# Inland Waterways Aff

### Things to add for future

**( ) Impacts for addons**

**( ) Bio-D / Amazon rainforest impact**

### 1ac Plan

#### Plan:

#### The United States federal government should substantially increase investment for inland waterway transportation infrastructure in the United States.

### Other Potential Plans

#### Plan: The United States federal government should substantially increase investment for inland waterway transportation infrastructure by increasing the diesel fuel tax to 26 cents per gallon and commit to cover the full costs of those projects costing less than $100 million.

#### Plan: The United States federal government should ensure a substantial increase in the Inland Waterways Trust Fund.

### 1ac Contention 1

#### Contention 1 is the Status Quo

#### Inadequate funding system has left inland waterways in disrepair --- it’s only matter a of time before a major failure

Boselovic, 12 (3/18/2012, Len, “Locked and Dammed: The region's 23 locks and dams are on the brink of failure,” <http://www.post-gazette.com/stories/news/environment/locked-and-dammed-the-regions-23-locks-and-dams-are-on-the-brink-of-failure-517289/?print=1>, JMP)

While Pittsburgh has some of the oldest locks and dams in the nation, conditions along the rest of the nation's 11,000-mile inland waterway system are not much better. One high-ranking Corps official speaking at an industry meeting last month in Washington, D.C., described the situation as "a crisis headed for a catastrophe."

The precarious status of the waterway system stems from what government and industry officials agree is a broken method of maintaining and replacing aging locks and dams.

Congress has authorized $8 billion in projects that would replace or rehabilitate aging river infrastructure. But it has not fully funded the projects up front. The piecemeal funding the projects receive generates significant cost overruns and construction delays counted in decades, not months or years.

The longer the delays, the more difficult and expensive it becomes to maintain the aging locks and dams. More than half of the nation's locks, which were designed to last 50 years, have been moving along river traffic far longer. About 40 percent of the 89 locks in the Corps' Great Lakes and Ohio division, which includes Pittsburgh, are more than 70 years old.

Corps and industry officials say it is only a matter of time before a major lock or dam fails, an event that would force elected officials and consumers to realize the important role river infrastructure plays.

More than 200 locks and related dams move about 550 million tons of freight annually: coal to power plants, grain from farms to market, fuel oil to New England. More than 20 percent of the coal used to generate electricity and 30 percent of oil and other petroleum products move by barge. About 90 percent of the corn and soy beans exported from Mississippi gulf ports gets there by barge.

While coal accounts for the majority of traffic on Pittsburgh's rivers, barges also move gravel, sand and limestone used in construction, fuel oil, fertilizer and other goods.

Rivers provide a less expensive alternative to other transportation options. Barges are more than $14 a ton cheaper than using rail or truck, according to a 2010 report by a Corps-industry task force that recommended changes in the way lock and dam projects are funded.

"We're going to have a catastrophic failure somewhere in this country and then everybody is going to be up in arms," said Peter Stephaich, chairman of Campbell Transportation, a Houston, Pa., company that operates a fleet of 500 barges and moves about 20 million tons of commodities annually.

Funding gridlock

The $8 billion funding backlog stems from the $170 million Congress and industry generate each year to pay for major repairs to locks and dams or to replace them. Half of the money comes from a trust fund financed by a 20-cents-per-gallon tax barge operators pay on the diesel fuel they use. The government matches that with $85 million in taxpayer money.

At a $170 million-per-year pace, it will take more than 22 years to generate the $3.8 billion needed to complete seven major projects already under way. Those include rehabilitating the Emsworth dam on the Ohio River and building new locks on the Monongahela.

Once that's done -- in the 2030s -- work could start on another $4.3 billion in projects that Congress has authorized but not funded.

Even the extended timeline is jeopardized because another $1 billion has been added to the cost of the Corps' top priority: replacing two Depression-era locks on the Ohio River near Olmsted, Ill., the nation's busiest stretch of river.

Because the $3.1 billion Olmsted project gets most of the $170 million the Corps receives each year for major projects, it will cost more and take longer to complete the Corps' No. 2 priority: the project on the Monongahela authorized by Congress in 1992.

A new dam at Braddock already has been completed. But the work not yet done includes eliminating the 105-year-old locks and dam at Elizabeth, and building two new locks to replace the Depression-vintage lock at Charleroi.

When the project was approved, it was expected to be completed in 2004 at a cost of $750 million.

Because of funding shortfalls, the Lower Mon project is now estimated to cost a minimum of $1.4 billion and will be completed in 2024 at the earliest, 20 years behind schedule.

Steve Fritz, the Corps official managing the project, said if Congress authorizes only minimum annual funding, work will drag into the 2030s and cost upward of $1.7 billion. "The longer you go into the 2030s, the higher that number will climb," Mr. Fritz said.

By then, the Elizabeth lock and dam -- built to last 50 years -- would be nearly 125 years old.

"The poster child for the river system is the Lower Mon project," said Michael Hennessey, chairman of the National Waterways Foundation, a research group funded by companies that move goods on rivers.

Debilitated locks and dams are part of a larger national problem: the lack of funding to repair or replace aging infrastructure that the economy depends on. In 2009, the American Society of Civil Engineers put a $2.2 trillion price tag on fixing roads, bridges, locks and other infrastructure.

Because many lawmakers elected in 2010 promised to slash the federal budget deficit without increasing taxes, it is unlikely that money will be forthcoming for infrastructure improvements.

"It is a function of a kind of unfortunate mentality in this country where, over time, we have become a spending nation and not an investing nation," said Michael Steenhoek of the Soy Transportation Coalition, an industry group pushing for waterways improvements.

"We just need to get back to this mentality of being an investing nation. Great nations invest in themselves," he said.

#### Crumbling infrastructure risks failures across the system that will force freight onto costly and environmentally dangerous alternatives

Toohey, 11 --- President and CEO of Waterways Council, Inc. (9/21/2011, Mike, Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

Mr. Chairman, our inland waterways system includes approximately 12,000 miles of commercially navigable channels and 238 locks at 192 sites throughout the country. Commerce from at least 38 states regularly moves on this system, and it is particularly critical to the Nation's heartland, the Pacific Northwest, the Southwest, and Southeast regional economies.

Our waterways transport more than 44% of the Nation's grain exports, about 22% of domestic petroleum and petroleum products, and 20% of the coal used in electricity generation. Every year, approximately 600 million tons of waterborne commerce transit the inland waterways, a volume equal to about 16% of all intercity freight and valued at nearly $70 billion. If that amount of cargo did not move by water, it would require an additional 58 million truck trips to transport all of that traffic on the Nation's already-congested highways. Needless to say, the negative economic and environmental impacts from such a result would be severe.

Mr. Chairman, despite all of these advantages, our inland waterways infrastructure is suffering and in need of immediate modernization. More than half of the 238 locks in our system are over 50 years old and have exceeded their economic design lives. Over the past decade, we have seen critical lock failures and significant unscheduled down time at locks across the system. In 2007, for example, the Corps of Engineers reported that locks were unavailable 95,877 hours for scheduled repairs, 42,530 hours for unscheduled repairs, and 19,023 hours for unscheduled mechanical breakdowns - totaling 157,430 hours or 6,560 days of down time across the system.

And the situation is worsening each year. That is simply unacceptable. If this situation persists, it threatens to erode the very fabric of our inland waterways system. WCI is dedicated to preventing that outcome.

### 1ac Economy Advantage

#### Contention \_\_\_\_\_ is the Economy

#### The economy is improving now but growing congestion on inland waterways will expose gaps in the infrastructure and tank competitiveness

The Herald Dispatch, 12 (5/24/2012, “Nation should invest in waterways facilities,” <http://www.herald-dispatch.com/opinions/x1198917856/Nation-should-invest-in-waterways-facilities>, JMP)

America's inland waterways are a valuable part of the U.S. economy.

As we see every day on the Ohio River, our system of waterways help move coal, steel and many other products across the country. It not only is an inexpensive way to ship many goods, but it also takes the burden off our highway system.

For example, the load of dry cargo that one barge can carry would require 16 rail cars or 70 tractor-trailer trucks on the road. With chemicals and liquid cargo, the ratio is even higher.

But the aging system of locks and dams that keeps freight moving on our rivers needs a lot of work. More than half of the locks are more than 50 years, and replacement and repair projects have been backed up for years.

Meanwhile, breakdowns back up barge traffic by hours and days.

The slowdown in the U.S. economy over the past few years may have taken the pressure off the problem, experts told USA TODAY this week. But as the economy begins to recover, the shortcomings of this piece of the nation's infrastructure will become more apparent.

"The good news is the economy is turning," Dan Murray, vice president of the American Transportation Research Institute, told the newspaper. "The bad news is we expect congestion to skyrocket."

That means more shipping expense for business that could hinder the recovery and make U.S. companies less competitive worldwide. Ultimately it could increase cost of products and services for the American consumer, too.

#### Even if there are no catastrophic failures the lack of investment injects uncertainty that will undermine the viability of the inland waterway system

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Has Aging Infrastructure Left US Inland Navigation at a Crossroads?

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

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

The severely degraded condition of many locks and dams sends a powerful signal to both current and would-be users - a signal that future availability is far from assured. This signal causes uncertainty. Uncertainty slows private investment in waterway terminal facilities and other assets. Shippers, who can, investigate their alternatives. n18 Those who have no alternative must decide whether to risk further waterway-related investment in the face of uncertain future access or simply make do with the facilities they already have in place. In this way, the failure to adequately invest in public infrastructure or even prolonged periods of indecision can induce the quiet collapse of system use. n19 Those who doubt the impact of user expectations on subsequent traffic volumes need only look to the Missouri River basin for a powerful example. n20 If national transportation policy includes commercial inland navigation going forward, then significant system investments must be planned and plans must be executed sooner rather than later.

It is similarly risky to reduce the system to its core components by ending support for tributary navigation. Obviously, it is impossible to make commercial navigation equally available in all quarters, but eliminating access at any location reduces the value of the overall system for remaining network users and should be done only after careful thought. This situation is analogous to telephone service. Your phone is valuable to you, because you can call (or be called by) a large number of other telephone subscribers. If some act suddenly ended all service to Cincinnati, your telephone would be less valuable to you even if you currently don't know a soul who lives or does business there. Tributary origins and destinations represent potential value for shippers on main-stem waterway segments even if their current shipping practices do not include them.

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

#### Business and agriculture uncertainty undermines U.S. competitiveness

Gibbs, 12 – Member, Representative for Ohio’s 18th Congressional District (4/18/2012, Bob Gibbs, “HOW RELIABILITY OF THE INLAND WATERWAY SYSTEM IMPACTS ECONOMIC COMPETITIVENESS”, <http://transportation.house.gov/news/PRArticle.aspx?NewsID=1609>)

Washington, DC – The Water Resources and Environment Subcommittee, chaired by U.S. Rep. Bob Gibbs (R-OH), held a hearing this morning on the importance of preserving the reliability of the Inland Waterways System. The Inland Waterways System provides a cost-effective and energy efficient alternative to truck and rail transportation and is also important to State and local economies and job creation efforts. One 15-barge tow on a river can carry as much cargo as 216 rail cars or 1,050 large trucks. However, the unreliability of the aging locks and dams on the System is making waterways a less attractive means of transportation, and moving cargo from waterways to rail or truck would produce significant national economic impacts. “Transportation savings are a key factor in economic growth,” said Chairman Gibbs. “As fuel prices continue to escalate, waterway transportation becomes an even more viable alternative for shippers. But, an unreliable transportation system will inject uncertainty into decisions made by U.S. farmers and manufacturers, making U.S. products uncompetitive in world markets. “Letting the inland waterway system decline further would be an economic disaster to add to the Nation’s already significant fiscal problems,” Gibbs continued. “Having an inland waterways system that is a viable alternative will keep costs down among all modes of transport. If you take inland waterways out of the mix in terms of transportation options, costs go up and American products become less competitive in the global marketplace. And that means lost jobs.” Mike Steenhoek, Executive Director, Soy Transportation Coalition, testified: “Unfortunately, while Brazil and other countries are aggressively investing in their infrastructure, we remain anemic in investing in ours. It can be accurately stated that the U.S. is more a spending nation, not an investing nation. A high percentage of taxpayer dollars are used to meet immediate wants and needs, rather than providing divideands to future generations.” Robert Dolence, Vice President, Leonardo Technologies Inc. (LTI), added: “It is also interesting to note, in other work by LTI, it has been forecasted that even with sustained low natural gas prices (maintaining less than $4/MMBTU natural gas cost levels for 50 plus years) coal maintains a significant role in electric power generation, industrial and commercial use, and exports with a total coal demand staying above the 1 billion tons per year level for the next 50 years. Based on the combined detailed modeling performed, LTI concludes the Ohio River Navigation System is a vital component to ensuring safe, reliable, low cost, domestic energy – including electricity – to our country.”

#### The lack of investment prevents an economic recovery

Davidson, 5/20 (Paul, 5/20/2012, “USA's creaking infrastructure holds back economy,” <http://www.usatoday.com/money/economy/story/2012-05-20/creaking-infrastructure/55096396/1>, JMP)

Inland waterways quietly keep the nation's economy flowing as they transport $180 billion of coal, steel, chemicals and other goods each year — a sixth of U.S. freight — across 38 states. Yet, an antiquated system of locks and dams threatens the timely delivery of those goods daily.

Locks and dams raise or lower barges from one water level to the next, but breakdowns are frequent. For example, the main chamber at a lock on the Ohio River near Warsaw, Ky., is being fixed. Maneuvering 15-barge tows into a much smaller backup chamber has increased the average delay at the lock from 40 minutes to 20 hours, including waiting time.

The outage, which began last July and is expected to end in August, will cost American Electric Power and its customers $5.5 million as the utility ferries coal and other supplies along the river for itself and other businesses, says AEP senior manager Marty Hettel.

As the economy picks up, the nation's creaking infrastructure will increasingly struggle to handle the load. That will make products more expensive as businesses pay more for shipping or maneuver around roadblocks, and it will cause the nation to lose exports to other countries — both of which are expected to hamper the recovery.

"The good news is, the economy is turning," says Dan Murray, vice president of the American Transportation Research Institute. "The bad news is, we expect congestion to skyrocket."

