons of cargo moved annually by Ingram Barge for its customers end up in foreign markets, including grain, export coal, and other commodities. Ingram employs over 2,300 workers in well-paying jobs with highly competitive benefits. Furthermore, throughout the current economic downturn, Ingram hired new employees and continued to buy new barges from its builders, thereby maintaining existing American jobs.

The youngest multi-faceted inland tank barge and towing vessel fleet in the United States is operated by Blessey Marine Services, based in Harahan, LA. The company's primary cargoes include residual fuels, asphalt, lubricating oils, petroleum feedstocks, refined petroleum products, petrochemicals and alcohols. Predominantly a "Unit Tow" company, Blessey Marine safely transports its customers' liquid products up and down the Mississippi River and all of its navigable tributaries and canals. Blessey has approximately 500 vessel employees on nearly 60 boats. Employees' annual salaries range from \$35,000 to \$130,000. Employees work a maximum of 20 days on with at least 10 days off a month and receive full benefits.

#### *Inland Waterways Provide Valuable Transportation Capacity*

What would be the impact on the transportation system as a whole if waterways were not a viable mode? A recent study by the Texas Transportation Institute, whose work on road congestion is cited frequently in national debates over surface transportation investment, summarized the importance of inland waterways, an often-overlooked form of transportation when it comes to discussions of U.S. freight transportation policy.

"A Modal Comparison of Domestic Freight Transportation Effects on the General Public: 2001-2009," prepared in February 2012<sup>12</sup> uses data from 2009 (the most recent year data is available across modes) and found that the tonnage moved in the inland river system would amount to an addition of nearly 25 percent more tonnage on the railroad system, with the primary burden on Eastern U.S. railroads. The amount of cargo currently transported on rivers, if put on roads, would increase the percent of combination trucks in the Average Daily Annual Traffic on rural interstates from 17 percent to 27 percent, and cause the Weighted Average Daily Combination Trucks per Lane on segments of interstate between urban areas to rise by 84 percent on a nationwide basis. The impact in the vicinity of the waterways considered would be much more

<sup>12</sup> A Modal Comparison of Domestic Freight Transportation Effects on the General Public: 201-2009, Texas Transportation Institute and Center for Ports and Waterways, 2012.  
<http://www.nationalwaterwaysfoundation.org/study/FinalReportTTL.pdf>



severe than the national average, especially during the heavier truck travel periods. Were it not for the availability of inland waterway transportation, there would be noticeable impacts on road and rail congestion, pavement condition, safety, emissions, and energy usage—a barge can move one ton of freight on one gallon of fuel 616 miles, compared to 469 miles per gallon by rail.<sup>13</sup>

#### *Inland Waterways Challenges*

Unreliability and outdated infrastructure, especially on the inland waterways system, increases the costs of transporting commodities, threatening U.S. competitiveness. The National Grain and Feed Association states, “Improving inland waterway capacity has major national implications for...the fundamental ability of U.S. agriculture to compete in an increasingly competitive global marketplace.” It also affects every single American by increasing the prices of food on the table from corn muffins to chicken to cereal.

Unreliable and outdated infrastructure on the inland waterways system could also raise the price of electricity. If low-sulfur coal from Wyoming cannot get to power plants across the continental United States in a cost competitive manner, not only are jobs in Wyoming at risk, but the electric bills of families could increase.

If you happen to be from the great state of Pennsylvania, where U.S. coal powering approximately half of the country’s electrical power grid comprises 76 percent of the total commerce flowing through the Port of Pittsburgh annually, and through which 25 percent of steel used in the United States moves, consider this example cited in a paper titled “Resilience of Coal Transport on the Three Rivers Waterway System” from the Naval Postgraduate School:

“Coal can move by three different modes of transport. To move a ton of coal one mile by barge would cost \$.005, by railway \$.05, and by truck \$.10....The most notable results from our study show that one attack [disruption] at a critical location along the [Monongahela River and the Ohio River] could double the cost of flow. Four simultaneous attacks [disruptions] would increase the cost of the system 50 times that of normal operations, creating a significant economic impact.” Although this study addressed “attacks” it stands to reason that other disruptions such as a lock failure would have a similar impact on the transit of commerce throughout the system.<sup>14</sup>

The condition and configuration of the locks on the inland waterways system may also mean that every dollar of federal highway investment buys less, which could undermine the good work by this committee to reform federal highway programs to make every federal dollar stretch farther. Take this example from Warren Paving. The industrial lock in New Orleans lets all cargo bound for East Coast and Gulf Ports exit the Mississippi River. This lock is so small that only four barges can go through at once. Because Warren Paving always brings eight barge tows to Gulfport, the two must be broken apart, and an assist boat must be hired to push half the barges through the lock. Then the eight barges are put back together before proceeding. It is a major

<sup>13</sup> Association of American Railroads, 2012. <http://www.aar.org/Environment.aspx>

<sup>14</sup> “Resilience of Coal Transport on the Three Rivers Waterway System,” Naval Postgraduate School, November 2011. <http://neddimitrov.org/uploads/classes/201104NFG/student-projects/EngelandClement-ThreeRiversBarges-ExecutiveSummary.pdf>

expense. Ninety-four percent of the locks on the Mississippi River are 50 years old or more. It is not uncommon for a tow to sit two or three days waiting to get through some of the locks. When transportation costs account for 75-80 percent of the aggregate costs in that region, a 2-3 day delay is significant.<sup>15</sup>

### **Importance of Port Infrastructure**

The U.S. port industry includes some \$3.95 trillion in international trade for an all-encompassing range of goods and services, with nearly 1.4 billion tons, valued at \$1.4 trillion, in waterborne imports and exports alone. The federal government should assist state and local governments and the private sector as they anticipate and build for changing ships and technologies, economic growth, and trends in global trade.

Ports across the country are engines for the nation's economy as well as their local economies, and both landside and waterside infrastructure pay dividends.

About 45 percent of containerized exports move via U.S. ports on the West Coast, the same ports that also handle about 45 percent of containerized imports. However, many East and Gulf Coast ports are unprepared, both landside and waterside, to compete with U.S. West Coast, Caribbean, Canadian, and in the future Mexican ports that currently can or in the near future will be able to handle the larger sized vessels soon to be deployed through both the Suez Canal and the expanded Panama Canal. The capital infrastructure investments required to handle larger vessels and increased cargo volumes will include increased channel depths, greater crane outreach capability, and more intermodal (truck and rail) capacity. During a presentation this summer to the American Association of Port Authorities, Martin Associates stated, "Investment in port infrastructure will be critical to compete with Caribbean transshipment hubs for development of logistics centers and off-shore distribution activity...In addition to deepwater ports' needs, inland ports will require investment."<sup>16</sup>

Ports not only have a positive impact on the national economy, but also lead to economic development and job creation at the state and local levels. These benefits should not be overlooked as Congress and stakeholders build the case for action on a WRDA bill. Here are several examples.

A recent study by Business and Economic Research Center at Middle Tennessee State University assessed the contributions of the proposed \$35 million investment in the Ports at Cates Landing in Northwest Tennessee along the Mississippi River to the economy of the three-county region and its surround areas. The study found that the proposed investment over the 50-year life of the port will generate \$60.4 million in transportation cost savings and have substantial beneficial regional economic impacts including an increase in local government revenues and per capita income, a reduction in unemployment and poverty rates and reverse the declining population trend by creating employment opportunities in the region.

<sup>15</sup> E-mail from Steven Warren, Warren Paving, to Jay Hansen, National Asphalt Pavement Association, 09/14/2012

<sup>16</sup> The Dynamics of the US Container Market and Shifting Trade Patterns – Implications for Future Investment to Promote US Export Activity and Economic Growth, Martin Associates, 2012. <http://aapa.files.cms-plus.com/SeminarPresentations/2012Seminars/12MFDC/Martin.pdf>

In the city of Long Beach, California, the Port of Long Beach operations supports 30,000 jobs—one in eight jobs in the city. Statewide, the number of jobs Port operations supports grows to 371,000 jobs. Nearly \$1.9 billion a year is spent in the city of Long Beach for Port industry services (services purchased primarily by foreign and domestic shippers and steamship companies). The Port of Long Beach operations generates about \$5.6 billion a year in state and local tax revenues.

The Tulsa Port of Catoosa is one of the largest, most inland river-ports in the United States. Located at the head of navigation for the McClellan-Kerr Arkansas River Navigation System in Northeast Oklahoma, the Tulsa Port of Catoosa customers send and receive over 2.2 million tons of cargo each year by barge, rail, and truck. Within the Port complex, there are 63 industrial facilities that employ approximately 4,000 people involved in manufacturing, distribution, and processing of products ranging from agricultural commodities to manufactured consumer goods.

In 2008, activity at the Port of New York and New Jersey handled 60.9 million tons of bulk cargo, supported 164,930 direct jobs and 269,990 total jobs in the region and generated over \$11.2 billion in personal income, nearly \$36.1 billion in business income, and over \$5 billion in federal, state and local tax revenues. In comparison, the New York-New Jersey Port Industry in 1993, as measured for a slightly smaller region, supported 166,500 jobs and generated \$6.2 billion in personal income.

The Port of Baltimore generates more than 50,000 jobs, with 16,500 directly linked to Port-specific tasks.

According to a 2004 study conducted by Martin Associates, maritime activity within the Port of New Orleans is responsible for 160,498 jobs, \$8 billion in earnings, \$17 billion in spending and \$800 million in tax revenue statewide.

#### *Port Infrastructure Challenges*

The most pressing port infrastructure challenges are a direct result of the expansion of the Panama Canal. The Panama Canal expansion is scheduled to be completed in 2014 and will double its existing capacity. The new locks will be able to pass vessels large enough to carry three times the volume of cargo carried by vessels today. The availability of larger, more efficient vessels passing through the new locks on the Panama Canal is expected to have at least three major market effects. First, there is significant freight shipped to the eastern half of the United States over the intermodal land bridge formed by the rail connections to West Coast ports. The potential for reduced cost with a water route through the Panama Canal may cause freight traffic to shift from West Coast to East Coast ports. Second, to take full advantage of the very largest vessels able to fit through the expanded canal, but may be too large to call at most U.S. ports, a transshipment service in the Caribbean or a large U.S. port may develop. The largest vessels would unload containers at the transshipment hub for reloading on to smaller feeder vessels for delivery to ports with less channel capacity. Finally, on the export side, the ability to employ large bulk vessels is expected to significantly lower the delivery cost of U.S. agricultural exports to Asia and other foreign markets. This could have a significant impact on

both the total quantity of U.S. agricultural exports and commodities moving down the Mississippi River for export at New Orleans.<sup>17</sup>

As a nation, if we fail to adequately address the demand for expansion in port capacity, landside port and terminal investment, distribution centers and rail and highway networks, the ports outside the U.S. will be viewed as far more cost-effective and efficient destinations. With the Panama Canal expansion, there is a tremendous opportunity, to enhance the competitive advantage of US exports through Eastern and Gulf ports to Asian markets. However this market demand could easily be exploited by other North American ports currently making substantial investments.