The ancient lock-and-dam system is perhaps the most egregious example of aging or congested transportation systems that are being outstripped by demand. Fourteen locks are expected to fail by 2020, costing the economy billions of dollars. Meanwhile, seaports can't accommodate larger container ships, slowing exports and imports. Highways are too narrow. Bridges are overtaxed.

Effects 'sneaking up'

The shortcomings were partly masked during the recession as fewer Americans worked and less freight was shipped, easing traffic on transportation corridors. But interviews with shippers and logistics companies show delays are starting to lengthen along with the moderately growing economy.

"I call this a stealth attack on our economy," says Janet Kavinoky, executive director of transportation and infrastructure for the U.S. Chamber of Commerce. "It's not like an immediate crisis. It's something that's sneaking up on us."

Freight bottlenecks and other congestion cost about $200 billion a year, or 1.6% of U.S. economic output, according to a report last year by Building America's Future Educational Fund, a bipartisan coalition of elected officials. The chamber of commerce estimates such costs are as high as $1 trillion annually, or 7% of the economy.

Yet, there's little prospect for more infrastructure investment as a divided Congress battles about how to cut the $1.3 trillion federal deficit, and state and local governments face their own budget shortfalls. Government investment in highways, bridges, water systems, schools and other projects has fallen each year since 2008. IHS Global Insight expects such outlays to drop 4.4% this year and 3% in 2013.

The U.S. is spending about half of the $2.2 trillion that it should over a five-year period to repair and expand overburdened infrastructure, says Andrew Herrmann, president of the American Society of Civil Engineers.

Inland waterways, for example, carry coal to power plants, iron ore to steel mills and grain to export terminals. But inadequate investment led to nearly 80,000 hours of lock outages in fiscal 2010, four times more than in fiscal 2000. Most of the nation's 200 or so locks are past their 50-year design life.

A prime example is an 83-year-old lock on the Ohio River near Olmsted, Ill. Congress set aside $775 million to replace it and another nearby lock in 1988. The project began in 1993 and was scheduled to be finished by 2000 but still isn't complete, in part because of engineering modifications intended to save $60 million. Now, the cost has ballooned to $3.1 billion, and the new lock won't be ready until 2020 or later.

The cost overrun leaves little money for other projects. About $8 billion is needed to replace 25 locks and dams in the next 20 years, says Michael Toohey, president of the Waterways Council, an advocacy group.

But Congress allocates only about $170 million a year, with the government and a 20-cent-a-gallon tax on tow operators each funding half. Toohey says $385 million a year is required to fund all the work. "We're the silent industry" because waterways are less visible, he says.

#### Also failures independently drive up electricity costs that will ripple through the economy

Boselovic, 12 (3/18/2012, Len, “Locked and Dammed: The region's 23 locks and dams are on the brink of failure,” <http://www.post-gazette.com/stories/news/environment/locked-and-dammed-the-regions-23-locks-and-dams-are-on-the-brink-of-failure-517289/?print=1>, JMP)

**\*\*\*William Harder is the former navigation manager in the Corps' Great Lakes and Ohio River division**

Corps and industry officials say it would take three or more years to replace a failed lock and even longer if a dam had to be replaced.

Whatever the period of time needed, the 10 million tons of coal and other commodities that move through the Elizabeth locks each year would have to be moved by rail or truck, which are more expensive. Moreover, it would take more than 1,000 large trucks to move the same amount of coal a standard 15-barge tow carries.

"If the Lower Mon closes, there's not enough trucks to move the coal power plants need," Mr. Harder said.

A Corps-commissioned study produced in October estimated a lock or dam failure that closed the Lower Mon to traffic could increase electricity costs up to $1 billion annually. The figure covers only what businesses and consumers could pay and not how those price increases would ripple through the economy.

But Mr. Harder, who disclosed the $1 billion estimate at an industry meeting in Pittsburgh in October, said costs would include power plants paying more to move coal by truck or rail. He said an extended closure could cause some power plants to shut down, increasing the cost of electricity for about 21 million people along the East Coast.

Dams also make it possible for electric generation plants, other industry and municipal water companies to draw enough water from the river to supply their operations. Residents and industries who rely on the Monongahela for water might have problems if the level drops below the intake valves used to draw water out of the river.

"If we would lose those dams, we would have a lot of towns in trouble," said Jeanine Hoey of the Corps' Pittsburgh district.

Water companies say they would be able to provide water, even if a dam were out of commission for three or more years. But it might be more expensive.

"It wouldn't be easy. There certainly would be a lot of challenges," said Joe Dinkel, executive director of operations for West View Water Authority, which draws water out of the Ohio River to serve more than 200,000 consumers in the North Hills and Ohio River communities.

Pennsylvania America Water, which has 220,000 customers in the region, is discussing what the loss of a dam would mean with the U.S. Department of Homeland Security, spokesman Gary Lobaugh said.

#### **Economic decline undercuts interdependence and triggers nuclear conflict**

Kemp ’10 [Geoffrey Kemp, Director of Regional Strategic Programs at The Nixon Center, served in the White House under Ronald Reagan, special assistant to the president for national security affairs and senior director for Near East and South Asian affairs on the National Security Council Staff, Former Director, Middle East Arms Control Project at the Carnegie Endowment for International Peace, 2010, The East Moves West: India, China, and Asia’s Growing Presence in the Middle East, p. 233-4]

The second scenario, called Mayhem and Chaos, is the opposite of the first scenario; everything that can go wrong does go wrong. The world economic situation weakens rather than strengthens, and India, China, and Japan suffer a major reduction in their growth rates, further weakening the global economy. As a result, energy demand falls and the price of fossil fuels plummets, leading to a financial crisis for the energy-producing states, which are forced to cut back dramatically on expansion programs and social welfare. That in turn leads to political unrest: and nurtures different radical groups, including, but not limited to, Islamic extremists. The internal stability of some countries is challenged, and there are more “failed states.” Most serious is the collapse of the democratic government in Pakistan and its takeover by Muslim extremists, who then take possession of a large number of nuclear weapons. The danger of war between India and Pakistan increases significantly. Iran, always worried about an extremist Pakistan, expands and weaponizes its nuclear program. That further enhances nuclear proliferation in the Middle East, with Saudi Arabia, Turkey, and Egypt joining Israel and Iran as nuclear states. Under these circumstances, the potential for nuclear terrorism increases, and the possibility of a nuclear terrorist attack in either the Western world or in the oil-producing states may lead to a further devastating collapse of the world economic market, with a tsunami-like impact on stability. In this scenario, major disruptions can be expected, with dire consequences for two-thirds of the planet’s population

#### The impact is global nuclear war

Freidberg & Schonfeld, 8 --- \*Professor of Politics and IR at Princeton’s Woodrow Wilson School, AND \*\*senior editor of Commentary and a visiting scholar at the Witherspoon Institute in Princeton (10/21/2008, Aaron and Gabriel, “The Dangers of a Diminished America”, Wall Street Journal, http://online.wsj.com/article/SB122455074012352571.html?mod=googlenews\_wsj)

With the global financial system in serious trouble, is America's geostrategic dominance likely to diminish? If so, what would that mean?

One immediate implication of the crisis that began on Wall Street and spread across the world is that the primary instruments of U.S. foreign policy will be crimped. The next president will face an entirely new and adverse fiscal position. Estimates of this year's federal budget deficit already show that it has jumped $237 billion from last year, to $407 billion. With families and businesses hurting, there will be calls for various and expensive domestic relief programs.

In the face of this onrushing river of red ink, both Barack Obama and John McCain have been reluctant to lay out what portions of their programmatic wish list they might defer or delete. Only Joe Biden has suggested a possible reduction -- foreign aid. This would be one of the few popular cuts, but in budgetary terms it is a mere grain of sand. Still, Sen. Biden's comment hints at where we may be headed: toward a major reduction in America's world role, and perhaps even a new era of financially-induced isolationism.

Pressures to cut defense spending, and to dodge the cost of waging two wars, already intense before this crisis, are likely to mount. Despite the success of the surge, the war in Iraq remains deeply unpopular. Precipitous withdrawal -- attractive to a sizable swath of the electorate before the financial implosion -- might well become even more popular with annual war bills running in the hundreds of billions.

Protectionist sentiments are sure to grow stronger as jobs disappear in the coming slowdown. Even before our current woes, calls to save jobs by restricting imports had begun to gather support among many Democrats and some Republicans. In a prolonged recession, gale-force winds of protectionism will blow.

Then there are the dolorous consequences of a potential collapse of the world's financial architecture. For decades now, Americans have enjoyed the advantages of being at the center of that system. The worldwide use of the dollar, and the stability of our economy, among other things, made it easier for us to run huge budget deficits, as we counted on foreigners to pick up the tab by buying dollar-denominated assets as a safe haven. Will this be possible in the future?

Meanwhile, traditional foreign-policy challenges are multiplying. The threat from al Qaeda and Islamic terrorist affiliates has not been extinguished. Iran and North Korea are continuing on their bellicose paths, while Pakistan and Afghanistan are progressing smartly down the road to chaos. Russia's new militancy and China's seemingly relentless rise also give cause for concern.

If America now tries to pull back from the world stage, it will leave a dangerous power vacuum. The stabilizing effects of our presence in Asia, our continuing commitment to Europe, and our position as defender of last resort for Middle East energy sources and supply lines could all be placed at risk.

In such a scenario there are shades of the 1930s, when global trade and finance ground nearly to a halt, the peaceful democracies failed to cooperate, and aggressive powers led by the remorseless fanatics who rose up on the crest of economic disaster exploited their divisions. Today we run the risk that rogue states may choose to become ever more reckless with their nuclear toys, just at our moment of maximum vulnerability.

The aftershocks of the financial crisis will almost certainly rock our principal strategic competitors even harder than they will rock us. The dramatic free fall of the Russian stock market has demonstrated the fragility of a state whose economic performance hinges on high oil prices, now driven down by the global slowdown. China is perhaps even more fragile, its economic growth depending heavily on foreign investment and access to foreign markets. Both will now be constricted, inflicting economic pain and perhaps even sparking unrest in a country where political legitimacy rests on progress in the long march to prosperity.

None of this is good news if the authoritarian leaders of these countries seek to divert attention from internal travails with external adventures.

As for our democratic friends, the present crisis comes when many European nations are struggling to deal with decades of anemic growth, sclerotic governance and an impending demographic crisis. Despite its past dynamism, Japan faces similar challenges. India is still in the early stages of its emergence as a world economic and geopolitical power.

What does this all mean? There is no substitute for America on the world stage. The choice we have before us is between the potentially disastrous effects of disengagement and the stiff price tag of continued American leadership.

### 1ac Agriculture Advantage

#### Contention \_\_\_\_\_ is Agriculture

#### Inland waterway transportation is a key to U.S. agriculture competitiveness

Steenhoek, 12 – Executive Director, Soy Transportation Coalition (4/18/2012, Mike Steenhoek, “HOW RELIABILITY OF THE INLAND WATERWAY SYSTEM IMPACTS ECONOMIC COMPETITIVENESS,” <http://transportation.house.gov/news/PRArticle.aspx?NewsID=1609>)

House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "How Reliability of the Inland Waterway System Impacts Economic Competitiveness." 2242 words 18 April 2012 Congressional Documents and Publications CONGDP English (c) 2012 Federal Information & News Dispatch, Inc. Testimony by Mike Steenhoek, Executive Director, Soy Transportation Coalition - April 18, 2012 Chairman Gibbs and Members of the Subcommittee: My name is Mike Steenhoek, Executive Director of the Soy Transportation Coalition (STC). Established in 2007, the Soy Transportation Coalition is comprised of eleven state soybean boards, the American Soybean Association, and the United Soybean Board. The goal of the organization is to position the soybean industry to benefit from a transportation system that delivers cost effective, reliable, and competitive service. The STC is governed by a board of directors of soybean farmers from the sponsoring entities. We are therefore a farmer-funded and farmer-led organization. Over the past few years, much of U.S. agriculture, in general, and the soybean industry, in particular, has been a silver lining in an overall cloudy economy. American farmers are increasingly productive in growing quality, abundant food. Customers, both domestic and, increasingly, overseas, are demanding this production. For the soybean industry, over half of what American farmers produce is destined to the international marketplace - one quarter of total production will be delivered to China alone. Not only do these transactions enhance the U.S. economy - particularly in rural America - it also serves the higher purpose of feeding millions of people who, for the first time in their family's history, are able to incorporate more protein into their diets. This pastoral, traditional industry has truly become one of the world's most dynamic and compelling. One of the primary reasons U.S. agriculture is so viable and competitive is our expansive and efficient transportation network of roads, bridges, railroads, inland waterways, and ports. Figure 1 below provides an efficient snapshot of the role of transportation - particularly inland waterways-in ensuring the competitiveness of the U.S. soybean industry. The chart provides a cost comparison of producing and delivering a metric ton of soybeans from both the U.S. and Brazil - our primary competitor - to a customer in Shanghai. Both of the origination points - Davenport, Iowa, and North Mato Grosso, Brazil - are approximately 950 miles from their respective port regions. While the movement from North Mato Grosso to the port relies on trucking, the movement from Davenport to the export terminals in Southern Louisiana enjoys the efficiency America's inland waterway system provides. As the chart validates, the main reason the U.S. soybean industry and many other agricultural products are the most economical choice for our customers on the international marketplace is due to our superior transportation system. Other countries can produce quality products at a lower price. However, it has been and continues to be our ability to deliver those products to our customers in a cost-effective manner that allows our industry to be so competitive. Transportation - particularly the inland waterway system - is not simply a contributing factor of agriculture's success, it is a predominant one. Figure 1: Costs of transporting soybeans: U.S. vs. Brazil (per metric ton; 4th quarter, 2011) Davenport, Iowa to Shanghai North Mato Grosso, Brazil to Shanghai Truck-$10.22 Truck-$115.05 Barge-$28.91 Ocean - $55.33 Ocean-$49.65 Total Transportation - $94.46 Total Transportation - $164.70 Farm Value - $425.00 Farm Value - $358.24 Cost to Customer - $519.46 Cost to Customer - $522.94 Transportation as % of Customer Cost 18.18% Transportation as % of Customer Cost - 31.50% Source: USDA Unfortunately, while Brazil and other countries are aggressively investing in their infrastructure, we remain anemic in investing in ours. It can be accurately stated that the U.S. is more a spending nation, not an investing nation. A high percentage of taxpayer dollars are used to meet immediate wants and needs, rather than providing dividends to future generations. According to our recent analysis funded by the soybean check off, the Upper Mississippi, Ohio, and Illinois Rivers accommodated the following volumes of grain and oilseeds in 2010: \* Upper Mississippi River: 236 million tons \* Ohio River: 49 million tons \* Illinois River: 24 million tons The U.S. Department of Agriculture reports that 58 percent of U.S. soybean exports in 2011 departed from the Mississippi Gulf port region. Approximately 90 percent of that volume arrived at the port region via barge. The widely advertised expansion of the Panama Canal has the potential to increase the commercial viability of the U.S. inland waterway system - provided that we make prudent investments in our ports and lock and dam inventory. According to our recent soybean check off-funded research, the greater efficiencies of maritime transportation resulting from the expanded Panama Canal will have a positive ripple effect on those who utilize the inland waterway system. Our research predicts that grain and oilseeds transiting the Panama Canal will increase 30 percent by 2020/2021. After the canal expansion in 2014, ocean vessels will be able to accommodate up to 13,300 additional metric tons of soybeans (approximately 500,000 bushels) per voyage, which amounts to an additional $6 million in cargo value. Customers will realize up to a 35 cent per bushel savings due to this greater efficiency of maritime transportation. Figure 2 below highlights how sizable areas of the country will experience greater access to the efficiencies of barge transportation subsequent to the Panama Canal expansion. According to the soybean check off-funded research, the draw area to our major navigable waterways could expand from 70 miles to 161 miles. As a result, there will be increased areas of the country that will be able to avail themselves of the safe, environmentally friendly, and economically competitive inland waterway system. From a shipper perspective, this will most likely have a favorable impact on area rail rates since there is wide evidence that transportation costs go down - and economic competitiveness goes up - when there is more than one shipping option in a particular region. However, these potential efficiency gains from the Panama Canal expansion will only occur if the U.S. sufficiently invests in our links in the logistics chain that connects with the Panama Canal. If we fail to do so, we will simply shift the bottleneck from Panama to the United States. Figure 2: Increased draw area for inland waterways transportation following the Panama Canal expansion Source: "Panama Canal Expansion: Impact on U.S. Agriculture." Funded by the soybean check off The soybean check off recently completed a study, "America's Locks and Dams: A Ticking Time Bomb for Agriculture?". The research, conducted by the Texas Transportation Institute at Texas A&M University, projected the impact of potential lock and dam failures on the competitiveness of our industry. Unfortunately, there is an established and growing consensus that such failures are not a matter of if they occur, they are a matter of when. Figure 3 highlights the cost to U.S. agricultural producers of various lock closures of various durations along the inland waterway system. American farmers are demonstrating the ability to increase supply and customers are expressing a growing appetite for this production. However, the below figure illustrates that failing to connect supply and demand can have a pernicious impact on our economic competitiveness. Figure 3: Cost to Agricultural Producers of Lock Closures ($ millions): Lock 2 Weeks 1 Month 3 Months 1 Year LaG range $2.7 $4.8 $21.2 $30.4 Lock 20 $2.8 $4.9 $15.4 $44 Lock 25 $2.8 $4.9 $15.4 $44.1 Markland $0.89 $1.02 $3.8 $4.9 Lock 52 $2.9 $3.1 $11.9 $13.9 Source; "America's Locks and Dams: A Ticking Time Bomb for Agriculture?" Funded by the soybean check off One of the primary deliverables of this analysis was to evaluate the impact of these likely lock failures on a local level, rather than simply the national level. Both our elected leaders and constituent groups repeatedly demonstrate how issues have more resonance when understanding the local impact rather than the aggregate impact. The micro argument is more persuasive than the macro argument. The analysis documents how many Congressional districts in this nation have negative exposure to a potential lock and dam failure. America's economic competitiveness is not simply impacted by our increasingly unreliable inland waterway system, the economic health of our local communities will be impacted as well. Our dilapidated lock and dam inventory is increasingly plagued by unscheduled maintenance and mechanical breakdowns. According to the Army Corps of Engineers, navigation outages on the Ohio River alone have increased more than three-fold since 2000, increasing from 25,000 hours to 80,000 hours. This unfortunately results in discouraging further investment by those who utilize the inland waterway system toward modernization of river terminals, towing equipment, or barge fleets. Our nation has the lofty and laudable goal of doubling exports by 2015. However, our nation - by not sufficiently maintaining our lock and dam inventory - is perpetuating a major impediment to this worthwhile goal being ultimately achieved. Compounding the frustration due to having to depend on an increasingly unreliable inland waterway system is widespread discouragement due to our inability as a nation to adequately address this challenge. Those who utilize our inland waterway system have long recognized and articulated the alarming condition of our locks and dams. Unfortunately, this recognition and communication have not been met with tangible solutions. The Soy Transportation Coalition and many others who are gravely concerned with the condition of our inland waterway system are concluding that there is a need for fresh thinking to be incorporated into this important issue. Abiding by the same strategy will most assuredly yield the same results. We have continued working with the Texas Transportation Institute to examine some alternative approaches to managing our lock and dam system. The results of this additional analysis will be completed over the next month. It is our hope that we can complement the work of other advocates of the inland waterway system in determining solutions to this protracted problem.

#### This is key to double U.S. exports over the next five years --- especially for coal and grain

Boselovic, 12 (3/18/2012, Len, “Locked and Dammed: The region's 23 locks and dams are on the brink of failure,” <http://www.post-gazette.com/stories/news/environment/locked-and-dammed-the-regions-23-locks-and-dams-are-on-the-brink-of-failure-517289/?print=1>, JMP)

**\*\*\*Martin T. Hettel is the American Electric Power manager responsible for moving coal on AEP barges to the Columbus, Ohio, utility's power plants**

Industry officials say more reliable locks and dams could boost U.S. exports, a critical element of President Barack Obama's economic recovery plan.

They point to an expansion of the Panama Canal that will allow more and bigger ships to pass through the canal, which links the Caribbean Sea with the Pacific Ocean. The Panama project could benefit American coal and grain producers eyeing booming markets in Asia if they can efficiently ship products down the Ohio and Mississippi rivers to New Orleans for export.

"How can we double exports in five years if our transportation system can't support that?" Mr. Hettel asks.

The Waterways Council, an industry group representing carriers and shippers, estimates the Panama Canal expansion is the equivalent of six Olmsteds, the Corps' $3.1 billion project on the Ohio River plagued by cost overruns and construction delays.

Mr. Steenhoek, of the Soy Transportation Coalition, notes that unlike Olmsted, the canal project -- run by the Panamanian government that took control of the canal from the United States at the end of 1999 -- is on budget and is expected to be completed on time in 2014.

"The country that built the Panama Canal has a lot to learn from the country that is operating the Panama Canal," he said.

#### Exports are critical to the economy

USTR, 09 (11/13/2009, Office of the united states trade representative, “Increasing U.S. Exports, Creating American Jobs: Engagement with the Trans-Pacific Partnership,” 11/13/2009 <http://www.ustr.gov/about-us/press-office/blog/2009/november/increasing-us-exports-creating-american-jobs-engagement-tra>)

The Trans-Pacific Partnership

The Trans-Pacific Partnership is a potential platform for economic integration across the Asia Pacific region. The United States will engage with an initial group of seven like-minded countries, Singapore, Chile, New Zealand, Brunei, Australia, Peru, and Vietnam, to craft a platform for a high-standard, comprehensive agreement - one that reflects U.S. priorities and values - with these and additional Asia-Pacific partners.

American Opportunity in the Asia-Pacific

Over the past four and a half years (1st quarter 2005 to 3rd quarter 2009), trade has remained an important part of the U.S. economy. American goods and services exports to the world accounted for 40 percent of real GDP growth in the United States. The Asia Pacific's robust economies offer huge opportunities to grow U.S. exports, thereby creating and retaining high-quality, high-paying jobs in the United States.

According to the East-West Center, Asia already accounts for 27 percent of total U.S. jobs from exports and employment from exports to Asia grew 12 percent from 2002 to 2006. The International Monetary Fund forecasts that the Asia-Pacific economies will grow faster than the world average through at least 2014. Expanding U.S. exports to the Asia-Pacific region can contribute significantly to further job growth and economic recovery for America's working families.

#### Agriculture trade specifically is critical to the overall U.S. economy

Edmondson, 8 – USDA Economist (William, “U.S. Agricultural Trade Boosts Overall Economy,” April 2008, http://72.14.205.104/search?q=cache:cKyRuUhC2bgJ:www.ers.usda.gov/Publications/FAU/2008/04Apr/FAU124/FAU124.pdf+%2211,800+American+jobs+(see+box,+%E2%80%9CData+sources,%E2%80%9D+p.+6).%22&hl=en&ct=clnk&cd=1&gl=us.com)

As the world becomes more integrated, global trade and the economic links between countries grow ever stronger. U.S. agricultural trade is a significant contributor to the overall U.S. economy and to the rest of the world’s economies. The United States continues to be a net exporter of agricultural products, the surplus helping to offset some of the U.S. nonfarm trade deficit. Trade agreements have expanded agricultural trade and, in turn, have opened the U.S. market to exporting opportunities for both developed and developing countries. Such trade benefits developing countries that in the past have had little market access. Agricultural exports by the United States are now enjoying a resurgence due to rising food demand in emerging markets, reduced competition in feed-grain markets, and a weakened dollar. At the same time the value of agricultural imports is rising, averaging 10-percent growth per year since 2001.

The U.S. farm and rural economies have always been affected by international and domestic macroeconomic trade influences. From early colonial days, when tobacco and cotton were the most important export commodities, to today’s grain, oilseed, and processed foods, agricultural trade has been an important part of the U.S. economic engine. The North American Free Trade Agreement (NAFTA) and other bilateral and multilateral trade agreements lowered trade barriers and created additional consumer demand for U.S. agricultural commodities in foreign nations. In turn, that demand is satisfied with purchasing power acquired when their products are sold in the United States and elsewhere. The weakening U.S. dollar, which has now fallen to a 30-year low compared with the world’s other major currencies, makes the price of U.S. goods increasingly competitive abroad. Canada and Mexico are the leading U.S. trading partners—together, those nations buy over 35 percent of U.S. exports. Meanwhile, U.S. imports of agricultural goods have not slowed despite the weakened buying power of the U.S. dollar. U.S. consumers continue to demand a large variety of imported goods and are willing to pay a premium for them. Agricultural trade is most importantly a generator of output, employment, and income in the U.S. economy. For every dollar spent on exports in 2006, another $1.65 was created in the economy to support the exporting activity (see table 1, p. 15). ERS model results show that every $1 billion of agricultural exports in 2006 requires 11,800 American jobs (see box, “Data Sources,” p. 6).

#### Agricultural productivity also key to feed billions in the growing population

Stulp, 9 – agriculture commissioner in Colorado (John, “America’s economy needs farmers,” Journal-Advocate, 3/20/2009, http://www.journal-advocate.com/news/2009/mar/20/americas-economy-needs-farmers/, JMP)

This week we commemorate American agriculture and the benefits it brings to our society, our economy and our environment. But most of all, we celebrate the productivity of our nations farmers and ranchers. Gov. Ritter has declared today, March 20, as Agriculture Day in Colorado.

While farmers and ranchers constitute less than 2 percent of our population, they feed our entire country and a good number of consumers overseas. The productivity of our agricultural industry is astounding, and scientists continue to explore new frontiers of crop and livestock technology, which will bring even greater productivity to feed a growing world population.

Agricultural productivity is more important in today’s economy than ever. Americans spend only about 9 percent of their income on food. That compares nicely to 11 percent in the U.K. and 17 percent in Japan. Food is a bargain in America, freeing more of a consumer’s paycheck to pay for other necessities, and maybe even a splurge once in a while.

A farmer receives only a small portion of every food dollar. For instance, a pound of boneless ham might sell for around $4.50, and the farmer’s share of that is less than 70 cents. A bag of potato chips costs about $3, but the farmer gets only six cents of it. A $2.50 loaf of bread contains only eight cents worth of wheat—about the same value as the plastic wrap it comes in.

United States agriculture will have to become even more productive as the world’s population increases. Demographers expect the world’s population to grow to nearly 10 billion people by the year 2050. That population will need ten billion tons of food to survive — twice as much agricultural production as farmers currently provide.

Where will all that food come from? Dr. Norman Borlaug, the Nobel Peace Prize winner who is credited with saving a billion lives by creating the “Green Revolution” through agricultural research, believes farmers could produce that much food today. Borlaug believes that research in agricultural technology is the key to keeping food production in line with population growth.

We are fortunate as Americans to have farmers and ranchers that work their fields and care for their livestock on a daily basis to allow us consumers to have access to the safest, most economical, and the most dependable source of food, fiber and fuels in the world.

Even in difficult economic times, America’s agricultural producers continue to undergird the economy with products that touch every American every day.

This Ag Day, there is much to celebrate.

#### Also, collapsing infrastructure injects uncertainty that crushes U.S. soybean competitiveness globally

Alexander, 12 (4/25/12, Tim, “STC calls on Congress for reliable waterways funding,” http://www.farmworldonline.com/news/NewsArticle.asp?newsid=14505)

Transportation, including the nation’s inland waterways system, “is not just a contributing factor to the economic competitiveness of agriculture, in general; and (for) the soybean industry, in particular, it is a predominant one,” according to Mike Steenhoek, executive director of the Soy Transportation Coalition (STC).

The STC counts 11 state soybean associations as members, along with the American Soybean Assoc. and the United Soybean Board. Steenhoek made his comments at the invitation of U.S. Rep. Bob Gibbs (R-Ohio), chair of the House Transportation and Infrastructure Subcommittee on Water Resources and Environment, during an April 18 hearing.

The hearing was on the importance of preserving the reliability of the nation’s inland waterways system. “Our overall dilapidated lock and dam system – exhibited by unscheduled maintenance, mechanical breakdowns and a threat of failure – sends a terrible signal to those who utilize the system,” Steenhoek told the subcommittee.

“How can we expect grain handlers and other freight interests to invest millions of dollars on new or upgraded facilities, when we cannot provide certainty that their shipments will be delivered to customers in an efficient manner?”