When congestion reached a peak in Long Beach in 2004, for example, some cargo was diverted to Lorenzo Cardenas and Manzanillo in Mexico.<sup>18</sup> Mexico is proposing extensive investment in a multi-billion dollar deep water mega-container port able to handle the next generation of vessels, with planned capacity to rival the U.S. Port of Los Angeles and Port of Long Beach combined. The U.S. West Coast ports have become understandably concerned about the diversion of traffic to Mexico as well as those in Canada, citing the Port of Prince Rupert in British Columbia, which began operations in 2007, as potential market diversion. The Port of Prince Rupert boasts an ice-free, 115-foot deep harbor and is about 1,000 nautical miles closer to Asian ports (two-days shipment time) than U.S. ports in Southern California. The Port of Prince Rupert is planning to quadruple its capacity to approximately 2 million TEUs with its Phase 2 Expansion project over the next couple years. Likewise, China continues to propose port-related infrastructure investments outside the United States in ports, such as a deepwater bulk port in Brazil, and overland infrastructure, such as proposed a rail connector linking Colombian coal fields on the Atlantic side of the country to a Pacific port. These investments would improve the competitive position of Brazil as an ore and soybean exporter and Colombia as a coal exporter.<sup>19</sup>

In addition to the challenges posed by shifting trading patterns as a result of the expansion of the Panama Canal and competition from Canada and Mexico, American ports must consider the capital costs of port maintenance, including harbor dredging. Bill Johnson, Director of the Port of Miami, said during his 2012 State of the Port Address, "...If the past is any indication, market dynamics will continue to change—everything from trade patterns to new technologies. We need to anticipate change...stay ahead of the curve..."<sup>20</sup> Putting his money where his mouth was, Director Johnson has been a tireless advocate for a project called "Deep Dredge", which would make the Port of Miami the only port south of Norfolk, VA with a 50 foot depth—capable of handling ships coming through the newly expanded Panama Canal. The project agreement

<sup>17</sup> Press Release, U.S. Army Corps of Engineers, 2012.  
<http://www.usace.army.mil/Media/NewsReleases/NewsReleaseArticleView/tabid/231/Article/2000/us-army-corps-of-engineers-releases-the-us-port-and-inland-waterways-modernizat.aspx>

<sup>18</sup> "Delays at U.S. Ports May Push Nippon, Maersk to Canada, Mexico," Bloomberg, January 13, 2005.  
[http://www.bloomberg.com/apps/news?pid=newsarchive&sid=afStcc\\_I0GQY](http://www.bloomberg.com/apps/news?pid=newsarchive&sid=afStcc_I0GQY)

<sup>19</sup> Press Release, U.S. Army Corps of Engineers, 2012.  
<http://www.usace.army.mil/Media/NewsReleases/NewsReleaseArticleView/tabid/231/Article/2000/us-army-corps-of-engineers-releases-the-us-port-and-inland-waterways-modernizat.aspx>

<sup>20</sup> 2012 State of the Port Remarks, Bill Johnson, Director of the Port of Miami, 2012.  
<http://www.miamidade.gov/portofmiami/library/2012-state-of-the-port-remarks.pdf>

between the Port of Miami and the Corps signed August 21, 2012, will allow “Deep Dredge” to go out to bid. As a result, the Port of Miami expects to create 30,000 new permanent jobs.<sup>21</sup>

Although not related to WRDA, it is important to highlight the need for intermodal connections, last mile investment and congestion management—the landside challenges for ports. This committee should be commended for its leadership in authoring and shepherding through Congress, against significant obstacles, MAP-21, a two-year reauthorization of the highway, transit and safety program. This much heralded transportation reauthorization legislation was a tremendous accomplishment and restored the integrity of essential federal transportation programs. MAP-21 included common sense landmark reforms to cut red tape, streamline the bureaucratic project approval process, consolidate or eliminate nearly two-thirds of federal programs, and ensure that States have more flexibility to direct limited resources to high-priority needs. MAP-21 will greatly improve the business of transportation investment and provide needed certainty for the construction industry nationwide. However, it is imperative that this Committee and the other Committees with jurisdiction over surface transportation policy, immediately begin work on identifying a sustainable revenue source to adequately address the funding shortfalls of the Highway Trust Fund.

The Middle Harbor rehabilitation and modernization project at the Port of Long Beach will create 14,000 permanent jobs and double capacity. The Orient Overseas Container Line (OOCL) has already signed a 40 year lease for the new container terminal—the most technologically advanced and environmentally friendly one at the port. But once the boxes come off of the ships, how will they move? This is why transportation policy needs to be inclusive of all modes of transportation—so that goods can get from origin to destination smoothly and without bottlenecks.<sup>22</sup>

#### **Looking to the Future of the Marine Transportation System (MTS)**

The challenges facing the marine transportation system are well documented and yet the will to rectify them remains elusive. Inadequate investment and insufficient improvements to the MTS threaten its ability to support domestic economic development, interstate commerce, international trade, and future growth. The lack of a coordinated strategy, a backlog of needs, a lack of predictable investment levels and deteriorating project delivery performance creates uncertainty about the marine transportation system’s overall ability to reliably, safely and efficiently transport goods to international and domestic markets, which translates to under utilization.

Despite the recent economic downturn, the growth in international trade is still expected to overwhelm U.S. intermodal freight capacity over the next 30 years: domestic freight volume is forecast to double and international freight volume entering U.S. ports may quadruple, according to the American Association of State Highway and Transportation Officials (AASHTO).

<sup>21</sup>Press Release, PortMiami, 2012. [http://www.miamidade.gov/portofmiami/press\\_releases/2012-army-corp-engineers-deep-dredge-partnership-agreement.asp](http://www.miamidade.gov/portofmiami/press_releases/2012-army-corp-engineers-deep-dredge-partnership-agreement.asp)

<sup>22</sup>Port of Long Beach, 2012. <http://www.polb.com/about/projects/middleharbor.asp>

According to the Army Corps' Waterborne Commerce Statistics Center, waterborne exports increased from approximately 442 million short tons in 1990 to over 550 million short tons in 2008. Waterborne imports increased from approximately 600 million short tons in 1990 to almost one billion short tons in 2008.

The marine transportation system must be prepared to meet future demand for safe, reliable, and efficient domestic and international freight movement. Growth is coming, but the marine transportation system is not ready. Without action to address the challenges described below, the ability of the system to support domestic economic development, interstate commerce, international trade, and future growth will be compromised.

*Absence of a Consistent and Coordinated Federal Strategy*

As a nation, there is no coordinated strategy to manage the assets of the marine transportation system. The nation's ports make improvements and investments independent of one another. States and communities create laws and implement regulations independently that can hamper interstate or international commerce. There are 18 different federal agencies and numerous congressional committees that have jurisdiction over the marine transportation system.

*Aging Infrastructure Affects System Capacity and Reliability*

The aging marine transportation infrastructure, specifically, locks and dams, is affecting system capacity and reliability—of the 257 locks on the more than 12,000 miles of inland waterways operated by the U.S. Army Corps of Engineers, nearly 50 percent are functionally obsolete. By 2020, that number will increase to 80 percent. This ultimately results in more frequent closures for repairs, decreased performance of existing infrastructure, and costly delays. For example, on the Upper Mississippi and Illinois Rivers, the failure to build seven 1,200 foot locks by 2020 will result in \$562 million in lost farm income and a widening of the U.S. trade deficit by an additional \$245 million, according to the National Corn Growers Association.

Another example, more than 10 percent of the maintenance budget for Blessey Marine Services, Inc. is for repairs attributable to "groundings" (i.e. running into things under the water) mostly in the intracoastal waterway because of poor maintenance throughout the system. This translates to nearly \$3 million a year—which does not include the downtime of the vessels and manpower and hours spent planning on how to avoid groundings. In the last 5 years, that amounts to \$15 million Blessey could have used to build new boats and/or hire more employees.

*Interrelated Funding and Project Delivery Issues*

Lack of adequate, reliable funding is one of several reasons that the Army Corps' project delivery performance has deteriorated as the backlog of critical navigation projects continues to grow and repair costs increase.

The revenue in the Inland Waterways Trust Fund (IWTF), which is responsible for sharing the cost of some of these projects, is unable to meet these needs. According to the Army Corps'

2011 U.S. Waterways System-Transportation Facts,<sup>23</sup> the IWTF earned \$84 million in Fiscal Year 2011: \$83.9 million paid by the barge and towing industry and \$0.052 million from accrued interest. The IWTF disbursed \$97.2 million for construction projects, maintaining a balance of \$45.3 million. However, \$13.4 million of the balance was set aside for prior year commitments, leaving only \$31.9 million available for new construction obligations. In addition, according to the Corps, the IWTF's "purchasing power" has been declining since the diesel fuel tax paid by the barge and towing industry peaked at 20 cents in 1995. With revenues directly tied to fuel consumption and not indexed to inflation, in order for the IWTF to have an equivalent 1995 purchasing power today, the barge and towing industry would have to pay a tax of approximately 29-31 cents.<sup>24</sup>

The Panama Canal expansion combined with projected growth in international trade makes maintaining and improving our harbor and channel depths and widths even more critical. According to the Panama Canal Authority, 64 percent of Canal cargo traffic originates or is destined for the United States. There are four major U.S. harbor deepening challenges:

- **Process:** It is often a difficult process with a lengthy timeframe for a U.S. harbor to identify a need for improvement to clearing environmental and other hurdles to obtain appropriate authorization to perform improvement work.
- **Funding Source:** As most improvement operations require significant federal funds, the uncertainties in the federal appropriation process inhibit non-federal funding, which is usually used to match federal dollars.
- **Cost:** The cost of harbor improvements such as dredging escalate as projects languish partially finished, labor and material costs increase, and a lack of sustained funding creates spasmodic construction timetables.
- **Handling Facilities and Space:** In addition to deepening, harbors require expanded cargo handling facilities and improved intermodal connections to handle the increased freight volume and size of larger cargo ships.

Unlike the IWTF, the balance in the Harbor Maintenance Trust Fund (HMTF) continues to grow as the nation's dredging needs go unmet. According to the Army Corps', the Fiscal Year 2009 HMTF equity grew 10% from Fiscal Year 2008 to \$5.11 billion. As an example, maintenance of the port facility at Pidgeon Harbor is critical to the success of Nucor Memphis. Unfortunately, the harbor has been regularly impeded due to silting, which blocks harbor access. Nucor Steel Memphis has actually had to turn down export orders because of silting in the harbor.

#### **Chamber Policy Recommendations Related to the Marine Transportation System and WRDA**

As this committee moves forward with a WRDA bill, the primary interest of the U.S. Chamber of Commerce is to ensure that the nation's MTS supports domestic economic development and U.S. global competitiveness by supporting and enhancing interstate commerce and international

<sup>23</sup> The U.S. Waterway System: Transportation Facts & Information, U.S. Army Corps of Engineers, 2011. <http://www.ndc.iwr.usace.army.mil/factcard/factcard11.pdf>

<sup>24</sup> Inland Marine Transportation System Capital Investment Strategy: USACE Overview, U.S. Army Corps of Engineers, 2011. <http://onlinepubs.trb.org/onlinepubs/mb/Spring2011/grier.pdf>

trade. The Chamber respectfully urges the committee to improve and increase investment in navigation infrastructure to ensure the optimized utilization of the marine transportation system for freight movement.

The objectives of any federal policies that apply to the MTS should be to:

- Drive economic growth;
- Meet future demand for safe, reliable, and efficient domestic and international freight movements;
- Integrate the MTS with the broader freight transportation network;
- Improve access to inland and coastal waterways and ports;
- Optimize utilization of harbors, ports, inland and coastal waterways, the Great Lakes, and the St. Lawrence Seaway for domestic and international freight movement; and
- Harmonize policies for freight movements with Canada and Mexico and support ongoing cooperation on national security, customs, and border issues.

The Chamber's "Marine Transportation Policy Statement," first presented to this committee in 2010, recommends actions in four general areas: improving federal coordination; establishing priorities to maintaining, modernizing, and expanding the system; increasing investment; and creating conditions for successful project delivery.<sup>25</sup> Many of the recommendations are pertinent to development of WRDA legislation, and the Chamber urges the Committee to keep the under consideration.

The United States does not have a coordinated strategy to manage the assets of the MTS. A WRDA bill must work to improve coordination within and between Congress and the executive branch in order to achieve systemic and cohesive priorities, policies, and programs so that the nation's ports make improvements and investments in coordination with one another. States and communities should be encouraged to work together to create laws and implement regulations so that interstate or international commerce is not hampered.

Any revenues derived from the users of the MTS should be fully and solely utilized for their intended purposes and held separately from general funds in the federal budget. Congress should ensure that the annual revenue deposited into the Harbor Maintenance Trust Fund (HMTF) be made available to the Army Corps for critical harbor and channel maintenance each budget and appropriations cycle. The Chamber supports ensuring full use of Harbor Maintenance Tax revenues by offsetting the taxes with collections so that all Harbor Maintenance Trust Fund revenue can be used for authorized maintenance projects. For the Inland Waterways Trust Fund (IWTF), Congress should work with stakeholder groups to establish a long-term revenue source that provides adequate and predictable annual funding for construction of new and major rehabilitation of existing critical inland waterway infrastructure.

Federal investments should not supplant state, local, and private sector resources, but be leveraged to draw additional resources. Congress should continue to provide incentives to attract private investment in coastal and inland ports' landside infrastructure; make more use of federal

<sup>25</sup> Marine Transportation Policy Statement, U.S. Chamber of Commerce, 2009.  
[http://www.uschamber.com/sites/default/files/ira/files/USCC%20Water%20Transportation%20Policy%20Statement%20FINAL\\_with%20Intro.pdf](http://www.uschamber.com/sites/default/files/ira/files/USCC%20Water%20Transportation%20Policy%20Statement%20FINAL_with%20Intro.pdf)



credit models such as state revolving funds (SRFs), state infrastructure banks (SIBs), the Transportation Infrastructure Finance and Innovation Act program (TIFIA), and private activity bonds (PABs); and support pilot projects that provide private investment for inland waterways where feasible.

With respect to the U.S. Army Corps of Engineers, Congress should continue to allow the Army Corps to accept and expend funds from non-federal public entities to expedite the permitting process, allow the Army Corps to reprogram federal funds, and enter into continuing contracts for critical projects consistent with congressional and administrative prerogatives.

A WRDA bill should create the conditions for successful Army Corps project delivery. The Corps' project delivery performance has deteriorated due to the lack of adequate, reliable funding—creating conditions where the list of projects continues to grow and costs increase. Other reasons include inaccurate project cost estimates, significant changes in the scope of the project(s), and inefficient contracting approaches. The Corps should streamline the feasibility study process through a workable project peer review and refined mitigation requirements. Feasibility studies, including National Environment Policy Act (NEPA) compliance, should be completed within 24 months of initiation. Peer review should be concurrent with the Army Corps' analysis and happen prior to the issuance of a Chief's Report. Sustainable environmental approaches should be used to minimize mitigation needs and mitigation banking should be allowed to meet offset requirements. Furthermore federal agencies should promote streamlining the Corps project delivery requirements including permitting.

The Corps should improve the reliability of project cost estimates that are used in congressional authorization and appropriations processes and that form the basis of cost-sharing agreements. Project cost estimates should incorporate, to the greatest extent possible, state-of-the-art planning, design, construction, and project management techniques, particularly those best practices that exist in the private sector.

The Chamber also agrees with other water resources stakeholders that it is critical and urgent to address the speed, cost and project oversight of the Olmsted Locks and Dam Project in order to free up resources for other capital construction efforts along the inland waterways system.

The Chamber is among 200 organizations that endorsed the Inland Waterways Capital Development plan, which contains practical, long-term solutions for addressing the needs of the inland waterways system by prioritizing projects and outlining a potential funding solution. The Inland Waterways Capital Development plan presents a 20 year construction and rehabilitation schedule, recommends raising the inland waterway diesel fuel tax, promotes modifying authorized depths and widths for harbor and channels as needed to accommodate vessels that call at U.S. ports and move on the waterways. This plan is now in legislative form introduced in the House as H.R. 4342, the Waterways Are Vital for the Economy, Energy, Efficiency and Environment Act of 2012 (WAVE4).

## Conclusion

The total value of waterborne freight is estimated to increase by 43 percent domestically and 67 percent internationally between 2010 and 2020. The U.S. Marine Transportation System is an integral, energy-efficient, and environmentally sustainable part of a national, multi-modal freight network, which, as a whole, must accommodate these increasing freight volumes to ensure the efficiency and competitiveness of the U.S. economy.

There is no shortage of evidence, both quantitative and qualitative, to prove the point that America's oldest transportation mode and related water resources systems such as flood protection, need more robust, innovative and effective investment.

So the question is, What will it take for Congress to act?

Will it be the first ship transiting the new, expanded Panama Canal heading for Canada rather than the United States due to the inadequate draft depth of a U.S. port?

What about a family not being able to afford that box of Corn Flakes due to increases in transportation costs for corn after inland waterway unreliability reaches the point where barge operators can no longer work around the present insufficiency?

Perhaps it will be when layoffs hit Wyoming because low-sulfur coal from the Powder River Basin is replaced by foreign imports when it is no longer cost effective for Ingram Barge to transport American coal along the Mississippi River.

How about a flood that forces people from their homes because the levees that are the responsibility of the Army Corps of Engineers fail due to a lack of upkeep?

With a WRDA bill that encourages Corps efficiency, opens up infrastructure projects to innovations such as public-private partnerships, and speeds project delivery, the United States could prevent disasters that cost lives as well as dollars, promote exports and the jobs and economic growth related to America's natural resource, agriculture, and energy industries.

American competitiveness, as well as the nation's utilities, agriculture, steel, and chemicals industries are dependent on a reliable, efficient marine transportation system—requiring significant capital investments in replacement locks, dredging, dams and levees, as well as their continued maintenance and upkeep.

In short, without increased investment and improvement to our marine transportation system, taxpayers—individuals and businesses—will see no end to these unacceptable costs that are a result of inadequate infrastructure investment.

For far too long, the United States has failed to make infrastructure investment a priority, relying on investments Americans made decades ago, and the nation's transportation network is deteriorating rapidly.

America's marine transportation system is an engine for economic growth and job creation. It enables the business community to transport goods in an energy efficient, environmentally-friendly manner to domestic and international markets. The nation will survive this economic

downturn and can support future growth and economic development. The way to jump start that process is to ensure that a critical component of our economy's physical platform—the marine transportation system—is ready. It is an essential investment for the future of our country. One that we can no longer afford to put off.

The Chamber will continue to educate and mobilize the American people to support maintaining, modernizing and expanding the physical platform of our economy and to demonstrate that there is both need and an appetite for increased investment at the federal level. The Chamber will continue to work with other stakeholders groups here in Washington and around the country to find common ground on policy so that there is a chorus of voices generating momentum for moving a WRDA bill forward.

Thank you very much for the opportunity to be here today. I would be happy to answer any questions.

Senator BOXER. Thank you all.

We have been joined by Senator Whitehouse. If it is OK with him, I will ask a first round of questions for 5 minutes, and then I will give you 10 minutes to do an opening statement and round of questions. Is that fair?

Senator WHITEHOUSE. That is more than fair. Thank you, Chairman.

Senator BOXER. Anything for you, sir.

Mr. Soth, your testimony highlighted some of the jobs associated with water resources projects. I don't think people realize how many jobs are created and sustained. Could you go through that a little bit more? Spell it out, the types of jobs. And are they good paying jobs?

Mr. SOTH. The Bureau of Labor Statistics tells us that there are four occupations primarily associated with this kind of construction: laborers, operating engineers, carpenters, and truck drivers, Teamsters. Those four occupations dominate most of the work activity. We do the whole range of things in lock and dam construction consistent with operating engineers. We run cranes, backhoes, excavators, you name it.

When it comes to dredging, there is a unique set of equipment there. We use hydraulic barges, hydraulic machinery that is doing the excavation, and have really complex technology GPS systems associated with them, but it is a little bit of a unique craft. I mentioned in 1927 actually the International Brotherhood of Steamshovel Operators and Dredgemen were merged into the International Union of Operating Engineers, so really dredging is in our middle name in some respects, too, and is an important part of our work.

Senator BOXER. And just so people understand, am I correct when I say these jobs are private sector jobs?