Gibbs acknowledged the inland waterways system provides a cost-effective and energy-efficient alternative to truck and rail transportation, a key factor in economic growth.

“As fuel prices continue to escalate, waterway transportation becomes an even more viable alternative for shippers. But, an unreliable transportation system will inject uncertainty into decisions made by U.S. farmers and manufacturers, making U.S. products uncompetitive in world markets,” Gibbs stated.

“Letting the inland waterways system decline further would be an economic disaster to add to the nation’s already significant fiscal problems. Having an inland waterways system that is a viable alternative will keep costs down among all modes of transport.”

Steenhoek informed the subcommittee that as Brazil continues to invest in its transportation infrastructure while the United States remains “anemic” in developing its system, our competitive advantage over Brazil continues to erode.

“It can be accurately stated that the U.S. is more a spending nation, not an investing nation,” he testified. “A high percentage of taxpayer dollars are used to meet immediate wants and needs, rather than providing dividends to future generations.”

He was alluding, in part, to the current expansion of the Panama Canal and how it will represent a “missed opportunity” for U.S. expansion of maritime commerce if we do not make the necessary investments into inland waterways. Steenhoek urged legislators to more carefully allocate funds for lock and dam improvements, adding, “A predictably good inland waterway system is better than a hypothetically great one.

“It is discouraging to observe how many other countries are able to construct their major infrastructure projects much more efficiently than we can,” said Steenhoek. “The Panama Canal expansion project is a great example. This $5.25 billion project commenced in 2007 and is scheduled to be completed in late 2014 or early 2015.

“The expansion project is more imposing and complex than any project we have under way or planned in our inland waterway system, though all indications are that the project will be completed within budget and only a handful of months behind schedule.

“Compare this to our Olmsted Lock and Dam project that had an original cost estimate of $775 million, and has recently been updated to over $3 billion with a significant time horizon remaining before it will be completed,” he said. “When examining the various reasons for our repeated cost overruns and project delays, it quickly becomes evident that a major contributing factor is the piecemeal and unpredictable manner in which we finance these projects.”

Also testifying at the hearing was Major Gen. John Peabody of the U.S. Army Corps of Engineers’ Mississippi River Valley Division, who issued a dire warning to lawmakers about the possible consequences of delaying crucial infrastructure work on the Mississippi, Ohio and Illinois rivers, among other waterways.

“Catastrophic failure of a lock or dam at a high-volume point along one of the major waterways would have significant economic consequences, because other transportation modes generally lack the capacity to either quickly or fully accommodate the large volume of cargo moved on the inland waterways,” Peabody said.

“Therefore, cost and congestion of other modes – mostly rail – could be greatly affected and some cargoes may be delayed for extended periods. For example, the Corps extended a planned 18-day closure at Greenup locks in 2006 when extensive deterioration of the miter gates was discovered. This lengthy, unplanned delay cost shippers over $40 million and several utilities came within days of having to shut down due to exhausted supplies of coal.”

Gibbs agreed, noting that one 15-barge tow on a river can carry as much cargo as 216 railcars or 1,050 large trucks. He also stated concern about employment.

“If you take inland waterways out of the mix in terms of transportation options, costs go up and American products become less competitive in the global marketplace,” he said. “And that means lost jobs.”

#### The competitiveness of U.S. soybeans is necessary to prevent Brazil from dominating the market

Agrimoney, 11 (11/11/11, agrimoney.com, “US soy exports have 'narrow window' for recovery,” http://www.agrimoney.com/news/us-soy-exports-have-narrow-window-for-recovery--3836.html)

US soybean exporters have only a "narrow window" when they will have the run of the world market before rival Brazilian supplies reappear, Washington officials said, dampening hopes of a rebound in trade gathering momentum.

The US Department of Agriculture said there was scope for the pace of US export sales of soybeans to improve, after a 36% slump in the first two months of 2011-12.

But an uptick was unlikely "without more competitive prices" which, even after a fall of more than $1 a bushel below $12 a bushel in US cash markets last month, were struggling to regain market share from Brazil.

Indeed, Brazil's "more competitive" exports, having been sustained far further into the year than normal by a strong 2010-11 harvest, looked set for a rapid comeback given an emphasis on faster-growing varieties in the ongoing planting season.

By enabling an earlier harvest, these varieties improve prospects for Brazilian farmers to gain strong yields of follow-on crops of corn, whose high prices are signalling to growers "to expand corn area wherever possible".

'Rapid return'

"With a better chance for additional early new-crop harvesting in January, Brazil's soybean trade could be quickly put back on a higher path," USDA officials said.

"That implies a potentially narrow window for a revival in US exports."

The comments follow a forecast from Oil World, the influential analysis group, that "world demand for US soybeans will recover in November and continue to rise in December and January, when most of the South American soybean stocks will have been disposed of and South American exports are seasonally small".

#### U.S. exports are good --- they tradeoff with soybean production in South America

Reuters, 12 (Mark Weinraub, Reuters correspondent for grain markets, previously a reporter on the equities desk in New York, and a news assistant in the Washington Bureau, “US soybeans jump to near 4-year peak”, April 24, 2012, http://articles.chicagotribune.com/2012-04-24/news/sns-rt-markets-grainsupdate-5l3e8fo7i5-20120424\_1\_corn-and-soybean-cbot-wheat-soybean-crop)

U.S. soybeans rallied 1.7 percent to their highest in nearly four years on Tuesday due to strong export demand for U.S. supplies and to renewed concerns about the crop in South America, traders said. "The strong demand base for soybeans ... is leading the charge higher," said Brian Hoops, analyst for Midwest Market Solutions. Soybeans hit their highest since July 2008 after Oil World lowered its forecast of Argentina's 2011/12 soybean crop to 42.5 million from 44 million because of drought damage. Traders said there was talk of other forecasters lowering their estimate of South American production. The shrinking crop from South America renewed concerns of tightening old-crop supplies as overseas buyers look to the United States to fill their import needs. Top buyer China has bought U.S. soybeans in the past week, a time when South America bears the brunt of the export load.

#### That triggers deforestation of the Amazon rainforest which is key for biodiversity and stopping climate change

Brown, 9 --- President of the Earth Policy Institute (Lester R. Brown, the recipient of many prizes and awards, including 25 honorary degrees, a MacArthur Fellowship, the 1987 United Nations' Environment Prize, the 1989 World Wide Fund for Nature Gold Medal, and the 1994 Blue Planet Prize for his "exceptional contributions to solving global environmental problems." In 2012, he was inducted into the Earth Hall of Fame Kyoto, “Growing Demand for Soybeans Threatens Amazon Rainforest”, December 30, 2009, http://www.earth-policy.org/plan\_b\_updates/2009/update86)

The Amazon rainforest sustains one of the richest concentrations of plant and animal biological diversity in the world. It also recycles rainfall from the coastal regions to the continental interior, ensuring an adequate water supply for Brazil’s inland agriculture. And it is an enormous storehouse of carbon. Each of these three contributions is obviously of great importance. But it is the release of carbon, as deforestation progresses, that most directly affects the entire world. Continuing destruction of the Brazilian rainforest will release massive quantities of carbon into the atmosphere, helping to drive climate change. Brazil has discussed reducing deforestation 80 percent by 2020 as part of its contribution to lowering global carbon emissions. Unfortunately, if soybean consumption continues to climb, the economic pressures to clear more land could make this difficult. Although the deforestation is occurring within Brazil, it is the worldwide growth in demand for meat, milk, and eggs that is driving it. Put simply, saving the Amazon rainforest now depends on curbing the growth in demand for soybeans by stabilizing population worldwide as soon as possible.

#### Warming magnifies every impact and causes extinction

**Burke 8** (Sharon, sr fellow and dir of the energy security project at the Center for a New American Security, Chapter 6 of Climatic Cataclysm: The Foreign Policy and National Security Implications of Climate Change, edited by Kurt Campbell, p 157-165)