Mr. SOTH. Absolutely, 88 percent of all business establishments in the heavy and civil engineering subsector of construction are private sector, and virtually all of our employers are private sector. The operating engineers are directly hired by some ports around the country, as well, but that is a relatively small number. Virtually all of our employers in the industry are private sector employers.

Senator BOXER. I think it is very important, because there is a lot of dispute about, you know, is this private sector, public sector. Frankly, as far as I am concerned, whether it is a local port authority or private sector business person, my concern is getting the job done so we can move goods, so we can compete. But the fact is, you are saying the vast proportion of these jobs are private sector jobs. Are they well paying, good paying jobs?

Mr. SOTH. Yes. They certainly are. Our training in the industry allows us to command some of the highest private sector wages for production workers that are available out there. As I mentioned in my testimony, that average wage for production and non-supervisory worker is over \$25 an hour, and in all of the private sector I believe it is \$19.50 an hour currently. That is the most up to date data there is out there. So just based on the nationally available data, that is certainly true.

But operating engineers, members of my union, tend to make, frankly, even more money than that \$25, as well as the benefit packages when you are a member of the Operating Engineers Union. So those health and welfare benefits, those investments in our pension, those are critical to maintaining communities and maintaining the livelihood and welfare of our members.

Senator BOXER. So these are jobs that you can support a family on, that you can get into the middle class on, and these are jobs that mostly come from the private sector, which is why my next question is for Janet Kavinoky, who really represents the voice here of business overall. We have different business voices, but you do represent the Chamber of Commerce.

Now, we are facing tough decisions on where to invest our limited Federal dollars, and we hear many arguing for reduced spending on a variety of programs. Unfortunately, they include big cuts in Federal infrastructure. Why is it important to the economy to continue to invest in water resources infrastructure even in tight budget times, Ms. Kavinoky?

Ms. KAVINOKY. I think many of my fellow panelists have made the point that water resources infrastructure is really about supporting U.S. businesses and U.S. jobs. When one-third of the waterborne cargo is bound for the markets that contain 95 percent of consumers, we know that there aren't a whole lot of alternatives for that cargo to get overseas.

Senator BOXER. Right.

Ms. KAVINOKY. And so whether you are in grain industry, such as Cargill, you are in the energy industry, you are doing wood and wood products, you are moving aggregates that benefit transportation in other areas, you need that low cost transportation. Otherwise, other countries are going to start producing those things and selling to those markets where the growth is.

So ultimately it really comes back to being, as we have said for years, the physical platform of the economy. If you don't have one that is reliable, that is predictable, that is safe, and that provides opportunities to support future growth, we won't be able to compete as a country on the basic food, fuel, the feedstocks of what we have in the rest of our manufacturing and services sector.

Senator BOXER. So is it fair to say—because I don't want to misquote you—that the Chamber's position is this is an important investment, should be continued?

Ms. KAVINOKY. The Chamber of Commerce is very consistent in saying we need to increase Federal investment in infrastructure, and in the areas where the industries are supportive of user fees, such as, of course, you saw in the inland waterways capital development plan, we believe that those user fees can support deficit neutral increases in infrastructure investment.

Senator BOXER. OK.

We have been joined by Senator Vitter. Welcome, Senator. I just promised Senator Whitehouse that he would be able to do 5 minutes of his opening statement and 5 minutes of questions, then we will turn to you for 5 minutes opening statement and 5 minutes of questions.

I just wanted to say the reason I asked labor and management to sit next to each other, I want to make the point here that we

are united, business and labor, on this, just as we were on the highway bill, and I think the tone is set here at this hearing for action. You are both calling for action. You are both raising the alarm for action. I so hear you and I am very determined. If I had my way, I would have had this as a markup today, but we hopefully can do it in the lame duck.

Senator Whitehouse, and then Senator Vitter, 10 minutes.

**OPENING STATEMENT OF HON. SHELDON WHITEHOUSE,  
U.S. SENATOR FROM THE STATE OF RHODE ISLAND**

Senator WHITEHOUSE. Thank you, Chairman. Thank you so much for hosting today's hearing on the Water Resources Development Act, known affectionately as WRDA around here.

The nation's water infrastructure is indisputably crumbling, and a meaningful reauthorization of WRDA would play a very important role in both rebuilding that infrastructure and rebuilding our economy.

While WRDA possibilities are more limited than they have been in the past, they remain key local and national opportunities for progress.

At the local level, for me, Madam Chairman, authorization for Rhode Island's Point Judith Harbor of Refuge should be added to fully consider shoreline protection benefits in the ongoing cost-benefit analysis for repairing that breakwater. The Army Corps is presently conducting a major rehabilitation study for the breakwater forming the Point Judith Harbor of Refuge, evaluating the effectiveness of the breakwater in its current condition. Adding shoreline protection as a purpose in the project's authorization will ensure that the Corps can fully evaluate and incorporate those benefits in its analysis and design for that project.

Another small local project is in Warwick Cove, where the navigation channel boundaries must be updated for the Warwick Harbor Management Plan to be approved.

At the national level there are two issues I think we need to address. One is an increase in continuing authority program limits, cap limits, and a second is reauthorization of the national dam safety program.

Cap limits first. Cap limits have not been adjusted for inflation or for construction cost increases. The limit for the section 205 flood control authority, for instance, hasn't been adjusted since 1999, and it remains at \$7 million. According to a Congressional Research Service review of the Army Corps manual, a likely construction project under this authority that would cost \$5 million for levees and floodwalls in 1999 would nowadays be estimated to cost almost \$11 million. If you went to the Consumer Price Index as your inflation rate, that \$7 million project in 1999 would now amount to \$10 million. So I propose adjusting the per project spending limit for the section 205 cap, and I encourage similar increase for all other cap authorities.

On dams, Rhode Island has more than 700 dams. Many of them are very old. The famous Slater Mill Dam that ushered in the industrial revolution was built in 1793. Many of our dams are in poor condition: 179 are rated high risk or significant risk. We are the

second-most densely populated State in the country, so this issue of dam failure warrants serious public safety attention.

This was a real concern during the devastating 2010 floods. There were people sitting and watching at dams. Will they hold?

Rhode Island's tale isn't unique. The nation's dams collectively received a grade of D from the American Society of Civil Engineers' 2009 Report Card for America's Infrastructure. They cited more than 4,000 deficient dams, which included more than 1,800 that would result in loss of life if they failed.

The WRDA bill provides us an opportunity to reauthorize the national dam safety program. Thanks to Senator Akaka's leadership and to the bipartisan hard work of Senators Boozman and Crapo, important legislation to reauthorize this program, the Dam Safety Act of 2012, is ready to be incorporated into a WRDA bill. This bill would improve dam safety across the nation without increasing cost to the Government.

The national dam safety program helps States check for deteriorating dam conditions and helps ensure that States have the technical assistance, training, and procedures they need to prevent dams from reaching a condition that puts communities in danger.

Rhode Island really relies on its partnership with the FEMA dam safety program for funding, for dam hazard classifications, for inundation maps, and to develop emergency actions plans which are required for all high hazard and significant hazard dams. National dam safety program assistance funds were used by the Rhode Island EMA to complete emergency action plans for high hazard dams, to inspect high hazard and significant hazard dams, and make recommendations for their repairs or maintenance, to classify dams, and for aerial photography of dams.

Per the dam safety regulations, high hazard dams are to be visually inspected every 2 years, and significant hazard dams every 5. That is 65 full inspections each year that we depend on to ensure communities throughout Rhode Island are protected from these deteriorating structures.

Mr. Herrmann, we particularly appreciate the support from the American Society of Civil Engineers for this bill, as well as the support from the Association of State Dam Safety Officials.

One final comment on a common theme in the witnesses' testimony that I think all of our States here, Louisiana, California, and Florida can agree with, and that is the importance of port infrastructure for jobs and local economies. We have seen this first-hand in the Ocean State. Our ports in Providence and Quonset Point have been bright spots throughout our prolonged recovery. Quonset Point is poised to surpass Los Angeles, believe it or not, Madam Chairman, to become the sixth largest point of entry for automobile imports into the U.S.

With the help of a TIGER grant that Senator Reid and I fought very hard for, the Quonset Port has reinforced their pier and purchased a mobile port crane, significantly increasing the capacity to process cargo and positioning Quonset as a potential hub for the assembly of offshore wind turbines, which could mean up to 800 jobs at that port.

Rhode Island's ports and ports throughout the country are critical to the flow of commerce and to providing jobs for hard working

Americans. As we work toward a WRDA reauthorization, I agree with the witnesses that we should not lose focus on the importance of our ports.

Since I mentioned Mr. Herrmann in my remarks, let me ask if he would be interested in speaking for a moment on the question of the dam safety program. Once again, I appreciate the support of the Society of Civil Engineers, and I think your calling out America's infrastructure with these grades has been important to sharpen America's focus on this issue, and the fact that we have a D for the dam infrastructure in this country when so much life and so much property exists in the wake of the catastrophe to ensue if dams let go was a very important signal.

Mr. Herrmann.

Mr. HERRMANN. Thank you, Senator.

As you mentioned earlier, the Report Card for America's Infrastructure gave our nation's dams a grade of D. That was a 2009 Report Card. We have another one coming out in 2013, which we will take a look at the grade at that point.

Senator WHITEHOUSE. Are you expecting much improvement?

Mr. HERRMANN. We are looking at the numbers right now, coming up with it. I am not saying one way or the other at this point.

Senator WHITEHOUSE. OK.

Mr. HERRMANN. We are going to keep a lid on it.

One thing that is interesting is that if we looked at the cost to rehabilitate just the most critical dams, that would be \$16 billion. If we looked at the cost to rehabilitate all the dams, that would be \$51 billion. It is a large number. It is something that we need to do to protect the public safety.

As you mentioned the high hazard dams, those are ones that, if they fail, they could cause loss of life and property, and they are very critical. We really should be looking to repair those as soon as we can.

Dams are very important, as you have brought up, and there are a number of areas where we can address that.

Senator WHITEHOUSE. Let me ask one additional question in the minute and a half that I have remaining, and that is: there is an old New England expression that a stitch in time saves nine. That infrastructure repair, if it is done promptly, can be more cost effective than if the infrastructure is allowed to further degrade and more complex and costly repairs are acquired, or as Senator Vitter saw in his State, God forbid, the infrastructure fails, and there are catastrophic consequences from that failure.

It strikes me that, particularly when we are in a very low interest environment, the mathematics of infrastructure investment would suggest investing now while the costs of the project are where they are now, rather than at the higher level that they will be later, and that the interest costs are not going to offset that the way it might in a 17 percent or 18 percent interest rate environment, because interest rates are now so low.

Does anybody have any comment on the fiscal merit of moving on infrastructure now in this low interest environment?

Mr. HERRMANN. The investment for maintenance for these early works, one of our State agencies has put together a statistic that for every dollar you spend in maintenance you save \$16 in repairs



and rehabilitations later one. So clearly investing now in maintenance and keeping these things in good order definitely pays off in the future. It is an investment.

Senator WHITEHOUSE. So even if you are a fiscal conservative you should support this kind of investment?

Mr. HERRMANN. It pays back more than you are investing.

Senator WHITEHOUSE. Thank you.

Senator BOXER. Thank you so much.

We are going to have Senator Vitter for 10 minutes, and then we are going to turn to Senator Merkley for 10 minutes.

Senator Vitter, you can do an opening statement and then questions, however you want to use your 10 minutes. All right? But we are going to go to Senator Vitter for 10 minutes first.

**OPENING STATEMENT OF HON. DAVID VITTER,  
U.S. SENATOR FROM THE STATE OF LOUISIANA**

Senator VITTER. Thank you, Madam Chair, for this important hearing, and thanks to all of the witnesses.

I certainly strongly, strongly support the priority of passing a good, robust WRDA bill as soon as possible. It is my absolute top priority on this Committee. It has been 5 years. That is way too long to get a solid, robust water resources bill. And I am frustrated we are taking it up at the very, very end of this Congress, but better late than never. We need to take it up and act as quickly as possible, including if it bleeds into next year as soon as possible in the new Congress.

I appreciate all of the witnesses here and all of your testimony, but my frustration, Madam Chair, which I hope we can correct with a future hearing, is that the central player in all of this isn't here, the Corps of Engineers. My single biggest goal in the new WRDA goal is significant, important reform of the Corps of Engineers' bureaucracy and process.

The fact of the matter is, the Corps of Engineers is a broken bureaucracy, and their process for projects—whether it is maritime, flood control, other vital infrastructure projects—is a broken process. That is for a whole host of reasons, some of which lay at their doorstep, some of which lay at ours in Congress or ours as a nation.

My goal in saying this is not to point fingers; it is to focus on a real problem that I think needs to be at the center of this WRDA effort, because if we don't fix this broken process we will never begin to touch all of that infrastructure that needs upgrade and investment.

I hope we have a hearing soon focused on the Corps, focused on the fact that so often projects are studied and re-studied and then re-studied for literally decades before a shovel hits the ground. And as you might expect, costs over that time go through the roof, so we are like a dog running after its tail, never, ever coming close to catching it.

I hope we will talk about the RAMP Act and the fact that dedicated funds from the maritime industry that are supposed to be used for dredging are essentially stolen, half of it stolen every year for other unrelated programs in the Federal budget.

And certainly in this process I hope we will talk about a proposal I have with Bill Nelson of Florida, a bipartisan proposal to push

more project manager responsibilities for more of these projects down to the State and local level, where I am convinced the work can be led to the same standards but much quicker, much cheaper. That is essentially what we do on the highway side. We have a Federal Highway Administration, but they are not the project manager on every Federal highway project. In fact, they are basically the project manager on none of them, and we move that responsibility to the State and local level generally, with good results expediting and cost saving.

We need to focus on this important need to fundamentally reform the Corps as a bureaucracy and the Corps process, or else I am afraid we can pass WRDA and one a few years down the line and a third one after that, and we will continue to be a dog running after its tail, never coming close to catching it.

Thank you, Madam Chair.

Senator BOXER. Thank you so much.

Before I call on Senator Merkley, I wanted to tell you that we have been working with your staff in good faith for a long time now, and with Inhofe and Baucus, the Big Four, so I am a little frustrated, too, because we don't have specific, in writing, back from everybody.

So the way I am going to approach it, and I think it is going to be good, is I will put together a draft, sort of my idea of what it should be, and then we will give that to your staff, to Senator Inhofe's staff, to Senator Baucus' staff to re-write it, cross it out, add, and then I would hope you could have that, since we are all frustrated. It has been way too long.

I would say one of our major problems is the Congress—not me—voted to do away with earmarks. I think it is ridiculous. I think as a result of that you have Administration with all the power, whether it is this one or a Romney one or a Bush one. I believe it is our job. But sadly, we can't get it done because President Obama believes there should be no earmarks, agrees with the majority of the Congress. Not me.

I say not me with feeling, because I personally—and I don't even know where Senator Vitter stands on it. It is not important for this conversation except I trust him and Senator Landrieu on what is happening on the ground in his State more than I trust any Administration. I trust myself, Senator Feinstein. I trust Senators and Members of Congress who know the ground on which they live to make these decisions. That is the reason it is frustrating for all of us.

We all have different reasons to be frustrated, and I do look forward to working with you on reforming the Corps. I know the frustration you have had. I have done everything in my power to help you in Louisiana, and you have helped me with Sacramento and so on. So I just want you to know that I am excited to hear your enthusiasm for a bill.

It is worth noting that the last bill passed out of this Committee was quite bipartisan, to the extent that it was vetoed by George W. Bush. What did we get? Seventy votes, I think, and an override plus. So it is very strongly supported.

We have our challenges because there are no more earmarks, so we have to figure out a way to set in place standards for projects,

and we are not going to have any earmarks because we can't because there will be a hold on the bill, it goes nowhere. So we won't have projects; we will have standards for projects, and that is what we are working on.

So just to reiterate, because I think it is very important because, Senator Vitter, you have expressed the feelings of a lot of people around here when you say it has been far too long since we have had a WRDA bill. I couldn't agree with you more. It was far too long until we had a highway bill, and with your help and others we broke that, and we can do it again. Regardless of who heads this Committee, I am not worried about WRDA. I am worried about other things, but not worried about WRDA, so we will get a WRDA bill done.

But just to expedite it, I will get my dream bill in place, give it to you and your staff, give it to Senator Inhofe and his staff, give it to Senator Baucus. Take a pencil and a pen, cross out, add, and let's get started. And then if that process goes well over this period of time when we are not here, as soon as we get back, if we can reach agreement during the break, and maybe we will talk during that time, sir, then we can bring the actual bill for markup in the lame duck, just to put our marker down and take it to the leadership on both sides.

I now call on Senator Merkley. Sorry I went on so long, Senator. Go ahead. You have 10 minutes.

**OPENING STATEMENT OF HON. JEFF MERKLEY,  
U.S. SENATOR FROM THE STATE OF OREGON**

Senator MERKLEY. Thank you very much, Madam Chair. And thank you all for being here. I think this hearing is very important to create some momentum.

I hold a lot of town halls. I think it is now 144 since I was elected. At every town hall I start with a half-hour pre-meeting with the mayors and city commissioners and State legislators and county commissioners, and it is very hard to get through any one of those gatherings without a number of key water projects being raised, water projects of the type that would be funded through the Water Resources Development Act or WRDA bill: waste treatment, bank and wetland restoration, dredging for channels, navigation channels, dredging for turning basins, levee repair, levee recertification, dam repair, and so on and so forth.

So I appreciate the testimony you have brought forward to help focus attention on this vital infrastructure; not only this is a great time to be building infrastructure in America when the construction industry is flat on its back and interest rates are low.

So I know that projects may not be identified as in the past. Certainly I will be advocating for whatever pools of grant or financing exist for the projects in Oregon. I have a long list here of projects that I have talked with Oregonians about, often essential to the success of our communities, both urban and rural.

I know you all hear this type of report from virtually every Senator, but probably the reason that everyone up on this panel comes from a coastal State is it is a particularly powerful issue if you come from a State where the economy is dependent upon port access, ocean access, as our States are.

I wanted to connect with you all in terms of one key piece of this puzzle, which is the harbor maintenance trust fund. It is my understanding that collections have far exceeded the funds that have been appropriated for harbor maintenance, resulting in water "surplus." I put surplus in quotes because I believe a surplus has essentially been dedicated to national debt. But it means harbors are paying a very specific fee for a very specific purpose, for a purpose that is not adequately funded, and yet the funds are being diverted.

I would just like to hear from you all whether you support this current policy of diverting funds, or you would like to see these funds utilized for the reason that they are collected in the first place.

Janet.

Ms. KAVINOKY. Thank you, Senator.

The U.S. Chamber of Commerce is a strong supporter of the RAMP Act. We absolutely believe that the funds that are deposited in to the harbor maintenance trust fund should be fully utilized every year for their intended purpose. There is no reason to let maintenance dredging needs go unaddressed while dollars that users are paying sit in a fund. In fact, Senator Vitter has been such a strong supporter of full utilization of the harbor maintenance trust fund. You have. Many others have. And the Chamber will continue to fight with the coalition to find a solution so that those funds can be used for their intended purpose.

Senator MERKLEY. Would anyone else like to comment?

Mr. Bridges.

Mr. BRIDGES. Yes, thank you. The AAPA completely agrees with the Chamber in this matter. Currently, we believe there is a \$6.4 billion balance in this trust fund, \$1.5 billion being collected, and yet only \$800 million is appropriated for this very worthwhile cause.

So we fully and strongly are committed to full use of the harbor maintenance tax for the intended purposes.

Senator MERKLEY. I would ask, Madam Chair, do you think this is a possibility as we debate a WRDA bill that we can possibly get the harbor maintenance trust fund dedicated to actually being used for—

Senator BOXER. That would definitely be something that I want to do.

Senator MERKLEY. Thank you. And thank you, Senator Vitter, for being a champion on this topic. I appreciate that. I go to community after community after community that says, What are we going to do about the siltation of our channel that we have been dedicating funds to, we have been contributing funds to this purpose, and the work is not getting done because it is sitting in a bank account somewhere. I just think that Senators who don't come from coastal States and understand how important those ports are, we need to collectively, from inside the building and from outside the building, educate them about that.

I would like to turn to another issue. Janet, this may be something in your world, but one of the previous Water Resources Development Acts had a section designed to streamline the permitting process for both large and small entities, section 214, and I wanted

to find out what are the results. I would open this up to anybody who would like to respond to it. But whether this authority for streamlining the permitting has been beneficial in trying to do work more effectively, more efficiently.

Ms. KAVINOKY. Senator, as a matter of fact the Chamber is a strong supporter of section 214. When we talk to our members, our partners like the Pacific Northwest Waterways Association, what we have found is it has helped make significant strides. That is something I think can be built upon in the next WRDA bill. As Senator Vitter and Senator Boxer talked about, the frustration, the need for Corps reform means that we can take the best elements of section 214 and find additional ways to streamline processes and increase those partnerships.