At the same time, however, the implications of both trends for human society and survival raise the stakes; it is crucial to try to understand what the future might look like in one hundred years in order to act accordingly today. This scenario, therefore, builds a picture of the plausible effects of catastrophic climate change, and the implications for national security, on the basis of what we know about the past and the present. The purpose is not to "one up" the previous scenarios in awfulness, but rather to attempt to imagine the unimaginable future that is, after all, entirely plausible. Assumed Climate Effects of the Catastrophic Scenario. In the catastrophic scenario, the year 2040 marks an important tipping point. Large-scale, singular events of abrupt climate change will start occurring, greatly exacerbated by the collapse of the Atlantic meridional overturning circulation (MOC), which is believed to play and important role in regulating global climate, particularly in Europe.8 There will be a rapid loss of polar ice, a sudden rise in sea levels, totaling 2 meters (6.6 feet), and a temperature increase of almost 5.6°C (10.1°F) by 2095. Developing countries, particularly those at low latitudes and those reliant on subsistence, rain-fed farming, will be hardest and earliest hit. All nations, however, will find it difficult to deal with the unpredictable, abrupt, and severe nature of climate change after 2040. These changes will be difficult to anticipate, and equally difficult to mitigate or recover from, particularly as they will recur, possibly on a frequent basis. First, the rise in temperatures alone will present a fundamental challenge for human health. Indeed, even now, about 250 people die of heatstroke every year in the United States. In a prolonged heat wave in 1980, more than 10,000 people died of heat-related illnesses, and between 5,000 and 10,00 in 1988.9 In 2003, record heat waves in Europe, with temperatures in Paris hitting 40.4°C (104.7°F) and 47.3°C (116.3°F) in parts of Portugal, are estimated to have cost more than 37,000 lives; in the same summer there were at least 2,000 heat-related deaths in India. Average temperatures will increase in most regions, and the western United States, southern Europe, and southern Australia will be particularly vulnerable to prolonged heat spells. The rise in temperatures will complicated daily life around the world. In Washington, D.C., the average summer temperature is in the low 30s C (high 80s F), getting as high as 40°C (104°F). With a 5.6°C (10.1°F) increase, that could mean temperatures as high as 45.6°C (114.5°F). In New Delhi, summer temperatures can reach 45°C (113°F) already, opening the possibility of new highs approaching sO.sOC (123°F). In general, the level of safe exposure is considered to be about 38°C (lOO°F); at hotter temperatures, activity has to be limited and the very old and the very young are especially vulnerable to heat-related ill­ness and mortality. Sudden shifts in temperature, which are expected in this scenario, are particularly lethal. As a result of higher temperatures and lower, unpredictable precipitation, severe and persistent wildfires will become more common, freshwater will be more scarce, and agricultural productivity will fall, particularly in Southern Europe and the Mediterranean, and the western United States. The World Health Organization estimates that water scarcity already affects two- fifths of the world population-s-some 2.6 billion people. In this scenario, half the world population will experience persistent water scarcity. Regions that depend on annual snowfall and glaciers for water lose their supply; hardest hit will be Central Asia, the Andes, Europe, and western North America. Some regions may become uninhabitable due to lack of water: the Mediter­ranean, much of Central Asia, northern Mexico, and South America. The southwestern United States will lose its current sources of fresh water, but that may be mitigated by an increase in precipitation due to the MOC col­lapse, though precipitation patterns may be irregular. Regional water scarcity will also be mitigated by increases in precipitation in East Africa and East and Southeast Asia, though the risk of floods will increase. The lack of rainfall will also threaten tropical forests and their dependent species with extinction. Declining agricultural productivity will be an acute challenge. The heat, together with shifting and unpredictable precipitation patterns and melting glaciers, will dry out many areas, including today's grain-exporting regions. The largest decreases in precipitation will be in North Africa, the Middle East, Cen tral America, the Caribbean, and northeastern South America, including Amazonia. The World Food Program estimates that nearly 1 billion people suffer from chronic hunger today, almost 15 million of them refugees from conflict and natural disasters. According to the World Food Program, "More than nine out of ten of those who die I of chronic hunger] are simply trapped by poverty in remote rural areas or urban slums. They do not make the news. They just die." Mortality rates from hunger and lack of water will skyrocket over the next century, and given all that wiII be happening, that will probably not make the news, either--people will just die. Over the next one hundred years, the "breadbasket" regions of the world will shift northward. Consequently, formerly subarctic regions will be able to support farming, but these regions' traditionally small human populations and lack of infrastructure, including roads and utilities, will make the dra­matic expansion of agriculture a challenge. Moreover, extreme year-to-year climate variability may make sustainable agriculture unlikely, at least on the scale needed. Northwestern Europe, too, will see shorter growing seasons and declining crop yields because it will actually experience colder winters, due to the collapse of the MOC. At the same time that the resource base to support humanity is shrinking, there will be less inhabitable land. Ten percent of the world population now lives in low-elevation coastal zones (all land contiguous with the coast that is 10 meters or less in elevation) that will experience sea level rises of 6.6 feet (2 meters) in this scenario and 9.8 feet (3 meters) in the North Atlantic, given the loss of the MOC. Most major cities at or near sea level have some kind of flood protection, so high tides alone will not lead to the inundation of these cities. Consider, however, that the combined effects of more frequent and severe weather events and higher sea levels could well lead to increased flood­ing from coastal storms and coastal erosion. In any case, there will be saltwa­ter intrusion into coastal water supplies, rising water tables, and the loss of coastal and upstream wetlands, with impacts on fisheries. The rise could well occur in several quick pulses, with relatively stable peri­ods in between, which will complicate planning and adaptation and make any kind of orderly or managed evacuation unlikely. Inundation plus the combined effects of higher sea levels and more frequent tropical storms may leave many large coastal cities uninhabitable, including the largest American cities, New York City and Los Angeles, focal points for the national economy with a combined total of almost 33 million people in their metropolitan areas today. Resettling coastal populations will be a crippling challenge, even for the United States. Sea level rises also will affect food security. Significant fertile deltas will become largely uncultivable because of inundation and more frequent and higher storm surges that reach farther inland. Fisheries and marine eco­systems, particularly in the North Atlantic, will collapse. Locally devastating weather events will be the new norm for coastal and mid-latitude locations-wind and flood damage will be much more intense. There will be frequent losses of life, property, and infrastructure-and this will happen *every year.* Although water scarcity and food security will dis­proportionately affect poor countries-they already do-extreme weather events will be more or less evenly distributed around the world. Regions affected by tropical storms, including typhoons and hurricanes, will include all three coasts of the United States; all of Mexico and Central America; the Caribbean islands; East, Southeast and South Asia; and many South Pacific and Indian Ocean islands. Recent isolated events when coastal storms made landfall in the South Atlantic, Europe, and the Arabian Sea in the last few years suggest that these regions will also experience a rise in the incidence of extreme storms. In these circumstances, there will be an across-the-board decline in human development indicators. Life spans will shorten, incomes will drop, health will deteriorate-including as a result of proliferating diseases-infant mortality will rise, and there will be a decline in personal freedoms as states fall to anocracy (a situation where central authority in a state is weak or non­existent and power has devolved to more regional or local actors, such as tribes) and autocracy. **The Age of Survival: Imagining the Unimaginable Future** If New Orleans is one harbinger of the future, Somalia is another. With a weak and barely functional central government that does not enjoy the trust and confidence of the public, the nation has descended into clan warfare. Mortality rates for combatants and noncombatants are high. Neighboring Ethiopia has intervened, with troops on the ground in Mogadishu and else­where, a small African Union peacekeeping force is present in the country, and the United States has conducted military missions in Somalia within the last year, including air strikes aimed at terrorist groups that the United States government has said are finding safe haven in the chaos." In a July 2007 report, the UN Monitoring Group on Somalia reported that the nation is "lit­erally awash in arms" and factional groups are targeting not only all combat­ants in the country but also noncombatants, including aid groups. Drought is a regular feature of life in Somalia that even in the best of times has been difficult to deal with. These are bad times, indeed, for Somalia, and the mutually reinforcing cycle of drought, famine, and conflict has left some 750,000 Somalis internally displaced and about 1.5 million people-17 per­cent of the population-in dire need of humanitarian relief. The relief is dif­ficult to provide, however, given the lawlessness and violence consuming the country. For example, nearly all food assistance to Somalia is shipped by sea, but with the rise of piracy, the number of vessels willing to carry food to the country fell by 50 percent in 2007.u Life expectancy is forty-eight years, infant mortality has skyrocketed, and annual per capita GDP is estimated to be about six hundred dollars. The conflict has also had a negative effect on the stability of surrounding nations. In the catastrophic climate change scenario, situations like that in Soma­lia will be commonplace: there will be a sharp rise in failing and failed states and therefore in intrastate war. According to International Alert, there are forty-six countries, home to 2,7 billion people, at a high risk of violent con­flict as a result of climate change. The group lists an additional fifty-six nations, accounting for another 1.2 billion people, that will have difficulty dealing with climate change, given other challenges. 12 Over the next hundred years, in a catastrophic future, that means there are likely to be at least 102 failing and failed states, consumed by internal conflict, spewing desperate refugees, and harboring and spawning violent extremist movements. More­over, nations all over the world will be destabilized as a result, either by the crisis on their borders or the significant numbers of refugees and in some cases armed or extremist groups migrating into their territories. Over the course of the century, this will mean a collapse of globalization and transnational institutions and an increase in all types of conflict-most dramatically, intrastate and asymmetric. The global nature of the conflicts and the abruptness of the climate effects will challenge the ability of govern­ments all over the world to respond to the disasters, mitigate the effects, or to contain the violence along their borders. There will be civil unrest in every nation as a result of popular anger toward governments, scapegoating of migrant and minority populations, and a rise in charismatic end-of-days cults, which will deepen a sense of hopelessness as these cults tend to see no end to misery other than extinction followed by divine salvation. Given that the failing nations account for half of the global population, this will also be a cataclysmic humanitarian disaster, with hundreds of mil­lions of people dying from climate effects and conflict, totally overwhelming the ability of international institutions and donor nations to respond. This failure of the international relief system will be total after 2040 as donor nations are forced to turn their resources inward. There will be a worldwide economic depression and a reverse in the gains in standards of living made in the twentieth and early twenty-first centuries. At the same time, the probability of conflict between nations will rise. Although global interstate resource wars are generally unlikely;" simmering conflicts between nations, such as that between India and Pakistan, are likely to boil over, particularly if both nations are failing. Both India and Pakistan, of course, have nuclear weapons, and a nuclear exchange is possible, perhaps likely, either by failing central governments or by extremist and ethnic groups that seize control of nuclear weapons. There will also be competition for the Arctic region, where natural resources, including oil and arable land, will be increasingly accessible and borders are ill defined. It is possible that agreements over Arctic territories will be worked out among Russia, Canada, Norway, the United States, Iceland, and Denmark in the next two decades, before the truly catastrophic climate effects manifest themselves in those nations. If not, there is a strong probability of conflict over the Arctic, pos­sibly even armed conflict. In general, though, nations will be preoccupied with maintaining internal stability and will have difficulty mustering the resources for war. Indeed, the greater danger is that states will fail to muster the resources for interstate cooperation. Finally, all nations are likely to experience violent conflict as a result of migration patterns. There will be increasingly few arable parts of the world, and few nations able to respond to climate change effects, and hundreds of millions of desperate people looking for a safe haven-a volatile mix. This will cause considerable unrest in the United States, Canada, Europe, and Russia, and will likely involve inhumane border control practices. Imagining what this will actually mean at a national level is disheartening. For the United States, coastal cities in hurricane alley along the Gulf Coast will have to be abandoned, possibly as soon as the first half of the century, certainly by the end of the century. New Orleans will obviously be first, but Pascagoula and Bay St. Louis, Mississippi, and Houston and Beaumont, Texas, and other cities will be close behind. After the first couple of episodes of flooding and destructive winds, starting with Hurricanes Katrina and Rita in 2005, the cities will be partially rebuilt; the third major incident will make it clear that the risk of renewed destruction is too high to justify the cost of reconstruction. The abandonment of oil and natural gas production facilities in the Gulf region will push the United States into a severe recession or even depression, probably before the abrupt climate effects take hold in 2040. Mex­ico's economy will be devastated, which will increase illegal immigration into the United States. Other major U.S. cities are likely to become uninhabitable after 2040, including New York City and Los Angeles, with a combined metropolitan population of nearly 33 million people. Resettling these populations will be a massive challenge that will preoccupy the United States, cause tremen­dous popular strife, and absorb all monies, including private donations, which would have previously gone to foreign aid. The United States, Canada, China, Europe, and Japan will have little choice but to become aggressively isolationist, with militarized borders. Given how dependent all these nations are on global trade, this will provoke a deep, persistent eco­nomic crisis. Standards of living across the United States will fall dramatically, which will provoke civil unrest across the country. The imposition of martial law is a possibility. Though the poor and middle class will be hit the hardest, no one will be immune. The fact that wealthier Americans will be able to manage the effects better, however, will certainly provoke resent­ment and probably violence and higher crime rates. Gated communities are likely to be commonplace. Finally, the level of popular anger toward the United States, as the leading historical contributor to climate change, will be astronomical. There will be an increase in asymmetric attacks on the American homeland. India will cease to function as a nation, but before this occurs, Pakistan and Bangladesh will implode and help spur India's demise. This implosion will start with prolonged regional heat waves, which will quietly kill hundreds of thousands of people. It will not immediately be apparent that these are cli­mate change casualties. Massive agricultural losses late in the first half of the century, along with the collapse of fisheries as a result of sea level rise, rising oceanic temperatures, and hypoxic conditions, will put the entire region into a food emergency. At first, the United States, Australia, China, New Zealand, and the Nordic nations will be able to coordinate emergency food aid and work with Indian scientists to introduce drought- and saltwater-resistant plant species. Millions of lives will be saved, and India will be stabilized for a time. But a succession of crippling droughts and heat waves in all of the donor nations and the inundation of several populous coastal cities will force these nations to concentrate on helping their own populations. The World Food Program and other international aid agencies will first have trouble operating in increasingly violent areas, and then, as donations dry up, will cease operations. Existing internal tensions in India will explode in the latter half of the century, as hundreds of millions of starving people begin to move, trying to find a way to survive. As noted above, a nuclear exchange between either the national governments or subnational groups in the region is possi­ble and perhaps even likely. By mid-century, communal genocide will rage unchecked in several African states, most notably Sudan and Senegal, where agriculture will com­pletely collapse and the populations will depend on food imports. Both nations will be covered with ghost towns, where entire populations have either perished or fled; this will increasingly be true across Africa, South Asia, Central Asia, Central America, the Caribbean, South America, and Southeast Asia. Europe will have the oddity of having to deal with far colder winters, given the collapse of the MOC, which will compromise agricultural productivity.

### 1ac Solvency

#### Contention \_\_\_\_\_ is Solvency

#### Boosting investment through higher fuel taxes will generate revenue for waterway infrastructure modernization and improvement

Scott, 12 (May 2012, Doug, “Short Take from May 2012; ASCE Tells Congress More Must Be Invested in Inland Waterways,” <http://www.asce.org/ascenews/shorttakes.aspx?id=25769808619>, JMP)

Testifying on April 18 before the U.S. House Transportation and Infrastructure Committee’s Subcommittee on Water Resources and Environment, James A. Rossberg, P.E., M.ASCE, the Society’s managing director of engineering programs, said that efforts by the administration and Congress to address the growing investment deficit in waterways infrastructure have largely been ineffectual because of political considerations that give precedence to deficit reduction and tax cuts over the badly needed restoration of critical infrastructure.

“We can sum up the present situation concisely,” Rossberg said before the subcommittee chair, Bob Gibbs (R-Ohio), and the ranking minority member, Tim Bishop (D–New York). “These policy failures at the White House and in Congress threaten the nation’s economic competitiveness in a global economy.

“ASCE’s 2009 Report Card for America’s Infrastructure gave the nation’s inland waterways a grade of D–, an indication that the system is near failure. Neither [the] president nor Congress has done anything in the years since to improve upon that extremely dismal assessment by adopting a long-term, systematic approach to improve the performance and condition of our national waterways.”

The Subcommittee on Water Resources and Environment deals with water resources development, water pollution control, water infrastructure, conservation and management, and hazardous waste cleanup. It held the April 18 hearing to receive expert testimony on how the reliability of inland waterways systems will affect the country’s economic competitiveness.

Rossberg began by citing the U.S. Army Corps of Engineers’ Great Lakes and Ohio River Navigation Systems Commerce Report, 2008 in telling the subcommittee that the United States has more than 25,000 mi of inland, intracoastal, and coastal waterways. The federal government improves and maintains almost 11,000 mi, or about 45 percent, of the total channel length. This includes dredging and the installation and maintenance of such navigation structures as locks, dams, dikes, revetments, and groins. The federal and state governments, along with port authorities and carriers, he said, share responsibility for the nation’s waterway transportation system. The inland waterway transportation industry, he explained, is characterized by extensive cooperation and coordination on the part of the public and private sectors, and the waterway navigation projects that facilitate safe passage for vessels are maintained by the Corps of Engineers.

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

The administration’s budget proposal for fiscal year (FY) 2013 for the Corps of Engineers would provide $4.7 billion, a decrease of more than 5 percent from the $5 billion approved for the current fiscal year. Rossberg said that ASCE believes this level of spending is insufficient to meet the country’s national security, economic, and environmental needs in the 21st century.

“The president’s budget for FY 2013 is inadequate to meet the needs of an aging waterways infrastructure and must be increased,” said Rossberg. “Congress must increase funding for the Corps in the coming fiscal year in order to protect an essential economic asset and ensure American competitiveness in the 21st century.

“The administration’s proposal for FY 2013 would reduce construction funding from $1.694 billion to $1.471 billion, a reduction of 13 percent. Operations and maintenance funding would be down slightly, from $2.412 billion to $2.398 billion. The Mississippi River and tributaries account would decline from $252 million to $234 million, or seven percent. Investigations—the money used to complete project feasibility studies—would go from $125 million to $102 million, a decline of 18 percent. In all, the [Corps of Engineers] civil works program budget for FY 2013 would be cut from $5.002 billion in FY 2012 to $4.731 billion in FY 2013, an overall reduction of 5.4 percent.”

Rossberg told the subcommittee that ASCE recommends $5.2 billion in new budget authority for the Corps of Engineers in FY 2013 to account for inflation and to halt the continuing decline in funding for the Corps’s work. This level of funding is necessary to ensure safe infrastructure and a sound economy. Pubic investment in inland waterways, he said, is needed throughout the country to reverse the present course of declining infrastructure.

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

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

To obtain the funds for greater investment, Rossberg mentioned a proposal made in April 2010 by the Inland Waterways Users Board, a consortium established by Congress. That plan called for increasing the diesel fuel tax from 20 cents to as much as 29 cents per gallon. It also recommended that the practice of equal sharing of costs for projects costing more that $100 million by federal and local authorities continue but suggested that the federal government cover the full cost of projects costing less than $100 million. The Inland Waterways Users Board estimated that its plan would provide $7.6 billion in new revenues over 20 years.

“Doing more with less is not a solution,” concluded Rossberg. “It is a political slogan that ignores the consequences of continuing to underinvest in essential infrastructure, and it contains the seeds of future disasters. It is obvious that recent drastic budget cuts or the complete elimination of funding means that little or nothing will be done to maintain these vital programs. America cannot compete in the world marketplace with 100-year-old locks, too-shallow harbors, impoverished investments in key infrastructure systems, and a seeming blindness on the part of policy makers to the economic peril we face. Enabling the eventual failure of the nation’s essential public infrastructure through arbitrary budget cutting is deeply troubling. Placing abstract notions of budget deficits above the primary duty of the federal government to protect human life and promote economic growth is a dubious policy choice, a choice whose lethal consequences were amply demonstrated in New Orleans in the wake of Hurricane Katrina and the failure of that city’s inadequately budgeted and constructed levee system. Congress must never be able to escape the knowledge that it was complicit in the failure. Congress and the president can never say, ‘We weren’t told.’”