I will be happy to address some of the more specific benefits for you in some follow up questions if you had those for the record.

Senator MERKLEY. Great. Thank you.

Would anybody else like to comment on this?

Mr. BRIDGES. Yes, I would like to echo those sentiments and just magnify by saying that more than half of the Corps' districts are currently using this process. It has been very beneficial to the agencies that have been involved in that partnership. So we would encourage making section 214 a more permanent part of any future WRDA bills.

Senator MERKLEY. Well, thank you. I just want to close by, again, appreciating your testimony and your help in bringing expertise to build momentum.

Madam Chair, thank you for spearheading this effort.

Senator BOXER. Thank you so much, Senator.

We have been getting a very good, united response from all of you. I just have one more question I was going to ask Mr. Calhoun. I believe the next WRDA bill should look at the issues addressing the inland waterways, and this is particularly interesting to Senator Inhofe. He is very concerned about this. Many recognize we need to ensure the system is functioning as efficiently as possible, and I plan to work with my colleagues to evaluate recommendations for improvement of the system. How much longer do you think the existing system can continue to operate before we face significant impacts on its ability to reliably move goods?

Mr. CALHOUN. No longer at all. We are facing issues today on the riverways. Over the weekend, this happened to be an accident, but at lock and dam 27, that lock has been shut down, reopened at midnight last night, and created economic harm of \$2.5 million to \$3 million a day due to being shut down. So these closures, whether they are scheduled or unscheduled due to maritime accidents or due to just deteriorating of the infrastructure, continue to create problems for navigation, and it is adding cost to the system. It is still operating, but at a much higher cost. And as the cost goes higher, we become less competitive in world markets.

I can't predict when we are going to see another lock wall collapse and fall into the river. I am not an engineer. We are very reliant upon the U.S. Army Corps of Engineers to tell us what needs to be done and what the priorities are.

I was part of the Inland Waterways User Board when we addressed the capital development plan, and we went through and we

tried to prioritize the projects and identify which ones were in the worst shape; we tried to identify which ones created the most economic benefit for the nation. It is very, very clear that we need to do something, and we need to do something now.

Senator BOXER. Does anyone else want to add to that issue about your concern about the ability to operate without moving forward with a robust bill?

Ms. KAVINOKY. Certainly, as I pointed out in my oral statement, there are many areas of the economy that are affected currently. Look at the aggregate industry and how that could erode the benefits of the Federal highway bill. It is also important to point out that we talk a lot about containerized goods movement, but in particular in southeast Louisiana and southwest Texas, or I may have that wrong and it could be southwest Louisiana and southeast Texas. That might make more sense.

The nation's crude oil industry and refining are strongly dependent on having adequate harbor depths and channels. We are talking about America's energy security. We are talking about the movements of the pulp and paper industry. America's steel industry is strongly dependent on waterways. And we hear again and again from our members that unreliability, the question of can we actually get it there on time, is fairly significant.

So I think across the board we need to address these issues. We are seeing problems already today.

Senator BOXER. Yes. Well, I thank you all. I was going to say something here, and I think I will about how we are going to proceed. I already said I am going to put together a bill, and I am going to get it to my colleagues on both sides for their comment, and then hopefully we will have a really good draft that is a bipartisan draft.

At the point that we have a bill, I hope I can call on each and every one of you to help us, because we did that with the highway bill. It was very successful. So if you all get a call from me, I hope you will take it. Can I get that assurance? Excellent. I am not suggesting after I speak to you that you will be part of the effort, but I think you will be, because I do plan to have a bipartisan bill and a strong bill.

I see Senator Boozman is here. I was just going to close down, but I am happy to stay for you, sir. Go right ahead. I will defer closing down. Use your time for whatever you want.

Senator BOOZMAN. Thank you, Madam Chair.

Senator BOXER. Sure.

Senator BOOZMAN. That is very kind.

Senator BOXER. Sure.

Senator BOOZMAN. This is so important. I really just wanted to thank you and Senator Inhofe for having this hearing and certain to express the fact that I am totally committed to going forward with the process.

With that, what I would like to do is put my opening statement into the record.

Senator BOXER. Absolutely.

[The prepared statement of Senator Boozman was not received at time of print.]

Senator BOOZMAN. Again, I apologize for not being here. We are in a situation now where we have got probably 2 weeks' worth of work to do in about 2 and a half or 3 days.

Senator BOXER. That is right.

Senator BOOZMAN. So it makes it very, very difficult. But I do appreciate you all being here, appreciate the testimony. I had an opportunity to look at some of that and will continue to look at it now that we have had the hearing.

As I came in I was listening to Senator Boxer with the admonition that you might be hearing from her on the phone and things like that. I think the good thing in this particular situation, we hear a lot about the in-fighting of Republicans and Democrats, but I think we are all united on the Committee to get this done.

Senator BOXER. We are.

Senator BOOZMAN. I appreciate your leadership, Senator Boxer.

Senator BOXER. Thank you so much. I am so glad you came, and I just was going to tell your staff we are going to present a draft bill to everyone to take a pen to and add, subtract, comment, whatever you want to do, because we really need to have a hearing on the bill when we get back after the election, so that is the goal.

I appreciated how you helped us on Highways. I appreciate how you are helping on this, because we all agree on this one. I mean, today I have sitting next to each other the Chamber of Commerce and the Union, just as an example. It is the same idea.

Staff looked up when we overrode the veto of President Bush on the WRDA bill. We had, I think, 77 votes to override. It is clear that we need to get these things done.

I really want to say thank you to all of you. You all were eloquent; you were clear. There is no doubt about what we need to do, and we need to do it quickly. I look forward to working with colleagues on both sides, and certainly working with all of you.

I ask unanimous consent to enter letters and testimony to the record supporting action on the WRDA bill: the Associated General Contractors, Association of State Dam Safety Officials, National Waterways Conference, National Levee Issues Alliance, Association of State Floodplain Managers, The Nature Conservancy, the Water Resources Coalition.

[The referenced information was not received at time of print.]

Senator BOXER. This reminds us of when we undertook the highway bill, so let's hope that our efforts, Senator Boozman, have the same effect: that we get this done as soon as possible.

I look forward to working with everybody on it.

Thank you so much. We stand adjourned.

[Whereupon, at 11:20 a.m., the Committee was adjourned.]

[Additional statements submitted for the record follow:]

STATEMENT OF HON. THOMAS R. CARPER,  
U.S. SENATOR FROM THE STATE OF DELAWARE

Madam Chair, Ranking Member Inhofe, thank you for having this hearing today to spotlight the benefits of investing in our nation's water resources.

Today's hearing is about the job creation potential of investing in water infrastructure—ports, navigation, inland waterways, flood control, and environmental restoration.

I'd like to start by talking a little bit about the context in which I view this legislation.

I have a short recipe to continue to drive our recovery: tax reform, infrastructure, workforce, R&D, and trade.

As I frequently pointed out during our efforts to pass an aviation bill and a transportation bill earlier this session, now is a critical time to be focused on infrastructure investment.

However, it is also a particularly challenging time, as both Federal and State governments are facing daunting deficits.

In this context, I believe that a WRDA bill can address three of the five points of my plan: we can invest in water infrastructure that boosts trade and helps us sell American products around the globe, and we can do so in a way that is fiscally responsible.

In other words, we must continue to invest, but we must also to invest more wisely.

There are some excellent examples of such projects in my State of Delaware.

We are in the process of deepening the main channel in the Delaware River from 40 to 45 feet.

This will help ports up and down the river, including the Port of Wilmington, to accommodate new, bigger ships that will begin arriving on the East Coast when the Panama Canal expansion is complete.

A deeper channel means greater trade—that is a message I heard from businesses at the Port of Wilmington when I visited recently.

Flood control projects along Delaware's Atlantic coast are another great example. These projects protect our coastal population and property from storm damage, which supports an entire tourism industry along the Delaware coast.

Tourism is the fifth-largest private sector employer in Delaware representing about 15,000 full time jobs and \$750 million in annual revenue.

So investment is critical. However, as important as projects like these are, we also need to be mindful of provisions that can make sure our investments are smart, strategic, and prioritized.

That's why I was proud to support key reforms in our last WRDA bill, in 2007.

For example, I was proud to lead on an amendment to require independent peer review of projects.

In 2006 the Government Accountability Office had reported to Congress that recent Corps studies "did not provide a reasonable basis for decisionmaking" because of "errors, mistakes, and miscalculations, and used invalid assumptions and outdated data."

Since then, this measure has brought greater transparency to the value of Corps' projects and the way that they are designed, built, and operated.

But this provision, which enjoyed wide support in 2007, is slated to expire in 2014.

Similar reforms from 2007 have resulted in a stronger and more cost effective program that better supports our economy, better protects our people, and is more mindful of taxpayers.

It was a pleasure to work with this Committee to pass these provisions in 2007, and since then we've worked to ensure that they are well implemented and having the desired impact.

As we move forward, let's not forget these reforms. Some of the best advice I ever received was, "Find out what works, and do more of it."

Well, now is the time to examine how well they are working, and do more of it. And where they are not working, we must revisit and improve these policies.

Shifting gears, I'd like to talk for a minute about a recent feature in my State's newspaper, the Delaware News Journal.

The feature included more than a dozen articles over the course of an entire week that showed that the sea level along the Delaware coast is rising, and communities are facing major challenges as a result of this.

Now, I have been convinced by the data that this is a result of global climate change.

But whether it is due to climate change or not does not actually matter. Because it is a fact that in Delaware and other States, every year the water line is higher.

We must take steps to ensure that the people and communities who depend on Corps projects can have confidence that those projects are built with rising seas in mind and are built to withstand the stresses of stronger and more frequent storms.

This is not just an issue for coastal States. Record flooding in the Midwest and Northeast last summer and the drought that we are still suffering through across this country are both evidence that we need to be developing projects with a changing climate in mind.

This Committee has tackled big issues several times this year, and I am confident that we can find agreement on a path forward on this legislation.



If you doubt that for 1 minute, just look at how this Committee's leadership defied the naysayers to pass a transportation bill.

So in closing, let me say that I am delighted that Chairwoman Boxer and Ranking Member Inhofe are using every last minute to try to address the important priorities of America.

I want to commend our leaders at Environment and Public Works for putting such a high priority on moving this bill, and I hope that we can continue work on this important legislation when Congress returns after the election.

Thank you.