#### A federal investment strategy is key to effectively expand inland waterways --- imposes obligations on government planners and decision makers

[--- a user pays model can ensure sufficient financing]

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

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

Even after decades of mergers, it is still common to find two or more competing railroads running side-by-side. Moreover, even when one rail route is not visible from the tracks of another, there is generally railroad competition. Literally hundreds of thousands of US city pairs are linked by two, three, four, or five different rail carriers or rail carrier combinations. If there is any lack of competition at all it is generally over the last few miles over which railroad customers connect to the greater railroad network. This is not true of the inland navigation system. With only few exceptions there are not duplicate waterway network links. In most cases, there is only one waterway route between any origin-destination pair and little or no opportunity to create competing routes. Within economics, this outcome is referred to as a natural monopoly. n21 Unimpeded, any single firm that controlled the waterway network (or any of its component parts) could impose monopoly prices. Again, competition, through the development of a competing navigation network is impossible. Thus, the federal government is faced with only two choices, it could lease control of the inland navigation system to one or more franchise holders and carefully regulate their activities (pricing, network access, service levels, etc.) or it must retain control of the system and operate it equitably to the benefit of all waterway users. We have very wisely chosen the latter course.

The efficient federal control of the inland waterway network imposes obligations on government planners and decision makers that are relatively easy to describe. They must design a network sufficient in extent and capacity to ensure that any further expansion would impose incremental costs that are greater than corresponding additional benefits. The cost of actually constructing, operating, and maintaining the resulting system must then be recovered through fees charged to those who benefit from the waterway's use. Fees faced by each group of users should (at least) reflect any costs that are directly incremental to that group's use. n22

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

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

#### Increasing funding for infrastructure investments will prevent catastrophic failures in the system --- further delay risks economic crises

Boselovic, 12 (3/25/12, Len, Pittsburgh Post-Gazette, “LEGISLATION PROPOSED TO FUND DETERIORATING LOCKS AND DAMS,” Factiva, JMP)

WASHINGTON -- Legislation that would more than double the money available each year to fix the nation's crumbling locks and dams could be introduced as early as this week. It also would raise for the first time in 17 years the tax that barge operators pay to support the river infrastructure projects, a tax increase the industry is supporting.

The measure would not impose tolls on barges moving through locks, an idea the barge industry has successfully fought for more than 70 years, and would make taxpayers bear more of the cost burden for projects.

The legislation, to be introduced by U.S. Rep. Ed Whitfield, R- Ky., would implement recommendations that a task force composed of U.S. Army Corps of Engineers personnel and industry officials made in 2010 to clean up an $8 billion backlog of projects. The backlog, caused in part by piecemeal funding from Congress that is limited to about $170 million a year, has increased the costs and delayed completion of projects nationwide.

Corps officials say delays put more pressure on the antiquated facilities and increase the chances that a debilitated lock or dam will fail, an event they say would have widespread economic consequences. The potential impacts include higher electricity costs, water supply issues and increased congestion on highways as trucks would be required to deliver goods normally moved on rivers.

Nearly 60 percent of the more than 200 locks on the nation's rivers are more than 50 years old, which is how long they were built to last. Several of them are in Western Pennsylvania, including the locks and dam on the Monongahela River at Elizabeth that were completed in 1907.

To speed the replacement of at-risk facilities, the legislation would provide $380 million in funding for 20 years. Most of the new money would be provided by taxpayers. The measure also would increase the diesel fuel tax that barge operators pay to support those projects to 26 cents. It has been 20 cents per gallon since 1995.

The gas tax generates about $85 million each year for lock and dam projects, money that is matched by taxpayers.

"We're willing to pay more. Our customers are willing to pay more," said Michael Toohey, president of the Waterways Council, an Arlington, Va., group that represents barge operators, shippers and related groups.

#### Spending is inevitable --- doing it now is better to prevent much greater spending and economic decline in the future

Pittsburgh Post-Gazette, 12 (3/25/2012, “WATER TORTURE CONGRESS NEEDS TO ACT ON DECAYING LOCKS AND DAMS,” Factiva, JMP)

To put it another way, previous generations have bequeathed great works of engineering to Americans living today, but the challenge of keeping up the system has not been met. While some projects proceed, others are put off or delayed. With each delay comes more complications and greater cost. The Corps of Engineers is forced to play a losing game of catch-up, making emergency repairs to put off the day of reckoning.

Congress bears the prime responsibility. The buck has literally stopped on Capitol Hill. While $8 billion has been authorized for locks and dams, Congress has failed to fund projects up front, setting up the cycle that is beggaring the system.

The funding system needs an overhaul, but it already generates $170 million a year -- half from a 20-cents-a-gallon fee that barge operators pay on diesel fuel they use, which is then matched by the federal government. At that rate it will take 22 years just to complete seven major projects under way; the others will have to wait.

The first thing Congress must do is take the threat seriously and view barge traffic with as much consideration as it does road and rail transportation. Yes, the federal deficit is a problem and spending must be limited. But if ever there was a penny-wise and pound-foolish approach, it has been on the nation's waterways infrastructure. When it fails, a large part of the economy fails with it.

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There's still time. A 2010 report produced by the industry and corps suggested raising the diesel fuel tax to between 26 and 29 cents and to use the trust fund exclusively for lock construction and repair projects costing $100 million or more, with other projects picked up by the federal government. Soon legislation will be introduced in Congress to increase funding to $380 million a year -- and that should be taken up as a matter of urgency.

The Post-Gazette has often editorialized about the problems of aging locks and dams and the need to do something, but never before has an in-depth series laid out the stakes so starkly and comprehensively. Will anyone listen? Or must a disaster happen in order to get the nation's attention? No one wants to write an editorial that begins, "We told you so."

#### **Federal action is key to ensure increased use of inland waterways for freight transportation --- private action will fail**

DOT 2011 (United States Department of Transportation, April 2011, “America’s Marine Highway Report to Congress”, <http://www.marad.dot.gov/documents/MARAD_AMH_Report_to_Congress.pdf>”)

Despite significant progress in short sea container transportation in Europe and recent successful service startups here in the United States, America's Marine Highway must still overcome barriers before it can reach its potential. Disincentives to increased use of the Marine Highway include the unfamiliarity of shippers with this domestic transportation alternative, the lack of an established network of frequent service for container and trailer cargoes, the need for coordinated investment in port infrastructure and vessels, tax issues, and the fact that public benefits attributable to the use of Marine Highway services do not factor into many private sector transportation decisions.

The private sector will ultimately be the key to the success of America’s Marine Highway through innovation, outreach, and investment. Private operators must demonstrate to shippers and the public that they can provide highly reliable and cost-effective transportation services by sound management and implementation of the most appropriate technologies for the safe and efficient delivery of cargoes and passengers. They must make efforts to provide greater schedule frequencies and lower the overall cost of service. They must reach out to potential customers, addressing their specific needs and concerns.

Without strong leadership from the Federal government, however, the nation's rivers and coastal waterways will continue to be underutilized for domestic container and trailer freight transportation. It is difficult for private operators to support the scale of investment needed to initiate large scale operations. Private operators are particularly disadvantaged by the fact that many of the important public benefits of water transportation, including congestion reduction, environmental sustainability, and system resiliency, cannot be captured in the form of higher revenues or lower costs to company profits. Government action is required to help overcome these challenges and assist the expansion of Marine Highway services in a significant manner.

#### The plan creates immediate employment and allows the U.S. to double exports over the next five years

Toohey, 11 --- President and CEO of Waterways Council, Inc. (9/21/2011, Mike, Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

Mr. Chairman, we face a critical time in the history of the waterways in America. It is imperative that we modernize the vital infrastructure supporting commerce on our inland waterways. There are numerous projects that are fully authorized and ready for construction to commence or continue. In this sluggish economy where the unemployment rate is over 20% for construction workers, these projects can put thousands of people to work right away. And, these projects, once completed, will provide billions of dollars of activity for the American economy.

The President has called for the doubling of exports from the United States in the next five years.

If we do not properly invest in the waterways of this country, it will be impossible to achieve that worthy goal. It is gratifying to see that the President included investments in waterways infrastructure in his American Jobs Act that he recently sent to Congress. We look forward to working with the Administration and this Subcommittee to take the necessary steps to recapitalize our Nation's inland waterways system.

## Contention 1 Extensions

### Inherency --- Capital Investment Plan

#### Administration doesn’t currently support the capital investment plan

Waterways Journal, 11 (2/7/2011, Editorial, “Objections Stifle Plan To Improve Infrastructure,” <http://www.waterwaysjournal.net/news020711.html>, JMP)

The Obama administration has come out against the long-term capital investment plan developed jointly by the Corps of Engineers and the Inland Waterways Users Board.

Waterways Council Inc. voiced its disappointment but indicated its intention to continue working with Congress to address the problem.

How long will it take to convince the administration that boosting employment levels is a critical step in alleviating the economic problems we face, and that investing in infrastructure is among the very best ways to put people back to work? Waterways infrastructure is not the only infrastructure to which that advice applies, but the inland waterways system is in critical condition. Therefore, investment in improvements could help us reach two major goals: boost employment and fix an infrastructure that is vulnerable to breakdown. According to many sources, including The American Waterways Operators, more than 44 percent of the inland locks and dams are at least 50 years old, and many are too small to efficiently handle the large tows that transit them daily.

How long it will take the administration to understand the importance of waterways infrastructure? Perhaps the collapse of a major dam or breakdown of a series of locks will one day shake government out of its lethargy.

### Inherency --- Inland Waterways Trust Fund Underfunded

#### Current funding for the Inland Waterways Trust Fund isn’t adequate --- massive funding shortfalls

Critz, 12 (6/12/2012, Congressman Mark S. Critz (PA-12), Congressional Documents and Publications, “Critz and Doyle Advocate for Investment in Waterways Infrastructure...Fixing Trust Fund is necessary to repair and modernize region's locks and dams - Rep. Mark Critz (D-PA) News Release,” Factiva, JMP)

Mr. Critz: Thank you Mr. Doyle, Mr. Visclosky, Chairman for yielding time. I would like to add my voice to Mr. Doyle's on the issue of the aging state of our nation's waterways, and the vast shortfalls in funding urgently needed projects. I believe the Chairman has done his best, given the limited funds available in the Trust Fund, and would like to work with the gentleman from New Jersey to find a long term solution to this issue.

Consisting of over 230 lock chambers, our Inland Waterways move hundreds-of-millions of tons of cargo annually. To move this cargo on the nation's highways would require an additional 24 million trucks, would cost billions more in fuel costs, and generate millions of tons of pollution.

The federal government has invested in this infrastructure for over two hundred years. The locks and dams that are the backbone of this system are built with a 50-year design life, yet many --- for example those on the Monongahela River in western Pennsylvania--- are over 100 years old!

I am deeply trouble by the lack of funding for these projects, and specifically on the lack of progress on finding a solution to the funding shortfalls in the Inland Waterways Trust Fund. This fund generates roughly $85 million dollars per year through a fuel tax on barges, yet falls well short of the $380 million per year the Inland Waterways Users Board estimates is needed to fully fund capital reinvestments in the system.

The Department of Transportation projects that the waterway traffic will increase 20% by 2020. We can no longer afford to sit on our hands and wait for these vital lanes of commerce to fail. We need to invest in America and keep our federal waterways open for business. The Inland Waterways System is far too important to allow it to continue to languish with inadequate funding and crumbling infrastructure.

I look forward to working with the Chairman, the Ranking Member and Mr. Doyle to find a solution to this urgent need, and I yield back.

Mr. Frelinghuysen: I assure the gentlemen from Pennsylvania that I share their concern with the funding of the inland system and the solvency of the Inland Waterways Trust Fund. This is why you see extensive report language on Olmsted Lock and Dam and the cost overruns at that project as well as language on the trust fund itself. As the gentlemen are aware, any changes to address the solvency of the trust fund are most appropriately discussed within the authorizing committees. I know they are aware of the situation and are evaluating various options.

#### Inland Waterways Trust Fund revenues are not sufficient to meet modernization needs of the system

Toohey, 11 --- President and CEO of Waterways Council, Inc. (9/21/2011, Mike, Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

In order to fully understand the crisis confronting the inland waterways, it is useful to understand how the system is currently financed. With the enactment of the Water Resources Development Act of 1986 (WRDA 1986), operation of the Inland Waterways Trust Fund(IWTF) was modified to support modernization of the inland waterways system, beginning with seven new lock and dam projects authorized in that landmark legislation. The barge industry pays a $.20/gallon diesel fuel tax into the IWTF, which today generates between $70-to-$90million annually. A cost-sharing formula was established under which one-half of the WRDA1986 project construction costs were to be paid from the IWTF and the balance from general revenues. WRDA 1986 also created the Inland Waterways Users Board (IWUB) to advise Congress and the Secretary of the Army about inland waterways system priorities and spending levels.

For a period of time beginning in 1993 and continuing into the early part of this century, a surplus developed in the IWTF, peaking at $412.6 million in 2002. Through the cooperation of the Congress, the Administration, WCI and others, this surplus was spent down on key inland infrastructure projects so that today the surplus is essentially gone. The modernization needs of the system, however, remain great and far exceed the annual IWTF revenues.

#### Not sufficient resources now

Mark Critz, U.S. Congressman, June 6 2012, “Critz and Doyle Advocate for Investment in Waterways Infrastructure...Fixing Trust Fund is necessary to repair and modernize region's locks and dams, Critz and Doyle Advocate for Investment in Waterways Infrastructure...Fixing Trust Fund is necessary to repair and modernize region's locks and dams”, Critz.house.gov, <http://critz.house.gov/press-release/critz-and-doyle-advocate-investment-waterways-infrastructurefixing-trust-fund>)

I am deeply trouble by the lack of funding for these projects, and specifically on the lack of progress on finding a solution to the funding shortfalls in the Inland Waterways Trust Fund. This fund generates roughly $85 million dollars per year through a fuel tax on barges, yet falls well short of the $380 million per year the Inland Waterways Users Board estimates is needed to fully fund capital reinvestments in the system.

The Department of Transportation projects that the waterway traffic will increase 20% by 2020. We can no longer afford to sit on our hands and wait for these vital lanes of commerce to fail. We need to invest in America and keep our federal waterways open for business. The Inland Waterways System is far too important to allow it to continue to languish with inadequate funding and crumbling infrastructure.