STATEMENT OF HON. JEFF SESSIONS,  
U.S. SENATOR FROM THE STATE OF ALABAMA

Good morning. Thank you, Chairman Boxer and Ranking Member Inhofe, for holding today's hearing. We are almost 5 years removed from the last time Congress passed a Water Resources Development Act, and today America's program for maintaining and modernizing our ports, waterways, locks, dams, and levees is in need of attention. For that reason, I applaud you both for dedicating yourselves and your Committee staff to this important issue. In my opening remarks this morning, I would like to share my thoughts about priorities that I think are important for this Committee to consider when crafting the next WRDA bill.

First, we need to redouble our efforts to accomplish important infrastructure improvements at the least possible cost to the taxpayer. Even during periods of tight budgets, maintaining and improving our infrastructure is a critical function of the Federal Government and can actually save taxpayer dollars in the long run. My State knows first-hand the value of America's water resources infrastructure. Alabama is home to over 1,270 miles of navigable waterways (ranked 6th nationally in terms of total inland waterway mileage),<sup>1</sup> and the Army Corps of Engineers operates more than a dozen locks in Alabama that facilitate commercial and recreational boat traffic.

We also have one of the nation's largest full service seaports, the Port of Mobile, which provides a waterborne transportation link to more than 20 States and markets around the world. In June of this year the Alabama State Port Authority welcomed the first Post-Panamax sized container ship to the Port of Mobile—the first of many large international container ships that will be frequenting Mobile in the years ahead. The Alabama State Port Authority and its partners have invested more than \$340 million in recent years in facility improvements and modern technology to accommodate the increased demand for the port that will result from opportunities such as the expansion of the Panama Canal.

Homegrown economic development projects also demonstrate the importance of our ports and inland waterways to the nation's economy. I recently visited a coal mining operation in Alabama owned by Walter Energy, which is a leading coal producer headquartered in Hoover, Alabama. Walter Energy employs approximately 4,400 employees and contractors and has operations in the United States, Canada, and the United Kingdom. In May of this year Walter Energy announced plans for a 6-year, \$1.2 billion economic development project in Alabama referred to as the "Blue Creek Energy Project." This project will involve new coal mines (the largest of which will be located in Tuscaloosa County, Alabama), river port operations (including a barge loading terminal in Walker County, Alabama, on the Black Warrior River), a new coal loading terminal at the Port of Mobile, and other investments throughout the State. The Blue Creek Energy Project is expected to begin producing up to 4 million tons of coal for export starting in 2018 with employment exceeding 500 workers. This important project provides an excellent example of the critical role that our nation's ports and inland waterways can play in the development of American energy resources, job creation, and economic development.

Indeed, proper investment in our nation's water resources infrastructure is critical to the nation's economy, environment, and national security. This is a national issue, not tied only to one particular State. Regrettably, President Obama's \$840 billion stimulus program in 2009, which was sold on the idea of infrastructure investment, spent less than 4 percent on infrastructure projects (and a small sliver of that was spent on water resources infrastructure). I would urge the Committee to give serious consideration to all reasonable proposals that will facilitate modernization of our nation's water resources infrastructure in a timely, cost effective, and equitable manner.

<sup>1</sup>U.S. Department of Transportation, State Transportation Statistics: 2011, available at [http://www.bts.gov/publications/state\\_transportation\\_statistics/state\\_transportation\\_statistics\\_2011/index.html](http://www.bts.gov/publications/state_transportation_statistics/state_transportation_statistics_2011/index.html).

Second, I would urge the Committee to focus on much needed reforms to the Army Corps Civil Works program that will ensure that the nation obtains the maximum return possible on its water resources. At this time, I would like to submit for the record comments provided to my office by the Coalition of Alabama Waterways along with an editorial published last year by an Alabama member of the Inland Waterways Users Board regarding needed reforms to the nation's program for maintaining and modernizing the inland waterway system. This letter and the editorial raise important concerns, and I would ask that these concerns be reviewed and considered by the Committee.

Likewise, I understand that Representative Ed Whitfield recently introduced a bill, The WAVE4 Act, which has been endorsed by the national waterway associations and is cosponsored by dozens of Members of Congress, including Representatives Bonner, Sewell, Rogers, Bachus, and Aderholt of Alabama. I am informed that this proposal recognizes that commercial users of the inland river system are willing to accept an increase in the inland waterways fuel charge if that increase is combined with other important reforms to the Corps Civil Works program. I look forward to learning more about this proposal.

Third, I would also urge the Committee to give close consideration to the condition of our nation's flood control projects, including the safety of dams and levees in the United States. The Committee should also evaluate ways to provide assistance, in a cost effective manner, for State level water supply infrastructure needs.

Fourth, I am also concerned that the Army Corps is increasingly exceeding the limits of its discretion to reprioritize water project purposes without the involvement of Congress. I would urge the Committee to ensure that the next WRDA bill contains provisions establishing specific limits to ensure that the Army Corps does not make material changes to the uses for specific purposes at water resources projects without authorization from Congress.

Fifth, I would urge the Committee to consider ways to ensure that the Inland Waterways User Board—the Federal advisory committee established by Congress in 1986 to advise the Congress and the Army Corps on inland waterways issues—has a full complement of members in order to conduct the activities entrusted to the board by Congress. I understand that there was a delay in the Corps' acting upon several recent nominations to the board, one of which involved a nominee from Alabama, and that the board, for a time, lacked a quorum of members necessary to conduct business. Consideration should be given to finding ways to ensure that this scenario is not repeated. The Committee should also closely review and scrutinize the Army Corps' recent proposals to alter the organization and composition of the Users Board.

Sixth, I am concerned by the Administration's failure to properly implement certain directives of the Water Resources Development Act of 2007. For example, section 2031 of WRDA 2007 directed the Secretary of the Army to update the 1983 "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies." The Corps was directed to make these revisions within 2 years and to provide Congress with an "explanation of the intent of each revision, how each revision is consistent with [section 2031], and the probable impact of each revision on water resources projects . . ." However, the current Administration removed this effort from the control of the Corps and handed it to the White House Council on Environmental Quality, which initiated a much broader effort to completely rewrite the principles and guidelines in a manner inconsistent with the clear direction of Congress in WRDA 2007. I would urge the Committee to review this and other situations where the Administration and/or the Corps has failed to follow the directions of the Congress as embodied in prior WRDA bills. In addition, I would urge the Committee to find ways to streamline the environmental review process for water resources projects to ensure that projects are reviewed and approved under reasonable timeframes, and that appropriate exclusions are provided where warranted.

Seventh, the Committee should also consider the impact of recent Corps initiatives to alter operations at certain lower use locks in a manner that will adversely impact recreational and commercial navigation. On September 17, 2012, I sent a letter—joined by other members of the Alabama congressional delegation—to the Army Corps expressing significant concerns with their decision to implement operational changes at several Corps locks in Alabama. It is my understanding that the Corps intends to drastically reduce or no longer perform lockages for recreational watercraft on certain waterways, including the Alabama and Chattahoochee Rivers, and that the Corps has made other lock operation changes impacting both commercial and recreational vessels on these and other rivers in our State. We have been informed that the Corps intends to begin implementing this new initiative as early as October 7, 2012. This decision appears to have been made without adequate pub-

lic notice, public hearings, or an opportunity for the affected stakeholders to submit comments for the Corps' consideration. While I understand that the Corps is acting as part of a national initiative to prioritize the use of available funds, it is troubling that the Corps seems to be acting unilaterally, without the substantial involvement of Congress or key stakeholders, in a manner that will prevent recreational users in Alabama from navigating many parts of our State's incredible network of waterways. This initiative will also impact the commercial use of these waterways and could, thereby, harm economic growth in the region. I would ask our Committee to review this Corps initiative as part of the WRDA process.

Finally, I would like to conclude by urging caution on at least two budget related aspects of your important work. One, I will not be submitting any earmarked authorization requests at this time for at least a couple of reasons. I believe that abuses of the authorization and appropriations processes have contributed to our nation's massive debt problem. Until such time as our nation's fiscal situation improves and much needed reforms to the earmark process are enacted, I cannot support legislation containing earmarks that violate the letter and spirit of the current earmark moratorium. In May 2007 I voted in support of final passage of the WRDA bill in the Senate but was compelled to oppose the final conference report that spent \$9 billion more than the Senate versions and contained billions of dollars in authorizations for earmarked projects that were added during the House-Senate conference. I remain hopeful that the same dynamic will not be repeated during this WRDA process.<sup>2</sup>

Beyond these earmark concerns, there is already a substantial backlog of authorized water resources projects, which strongly suggests that authorizing a slate of new projects would be imprudent at this time. A recent report by the Congressional Research Service (CRS) identified a backlog of more than 1,000 authorized activities and construction projects totaling more than \$60 billion,<sup>3</sup> an amount which exceeds by more than 10-fold the Army Corps Civil Works budget for fiscal year 2012. As importantly, it is imperative that the next WRDA bill comply fully with the Congressional Budget Act of 1974 (Pub. L. 93-344) and the Budget Control Act of 2011 (Pub. L. 112-25). As the Ranking Member of the Senate Budget Committee, my staff and I will be reviewing any budget related considerations very closely.

Again, thank you, Chairman Boxer and Senator Inhofe, for setting aside time this morning to discuss these very important matters. I look forward to hearing from our witnesses and to working with you both on a Water Resources Development Act in the months ahead.

[The referenced information follows:]

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<sup>2</sup>I am a co-sponsor of the "Implementation of the Simpson-Bowles Spending Reductions Act" (S. 1936). This bipartisan bill would implement seven specific spending reforms recommended by the Simpson-Bowles Commission including an end to the unwarranted use of earmarks.

<sup>3</sup>CRS, Army Corps of Engineers Water Resource Projects: Authorization and Appropriations, at 2 (Aug. 19, 2011).



**Coalition of Alabama Waterways**

300A Water Street, #307  
Montgomery, AL 36104

December 5, 2011

The Honorable Jeff Sessions  
326 Russell Senate Office Building  
Washington, D.C. 20510

**Re: Water Resources Development Act Legislation**

Dear Senator Sessions:

The Coalition of Alabama Waterways Associations ("CAWA") thanks you for your support for the inland waterway transportation system as operated and maintained by the U.S. Army Corps of Engineers ("Corps"). We understand that authorizing legislation governing the Corps' civil works program, traditionally referenced as the Water Resources Development Act ("WRDA"), may come before the Senate during the 112<sup>th</sup> Congress. In light of your important role as a member of the Senate Environment and Public Works Committee (the "Committee"), which has jurisdiction over WRDA, this letter provides CAWA's views on matters that may be included in the legislation.