#### **Water transportation relieves pressure from other transportation infrastructure but is hindered by outdated infrastructure**

The Herald Dispatch, 12 (5/24/2012, “Nation should invest in waterways facilities,” <http://www.herald-dispatch.com/opinions/x1198917856/Nation-should-invest-in-waterways-facilities>) WKS

America's inland waterways are a valuable part of the U.S. economy. As we see every day on the Ohio River, our systems of waterways help move coal, steel and many other products across the country. It not only is an inexpensive way to ship many goods, but it also takes the burden off our highway system. For example, the load of dry cargo that one barge can carry would require 16 rail cars or 70 tractor-trailer trucks on the road. With chemicals and liquid cargo, the ratio is even higher. But the aging system of locks and dams that keeps freight moving on our rivers needs a lot of work. More than half of the locks are more than 50 years old, and replacement and repair projects have been backed up for years. Meanwhile, breakdowns back up barge traffic by hours and days. The slowdown in the U.S. economy over the past few years may have taken the pressure off the problem, experts told USA TODAY this week. But as the economy begins to recover, the shortcomings of this piece of the nation's infrastructure will become more apparent. "The good news is the economy is turning," Dan Murray, vice president of the American Transportation Research Institute, told the newspaper. "The bad news is we expect congestion to skyrocket." That means more shipping expense for business that could hinder the recovery and make U.S. companies less competitive worldwide. Ultimately it could increase cost of products and services for the American consumer, too. So there are a lot of reasons to fix this problem, but with budget concerns in Washington and on the state level, it has been difficult to come up with a long-term solution. A trust fund was set up a number of years ago to provide funding for repairs, using government contributions and revenue from a fuel tax paid by barge operators. But in recent years, the rising costs of projects have depleted the fund, and now only a few can be completed each year. All the while, the cost of the projects in the pipeline mount. A lock project on the Ohio River near Olmsted, Ill., is one of the worst examples. Congress approved $775 million in 1988 to replace it, but the job ran into problems and is now estimated at $3.1 billion and will not be finished until 2020, USATODAY reported. Industry representatives and the U.S. Army Corps of Engineers have worked on a package of recommendations over the past year that would prioritize projects, improve management to bring work in on time and on budget, come up with an affordable user fee for the industry and requests a $380 million appropriation from the government each year. In today's climate, that additional funding will be a challenge, but the stakes are high and Congress needs to find a workable solution. Allowing the inland waterway system to continue to decline is not an option.

### Inherency --- Inadequate Funding Now

#### **Squo inevitably fails, Congress neglects funding for waterways and will continue to do so**

Buchsbaum, 12 – Associate Editor of Coal Age Magazine (2/2012, Lee, “LOCKED Out: Aging Locks and Dams Jeopardize Inland Waterways Is a catastrophic cascading systems failure about to occur along the Ohio River?” <http://www.uppermon.org/news/Other/CA-Locked_Out-Feb2012.html>)

Using the Corps and AEP’s data, in three years—by 2015—the main chambers of five dams, which currently lock through a combined 72.2 million tons per year (tpy), will fail (Hannibal L&D, 17.4 million tpy; Willow Island L&D, 17 million tpy; Belleville L&D, 16.5 million tpy; Lock 52, 17.9 million tpy; and Lock 53 3.4 million tpy). In fact, by 2020, both the main and auxiliary locks will have failed on four dams along with the mains on four others. Millions of tons would be displaced. Essentially, that amount of cascading lock and dam failures would clog up the river, perhaps rendering it uneconomical compared to competing modes as dwell times and costs rise precipitously. Too much hyperbole? Perhaps. But Darling and AEP believe that even today, one key installation failure could have tremendous repercussions. In his presentation, Darling discussed the ramifications of a hypothetical lock failure at the Belleville lock and dam, located at milepost 203.9 on the Ohio River. A team at AEP studied what the system-wide ramifications would be if a gate failure occurred at Belleville, essentially in middle of the Ohio River system. Belleville is one of six dams (out of 40) that has earned a “D” condition rating by the Corps. It is expected to fail sometime between today and 2015—along with four others. When, not if, Belleville fails, roughly 16.5 million tons of throughput could be affected, causing a displacement of well more than 1.3 million tons. That failure alone could “add about 6.8 cents per kilowatt-hour to the average customer. And the average customer uses about 100 kilowatts per day. Though $6.80 per day doesn’t sound like a lot, in a month that’s about $204 more that every electric utility customer of AEP would have to pay. And AEP is only one of many utilities along the Ohio River,” said Darling. Of course, any increased transportation costs will be further heaped upon the mountain of other costs from a whole slew of expensive environmental regulations and other burdens conspiring to drive up the cost of coal-fired generated electricity. How the Corps of Engineers Spends Its Funds So why are America’s dams failing and how well has Congress prepared the country by allocating the resources to prevent this looming systems failure? Not well. Think “neglect.” But, Darling cautioned, this long-term neglect “didn’t happen under this recession. It didn’t happen under Obama. This has been occurring over decades. Congress is not funding lock and dams,” he said. So what you have is a system constructed for a 50-year life that, through neglect, has seen its life expectancy actually decrease. However, industry will continue to use these same locks and dams longer than those planned 50 years. “It’s a situation that we can’t sustain without some investment,” Darling said. Currently maintenance of the Inland Waterways system comes from both funds allocated by Congress and from a variety of user fees administered by the Inland Waterways Trust Fund (IWTF). Currently the barge industry pays a $0.20/gallon diesel fuel tax into the IWTF. That adds up. AEP alone paid more than $10.2 million into the fund in 2010. A cost-sharing formula was established in 1986 so that half the lock and dam construction costs are paid out of the IWTF and the balance from general revenues. This includes construction and major rehabilitation initiatives. The Inland Waterways Users Board was also established in 1986 to advise Congress and the Secretary of the Army about inland waterways system priorities and spending levels. Currently the Trust Fund generates roughly $70-$90 million annually, far less than what is necessary. The modernization needs of the system, as projected by both AEP and the Corps, far exceeds the annual IWTF revenues. And currently far too much of those meager revenues are being sucked up by just one project: the infamous Olmsted Lock and Dam. Olmsted Lock and Dam: Boondoggle on the Ohio The Olmsted Lock and Dam construction project is actually two projects at once. One is the actual construction of the new locks and dam, but also the phasing out of the busy locks 52 and 53. Located just up-stream of the confluence of the Ohio and Mississippi at Cairo, Ill., Olmsted replaces these older dams with the one new one. “It’s just become an enormously expensive proposition,” said Toohey. In 1988, Congress authorized the Olmstead project at $775 million for a 12-year construction period. Because of the cost sharing formula for the initial funding authorization, about half of the cost was to come out of the IWTF, roughly $387 million over those 12 years. “What that worked out to was about $32 million a year spread over 12 years to come out of that fund for one project. But the fund is still supposed to fund all of the major projects on all the locks and dams on all the rivers in the U.S.,” Darling said. However, the Olmsted project quickly fell behind schedule. After spending more than $1.3 billion so far, there continue to be problems, delays, and more delays. Over this time, Olmsted’s project cost has ballooned to more than $2.1 billion. And now, instead of a 12-year project, it will take at least 26 years to complete. Worse for the IWTF, “using the same cost sharing formula, 50% or $1.05 billion will come out of the fund. That’s $40.3 million per year for at least 26 years. And the sad part is, the Corps says it doesn’t think it can meet that. So Olmsted is going to be higher in cost than even this and it’s going to be a longer timeline to completion. The business model for financing our navigation infrastructure just isn’t working,” Darling said. There’s a growing sense of frustration and almost helplessness in the industry because no other projects can be prosecuted or implemented until Olmsted is back on schedule or completed—or the rules are changed. “We’re very concerned because the project is commanding all the money for this modernization build out, even though we have 25 other authorized projects. That’s more than $8 billion of backlogged work that we can’t get to because of the priority Congress has established for the appropriation of funds,” said Toohey. So in essence, as those contractors fritter away the time, and increase the price of the project, Congress has put all other major waterways projects on hold. “In its defense, Olmsted has great benefits. It returns $8 back to the community for every dollar invested. It’s a good project, but it’s just become an enormously expensive project. That’s probably because of the use of experimental engineering technology. They are trying to build a dam in the wet rather than use traditional structures,” said Toohey.

### --- Infrastructure Failures Now

#### Our lock-and-dam system is outdated and risks catastrophic failures

Steel Business Briefing 11 (Steel Business Briefing News, 05/29/11. “Lack of Waterway Funding a Serious Concern in US”. Factiva.) WKS

America’s inland waterways – the system of rivers, locks and dams used to transport various commodities, including steel – are in need of serious work to repair aging infrastructure, but scarcity of funding and the lack of consideration from the federal government are major concerns for the industries that rely on the system for the transportation of goods.

The issue was discussed at this week’s Critical Commodities Conference in New Orleans, which was sponsored by the American Institute for International Steel and the Port of New Orleans.

In the last 10 years, unscheduled outages within the locks-and-dams system are up some 200%, according to Jim Stark, executive director of the Gulf Intracoastal Canal Association, and the lack of a coherent long term plan will result in even more unscheduled outages and other "catastrophic failures," he told conference attendees, which included Steel Business Briefing.

Locks and dams received a "D-" on the American Society of Civil Engineers' (ASCE) 2009 Report Card for America's Infrastructure. The average age of the current system is approximately 60 years, well past the 50-year design life, Stark pointed out.

"It's a joke and a shame that we have to beg and plead [the federal government] for infrastructure investment," commented attorney Chris Kane of the Adams and Reese LLP firm.

Stark estimated some 624m shorttons of cargo are shipped on America's inland waterways each year, SBB notes.

#### Inland waterway infrastructure collapse is coming and will be costly

Pittsburgh Post-Gazette, 12 (Pittsburgh Post-Gazette, 03/25/12. “Water Torture Congress Needs To Act on Decaying Locks and Dams”. ProQuest) WKS

"This is a ticking time bomb. It's not a matter of if but when there will be a catastrophic failure on our inland waterway system." -- Michael Hennessey, chairman of the National Waterways Foundation, a research group funded by river transportation companies

Those who think this warning is just industry alarmism should read Post-Gazette reporter Len Boselovic's four-part series that began last Sunday. The facts themselves shout the alarm.

The Army Corps of Engineers, the agency charged with maintaining the system, agrees that the nation's 11,000-mile inland waterways are "a crisis headed for a catastrophe," in the words of a high- ranking corps official.

Pittsburgh, which owes its location and historic emergence to the meeting of three rivers, is particularly in peril. The region's 23 locks and dams, key to the annual passage of 33 million tons of coal, petroleum and other commodities, are some of the oldest in the nation.

At the Elizabeth locks and dams, 105 years old, chunks of concrete periodically fall from a collapsing roof in the tunnel that carries water to fill and empty the lock chambers. Farther up the Monongahela River at Charleroi, the walls of a lock built in 1932 sway back and forth with each filling and emptying.

What happens if or when a catastrophic failure occurs? River traffic will shut down for months. Local economies will suffer. Cargoes will be put on more expensive rail cars and trucks -- barges are estimated to be $14 a ton cheaper -- and this will have costly implications for businesses and consumers alike.

Electricity rates will go up; an October study by the corps estimated that a closure of the Lower Mon could increase electricity costs by $1 billion annually. Communities that take water from the river could experience problems.

When disaster strikes, it will come because of absent-minded, half-hearted political neglect. More than half the nation's locks and dams, built to last 50 years, are still operating years after their projected life.

To put it another way, previous generations have bequeathed great works of engineering to Americans living today, but the challenge of keeping up the system has not been met. While some projects proceed, others are put off or delayed. With each delay comes more complications and greater cost. The Corps of Engineers is forced to play a losing game of catch-up, making emergency repairs to put off the day of reckoning.

Congress bears the prime responsibility. The buck has literally stopped on Capitol Hill. While $8 billion has been authorized for locks and dams, Congress has failed to fund projects up front, setting up the cycle that is beggaring the system.

The funding system needs an overhaul, but it already generates $170 million a year -- half from a 20-cents-a-gallon fee that barge operators pay on diesel fuel they use, which is then matched by the federal government. At that rate it will take 22 years just to complete seven major projects under way; the others will have to wait.

The first thing Congress must do is take the threat seriously and view barge traffic with as much consideration as it does road and rail transportation. Yes, the federal deficit is a problem and spending must be limited. But if ever there was a penny-wise and pound-foolish approach, it has been on the nation's waterways infrastructure. When it fails, a large part of the economy fails with it.

There's still time. A 2010 report produced by the industry and corps suggested raising the diesel fuel tax to between 26 and 29 cents and to use the trust fund exclusively for lock construction and repair projects costing $100 million or more, with other projects picked up by the federal government. Soon legislation will be introduced in Congress to increase funding to $380 million a year -- and that should be taken up as a matter of urgency.

The Post-Gazette has often editorialized about the problems of aging locks and dams and the need to do something, but never before has an in-depth series laid out the stakes so starkly and comprehensively. Will anyone listen? Or must a disaster happen in order to get the nation's attention? No one wants to write an editorial that begins, "We told you so."

### --- AT: Repairs Solve

#### Repair policy is just a band-aid --- still leaves costly delays

Boselovic, 12 (3/18/2012, Len, “Locked and Dammed: The region's 23 locks and dams are on the brink of failure,” <http://www.post-gazette.com/stories/news/environment/locked-and-dammed-the-regions-23-locks-and-dams-are-on-the-brink-of-failure-517289/?print=1>, JMP)

'Fix when fail'

Faced with flat funding, the Corps has adopted a "fix when fail" approach to maintaining locks and dams.

Take what happened at the Montgomery Dam on the Ohio River near Shippingport in 2006. A week after the Corps concluded that the dam had structural problems, a runaway barge hit it, damaging two of 10 100-foot-wide steel gates used to control the flow of water.

"Since that time, we've only had enough funds to put Band-Aids on the gates," said the Corps' Mr. Fisher. "We are at the border of 'fix when fail' and 'failing to fix.' "

With preventive maintenance crimped, barge operators face more frequent and longer delays as locks break down. On the Ohio River, the number of hours lost annually because of outages has tripled since 2000 to 80,000 hours, members of the House Committee on Transportation and Infrastructure were told last fall.

"I have never seen the disruptions to traffic we have now," said Martin T. Hettel, the American Electric Power manager responsible for moving coal on AEP barges to the Columbus, Ohio, utility's power plants.

The delays occur even though the Corps spends millions each year to keep outdated facilities functioning.

"That's just throwing money down a rat hole," said William Harder, a former navigation manager in the Corps' Great Lakes and Ohio River division who retired last year.