Alabama's waterways provide energy efficient, environmentally friendly navigation; a renewable and emission-free source of hydropower; recreation for more than 3 million visitors annually at federal recreation sites alone; water supply for municipalities, industry, and agriculture; and protection from flooding. Alabama's waterway system provides approximately 50,000 jobs and \$16 billion in direct economic output every year.

Waterways throughout the nation are interconnected and interdependent. We in Alabama depend on the health of the entire system. Accordingly, CAWA has supported the joint efforts of industry and the Corps to develop much-needed reforms for the Inland Waterways Trust Fund ("IWTF"). The IWTF is failing to maintain adequate progress on vital and necessary improvements, including especially lock and dam construction and rehabilitation. As a result, much-needed water resource projects have gone underfunded. Two of the four projects identified as the highest priorities for new construction – the Chickamauga Lock and the Kentucky Lock – are on the Tennessee River, which serves Alabama directly. Without IWTF reform, those projects and others will continue to languish. That places Alabama and the entire region at increased risk.

CAWA supports the Inland Waterways Capital Development Plan, which would increase industry's financial support for the IWTF through the fuel surcharge. We are disappointed by the Administration's failure to support the plan. Regardless, the problems that the plan seeks to address are real. We urge you and the Committee to



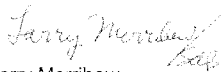
The Honorable Jeff Sessions  
December 5, 2011  
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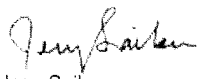
consider reforms that will allow urgent capital improvements to proceed on a reasonable schedule.


We remain concerned about federal support for waterway operation and maintenance through the annual budget and appropriations processes. However, we have limited our comments in this letter to matters that are more appropriate for WRDA legislation. We will be grateful for the opportunity to provide our views with respect to funding for the civil works program generally and Alabama's waterways specifically at another time.

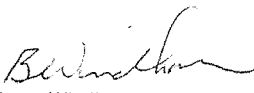
Thank you for your consideration of CAWA's views with respect to the inland waterway system. Please feel free to contact us if we may answer any questions or provide additional information regarding Alabama's waterways.

Sincerely,

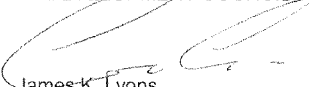
  
Larry Merrihew  
Chairman  
COALITION OF ALABAMA WATERWAYS  
President  
WARRIOR-TOMBIGBEE WATERWAY  
ASSOCIATION

  
Jerry Sailors  
President  
COOSA-ALABAMA RIVER IMPROVEMENT  
ASSOCIATION

  
Cline Jones  
Executive Director  
TENNESSEE RIVER VALLEY  
ASSOCIATION

  
Bruce Windham  
President  
TENNESSEE-TOMBIGBEE WATERWAY  
DEVELOPMENT COUNCIL

  
Billy Houston  
Executive Director  
TRI RIVERS WATERWAY  
DEVELOPMENT ASSOCIATION

  
James K. Lyons  
Director & Chief Executive Officer  
ALABAMA STATE PORT AUTHORITY  
(Associate CAWA Member)



## VIEWPOINTS: We must invest in our waterways

Published: Sunday, February 27, 2011, 5:43 AM



By **Special to The Birmingham News**

By **TIM PARKER**

While Birmingham is not located directly on a river like some other cities in Alabama, it benefits from being close enough to a waterways transportation artery to reap the benefits of some of the manufacturing facilities that are in Birmingham, such as Alabama Power Co., U.S. Steel, American Cast Iron & Pipe Co., McWane Pipe, O'Neal Steel, Drummond Coal, and Walter Energy and others. These companies ship or receive goods and commodities on the Black Warrior River.

In fact, according to 2008 data, there were more than 130 manufacturing facilities, terminals and docks across our state that shipped and received bulk freight tonnage. And those bulk products are moved on our waterways for the lowest cost and in the most environmentally friendly way.

Birmingham residents, like the rest of the country, may not fully understand why the rivers and waterways are so important to our region and to the nation. Our nation's inland waterways are envied by the world because this natural "water highway" running throughout our country provides key access for commerce.

And modern lock-and-dam infrastructure on those waterways is critical to the United States remaining competitive in the world marketplace, to environmental protection, to energy efficiency, to the sustainability of well-paying American jobs and to highway traffic congestion relief. Inland waterways transportation is a key component of the intermodal transportation network and keeps energy costs down, our agriculture and coal exports up, and Americans -- and Alabamians -- gainfully employed.

The Black Warrior River, the Tenn-Tom Waterway and the Tennessee River allow for about 80 million tons of critical bulk commodities valued at about \$19 billion to be transported for export to the world market out of the Port of Mobile.

But waterways infrastructure -- the locks and dams on the rivers -- is in need of reinvestment, just as are roadways and runways and bridges. The lock-and-dam system was built largely in the 1930s and is showing its age, with concrete crumbling, miter gates falling into the river and electrical systems failing. As well, many locks currently in use are too small for today's larger tows and are susceptible to closures and long delays that ultimately mean consumers will pay higher costs for goods and electricity.

The challenge to modernize the inland waterways' infrastructure is the need to create and implement an improved program for the future. The current project funding and delivery system is inefficient and results in much wasted time and money. And while the industry, through a diesel fuel tax paid into the Inland Waterways Trust Fund, has made significant investment in the reliability of the system, far too few navigation projects have been completed. The inland waterways industry is the only commercial segment of the waterways to pay a tax for its use, despite many other beneficiaries such as recreation; stable pools of water for industrial, municipal and agricultural use; hydropower; flood protection; and enhanced waterfront property values. Delays to modernize the lock-and-dam system stretch out over decades, wasting taxpayer dollars and losing transportation cost savings for our national economy.

For example, the Olmsted Locks and Dam project on the Ohio River, when completed, is estimated to save shippers \$500 million annually in fuel, labor and shipping expenses. Instead of providing relief, the project has dragged on due to under-funding, changing requirements and continually rising costs. The project was initially expected to cost \$775 million over eight years and is now projected at \$2.1 billion over 26 years. All this additional cost is passed on to consumers from food to oil prices.

Fortunately, there is a legislative proposal known as the Inland Waterways Capital Development Plan, a comprehensive, consensus-based package of recommendations formulated by a group of nationwide experts to address the need to improve the continued vitality of the U.S. inland navigation system. The plan was developed over a two-year period by the Inland Waterways User Board (on which I serve as a member), which is a federally chartered advisory body that advises Congress on priority navigation projects. If adopted, perhaps as part of a potential Water Resources Development Act this year, the Inland Waterways Capital Development Plan will better address the needs of the entire inland waterways system and provide more funding for greatly needed infrastructure improvements.

To date, the proposal is supported by more than 200 industry members, including national organizations, state, regional and local organizations, and industry groups including the U.S. Chamber of Commerce, the National Association of Manufacturers, American Land Conservancy, National Corn Growers Association, National Grain & Feed Association, Steel Manufacturers Association, National Mining Association, National Council of Farm Cooperatives, and many others from diverse segments of our national economy -- all of whom benefit from inland waterways transportation.

This plan would -- for the first time ever -- prioritize navigation projects across the entire inland waterways system, improve the U.S. Army Corps of Engineers' project management and processes to deliver projects on time and on budget, and recommend a funding mechanism that is affordable to meet the system's needs.

In addition to getting better control on costs and completion of projects, overall this plan would benefit our nation so that we can continue to enjoy our energy-efficient, congestion-relieving U.S. waterways transportation system. These funding parameters would be applied to the entire system rather than just on

a project-by-project basis so that more of the system's critical projects can be completed more efficiently and the waterways can keep America moving.

If we maintain the status quo and make no improvements to the current delivery process, only six projects can be completed over the next 20 years. However, if Congress adopts the Capital Development Plan as proposed, 25 critical infrastructure projects will be completed over the next 20 years.

This proposal is practical and reasonable, reins in escalating costs and provides a path for the future of transporting our nation's -- and Alabama's -- valuable products.

Investment in waterways transportation infrastructure is a way forward for our region and for the rest of the nation. Let's keep Alabama and America moving by adopting this plan.

*Tim Parker is chairman of Parker Towing Co. in Tuscaloosa and is a member of the Inland Waterways Users Board. E-mail: [tparker@parkertowing.com](mailto:tparker@parkertowing.com)*

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[Additional material submitted for the record follows:]



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**Thomas J. Gibson**  
*President and CEO*

September 20, 2012

The Honorable Barbara Boxer  
Chair  
Senate Committee on Environment  
and Public Works  
United States Senate  
Washington, DC 20510

The Honorable James M. Inhofe  
Ranking Member  
Senate Committee on Environment  
and Public Works  
United States Senate  
Washington, DC 20510

Dear Senators Boxer and Inhofe:

On behalf of the American Iron and Steel Institute (AISI), I write to urge passage of Water Resources Development legislation that will authorize the construction, rehabilitation and modernizing of critical water-related infrastructure projects and their funding. AISI is the principal trade association representing the North American steel industry and represents member companies accounting for more than three quarters of U.S. and North American steelmaking capacity.

Our nation's ports and inland waterway systems are crucial to domestic and international commerce, yet a lack of adequate investments are threatening the viability of our nation's global economic competitiveness. Insufficient dredging of our harbors are forcing lighter, inefficient and more costly transportation loads, while obsolete lock and dam facilities in need of replacement or serious rehabilitation have further contributed to congestion, logistical delays and compounded expenditures. According to a recent report by the American Society of Civil Engineers, aging infrastructure in our nation's ports and waterways was responsible for delays costing \$33 billion in 2010, and costs are expected to increase to nearly \$49 billion by 2020. Undoubtedly, these costs are being unnecessarily absorbed by consumers, but also impacting the bottom line of U.S. manufacturers and suppliers who create jobs and economic opportunities.

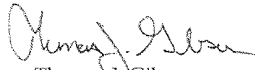
The steel industry is a backbone industry for the U.S. manufacturing sector; in fact, for every job formed in the steel industry, seven additional jobs are created in other economic sectors. We rely heavily on water-borne infrastructure for the transportation of raw materials, such as coal and iron ore, necessary to continue producing American

The Honorable Barbara Boxer and the Honorable James M. Inhofe  
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made steel, but also for the safe and efficient transportation of steel products  
fundamental to all manufacturing.

Significant investments to improve our nation's harbors, ports and inland waterways  
are desperately needed and long overdue. On behalf of the AISI, I commend you for  
illuminating these issues by way of a hearing, and I urge swift passage of Water  
Resources Development legislation that will address the infrastructure needs on which  
our nation's economic growth is dependent.

Sincerely,



Thomas J. Gibson