Dams are used to generate hydroelectric power and prevent flooding. They are also used to hold back water, creating a pool deep enough for barges to move up and down the river. Because the water level rises and falls at different points along rivers, locks are used to raise and lower barges depending on the depth of the river where they are coming from and the depth of the river where they are headed.

Mr. Hennessey said that if the dam at Elizabeth collapsed, "instead of having 9 or 10 feet for commercial navigation, you might have 2 feet and then everything stops."

Corps and industry officials say it would take three or more years to replace a failed lock and even longer if a dam had to be replaced.

### **--- AT: ARRA Solved**

#### ARRA didn’t help locks and dams

Petry, 9 (10/2/09, Corinna, Metal Bulletin, “Waterway shippers trying to get attention and federal funds,” LexisNexis, accessed June 18, 2012)

Noting that the Great Lakes ports and locks, river locks and dams have been largely ignored by the American Recovery and Reinvestment Act (ARRA), two industry spokesmen laid out the dangers faced if little or no improvement is made. Barges in the Mississippi, Ohio, Illinois, Monongahela and Tennessee river valleys move iron ore, alloys, ferrous scrap and metallurgical coal to steel mills and, frequently, finished products from the mills, Dan Mecklenborg, chairman of the Waterways Council Inc. and senior vice president and chief legal counsel for Ingram Barge Co., Nashville, Tenn., said at AMM's Infrastructure and Steel Conference in Chicago. The Inland Waterways Trust Fund, containing money gathered from barge and towboat operators to co-finance dredging and lock improvements in a 50/50 cost-share arrangement with the U.S. Army Corps of Engineers, "is nearing depletion," Mecklenborg said. The fund has fallen from a peak of $412 million in 2002 to $112 million this year. With regard to river traffic improvements, the Army Corps "is the only game in town," he said, and although it has estimated $2.2 billion is required over the next 10 years to complete projects already started, "there is no money to address that. More than $280 million would be needed per year from the Inland Waterways Trust Fund, assuming the 50/50 cost sharing continues." The ARRA infrastructure funding helps, he said, but only for one year. The Waterways Council, whose membership includes Nucor Corp., Charlotte, N.C., U.S. Steel Corp., Pittsburgh, and New Orleans-based Southern Recycling, also worries about the federal government's 2010 budget proposal to phase out the diesel tax, which helps finance riverway work, in favor of a lockage tax. "We think it's a bad idea," Mecklenborg said. First, every barge and towboat operator pays the diesel tax, but many barges do not pass through the locks, diminishing funding sources. In addition, "it is a disincentive (for barge operators) to use riverways with locks, including Pittsburgh and Chicago," major ports for steel raw materials. Much of that freight might end up with the railroads. "We are trying to work with the Army Corps to solve the funding problems and to promote efficiencies, especially due to the competition from rail," Mecklenborg said. Meanwhile, the Great Lakes fleets are plagued by two major problems, according to Glen Nekvasil, secretary of the Great Lakes Maritime Task Force and vice president of communications for the Lake Carriers' Association. One is the 16 million cubic yards of sediment that must be removed from ports throughout the system, according to an Army Corps estimate. For many years, iron ore carriers and other ships have had to move less than shiploads because ports are not deep enough. One port, Dunkirk on Lake Erie, which used to handle 500,000 tons of coal per year, has been shut down because the water is too shallow. "That business is gone for the lake fleet," Nekvasil said. "Eight or nine of 10 ships are less than full" because port channels are not wide and/or deep enough to match the ships' capacity, he said, adding that the 1,000-foot-long iron ore ships can haul 72,000 tons but most carry less than 67,000 tons. "Light loading hurts industry," Nekvasil said. Great Lakes U.S. flag carriers typically carry 60 million tons of iron ore, 40 million ton of coal and 35 million tons of limestone per year. This year is an exception due to significantly lower demand: cargoes were down 48 percent through July. Congress gave the Army Corps about $4.6 billion in ARRA funds, Nekvasil said. "The Great Lakes got 2 percent of that." The second major problem facing lake carriers is the condition of locks. Seventy percent of U.S.-flagged capacity is restricted to the Poe lock at Sault Ste. Marie. A second, wider Poe lock will cost $490 million. Ground broke on the project in June, "but it hasn't gotten a dime in ARRA funding," even though it was truly "shovel ready." Nekvasil said the lock system, funded by the federal government since 1855, is a national security asset as well as a critical asset for industry. "The country has been ignoring infrastructure for years, (but) shipping is not that visible to taxpayers, making it easy for Congress to ignore," he said. In contrast, highway funding gets much more notice by taxpayers and has advocates from every state.

#### The ARRA didn’t leave enough for maintenance

Envision Freight no date (Lisa Loftus-Otway, University of Texas at Austin Center for Transportation Research, “Waterways,” <http://www.envisionfreight.com/modes/default.aspx%3Fid=waterway.html>)

Waterway transportation is the silent workhorse of the U.S. freight economy. The massive amount of cargo moved everyday on U.S. waterways facilitates many types of economic linkages that would not otherwise be viable. Not all shippers in the United States have access to navigable waterways, but those who do have a highly attractive option of a low-cost and reliable means of transport. The Mississippi River system and its tributaries are by far the most important waterway freight corridors in the United States. As Figure 1 illustrates, the tonnage moved on some major river systems (e.g., Mississippi, Ohio) is equivalent to or greater than the volume moved on parallel road and rail corridors.

An element that is sometimes seen as a strength of the U.S. waterway system, but can also be a weakness, is its heavy dependency on the U.S. Army Corps of Engineers (USACE) to perform dredging and infrastructure activities. For several decades in the last century, the USACE made steady investment in expanding and maintaining the water network of the United States, even establishing barge service to states that had never sustained viable river ports in the past. However, funding for the USACE has become uneven and unpredictable, even as the needs of the waterway system have risen due to aging infrastructure. In fact, the recently-enacted blanket ban on Congressional member-directed spending is expected to have a substantial effect on the USACE funding model. While the recent American Recovery and Reinvestment Act provided a much needed surge of support for projects that had been long languishing on the planning books for lack of funding, this was only a temporary blip in an otherwise unsustainable course.

The consistency and reliability that attracts shippers to water transportation also tends to work against the mode in conveying urgency for investment. As an example, while being a significant threat to navigation, shoal area on a riverbed are far less visible than potholes on a road.

From a strategic standpoint, major support for the inland waterway system is relatively dispersed. Waterways generally cater to fewer commodity types than either truck or rail and, thus, have a narrower band of shipper advocates. Furthermore, because waterways facilitate distant trading relationships that may stretch from Minnesota to New Orleans, for example, waterway advocates tend to be rural and dispersed throughout the country, as opposed to being concentrated within a few heavily populated areas that would allow them to more readily pool their outreach efforts.

#### Out of the $390 billion needed, ARRA provided only $3 billion for the country

Bachtall, 11 (July 19, 2011, John, CPUSA Illinois organizer and a member of its National Board, “Beach Closings on the Rise,” http://peoplesworld.org/warning-beach-closings-on-the-rise/)

It is estimated that a downpour of 1.5 inches on Chicago causes storm water runoff into Lake Michigan and carries with it all sorts of garbage, E-coli, pollution, bacteria and contaminants. This runoff mixes with regular sewage and overwhelms the current systems, causing discharges into the lake, including that of raw sewage.

With increasing extreme weather events, these kinds of discharges are likely to become more frequent.

But there is some good news: the Environmental Protection Agency has begun a major overhaul of the Clean Water Act with the aim of imposing stricter regulations for how urban and suburban water deal with runoff into lakes and waterways.

The American Recovery and Reinvestment Act of 2009 also specifically directed funding to what are called "green infrastructure techniques," that allow for innovative natural retention and cleansing of storm runoff.

The bad news is it's not nearly enough.

The NRDC goes on to say, "This vexing issue is not a unique situation in the region and will require significant investment to fix." Needless to say, such investment would create thousands of jobs.

The Illinois section of the American Society of Civil Engineers says Illinois's aging wastewater treatment system dumps billions of gallons of untreated sewage into surface waters each year. The EPA estimated in 2009 the US must spend $390 billion over next 20 years to upgrade the nation's wastewater management systems. Illinois would need to spend $13.5 billion.

An additional $13.4 billion is needed over the next 20 years to upgrade Illinois's drinking water treatment facilities and bring them up to national standards. It is estimated $20-30 billion is needed yearly to upgrade the nation's water treatment facilities, but only $3 billion was allocated for the entire country last year. This included $2 billion from the American Recovery and Reinvestment Act.

It is clear the devastating cuts to domestic spending and the obstruction to increase spending on the nation's vital infrastructure needs by the Republican right wing and tea party zealots in Congress means ongoing and deepening crisis for the nation's beaches, lakes, rivers, and coastal areas. Without a plan to tax the rich and redirect resources away from wasteful military spending, the quality of life for the American people will continue to decline.

## Economy Advantage Extensions

### --- XT: Waterway Traffic Will Increase

#### Growth in waterway traffic could increase for several reasons

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Future Demands for Inland Commercial Navigation - A Summary

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

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

#### Demand for inland barge support will be inevitable --- key to transport of several commodities

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Bulk Commodities, Manufactured Goods, and Future Waterway Traffic Demands

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

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

### --- XT: Waterways Key to Freight / Competitiveness / Emergency Preparedness

#### Inland waterway investment is key to future freight movement --- critical to competitiveness, environment and emergency preparedness

SCDigest 11 (April 6, 2011, SCDigest Editorial Staff, <http://www.scdigest.com/ontarget/11-04-06-3.php?cid=4407>)

The US Maritime and Department of Trans. both agree on This month, the US Maritime Administration, an arm of the US Department of Transportation, issued a report to Congress calling for investment in inland waterways for general freight movement as part of the answer to what it says will be real problems with congestion and other issues on the nation's highways over the coming years. "It has become increasingly evident that the current system of freight transportation in the United States will be hard-pressed to meet the nation‘s future transportation needs with regard to maintaining national economic competitiveness, environmental sustainability, public safety, and emergency preparedness," the report says, noting that freight tonnage of all types, including exports, imports, and domestic shipments, is expected to grow 73% by 2035 from 2008 levels. SCDigest Says: The key question remains unclear: If we build it, will shippers come?. Inland waterways are not always "inland," as they include rivers, bays, and channels, and many thousands of additional miles on the Great Lakes Saint Lawrence Seaway System and deep sea routes. All told, there are some 25,000 miles of such waterways that could be used for freight transportation, and the report makes the common sense but nevertheless interesting observation that many of the US' most important highway systems parallel these waterways, and that a significant portion of the country's population resides alongside these water routes. Of course, in the past these waterways were the primary route for the transportation of goods. A lot of freight still moves on these waterway, about one billion tons per year, mostly bulk cargo says as grains or ore. That billion tons represented 13% of the nation‘s ton-miles of domestic freight in 2007 – down from more than 26 % as recently as 1965. That trend needs to be reversed, the report says, as "Traffic congestion will almost certainly worsen significantly if the reliance on road and rail is not reduced." It also notes that the use of trucking for about two-thirds of the total tonnage moved creates an environmental impact versus the more environmentally friendly rail and water modes, and that it contributes to the US' dependence on foreign oil. The report notes that the current transportation patterns in the US largely reflect market forces. That would be fine, it says, if the costs for different modes was efficiently allocated and priced. But echoing a theme in another report a few weeks from the GAO to Congress, the report suggests trucking may not be paying the full societal costs associated with that mode. (See GAO Tells Congress Freight Carriers, especially Trucking, are not Paying True Costs of Moving Goods.) Better understanding the total benefits of inland waterways should push more freight to that mode versus trucking, it says. In recent years, the US Congress has passed some legislation that should spur development of the inland waterway system, but it appears to be a modest effort to date. For example, the Consolidated Appropriations Act of 2010 appropriates just $7 million in funds for a waterways grants program in Fiscal Year 2010. The Maritime Administration says it recognizes that the most critical factor for growth in freight movement on inland waterways is "contingent on a broad range of qualities, none more important than the ability to serve the needs of shippers for reliable, innovative, and cost-effective transportation." The report points to Europe to demonstrate that such a change can be accomplished. Driven by a transportation strategy and public and private investment, the Euro zone saw a significant increase in containers moved on its inland waterways and "short sea" routes in the early 2000s, the report says. Currently, 40% of total Euro zone freight, including bulk and container shipments, moves on these routes (compared to just 13% in the US). However, differences in geography and rail service capabilities need to be considered when comparing those numbers. Still, the fact that goods movement over waterways is increasing in Europe while declining in the US is worth analyzing.

### --- XT: Waterways Key to Economy

#### Failure of lock and dams will crush the economy --- no other quick or suitable replacement

Peabody, 12 – Major General, U.S. Army Corps of Engineers (4/18/2012, John Peabody, “HOW RELIABILITY OF THE INLAND WATERWAY SYSTEM IMPACTS ECONOMIC COMPETITIVENESS”, <http://transportation.house.gov/news/PRArticle.aspx?NewsID=1609>)

Americans can and should be proud to have the most extensive and one of the best performing and most reliable public works infrastructure in the world. But like everything built by man, infrastructure has limits to its useful life, and it requires constant maintenance and periodic renewal. These continuous investments are essential if we are to ensure the reliability of our infrastructure investments. Infrastructure must be properly maintained to ensure and extend its useful life. It must be periodically rehabilitated when it begins to wear out and deteriorate. When it is no longer viable to rehabilitate it or economical to maintain it, it must be recapitalized, repurposed, or removed, based on the return to the nation. Specifically with regard to inland waterways, the Corps has a portfolio of 221 locks with an average age of 60 years. They have performed well, but many of them are showing obvious signs of wear and tear. In a select few cases, the condition of a lock or dam has deteriorated to a point that catastrophic failure is a real possibility. In all such cases with which I am familiar, there is an active construction project to replace or remediate the project. Catastrophic failure of a lock or dam at a high-volume point along one of the major waterways would have significant economic consequences because other transportation modes generally lack the capacity to either quickly or fully accommodate the large volume of cargo moved on the inland waterways. Therefore, cost and congestion of other modes (mostly rail) could be greatly affected and some cargoes may be delayed for extended periods. For example, the Corps extended a planned 18 day closure at Greenup Locks in 2006 when extensive deterioration of the miter gates was discovered. This lengthy, unplanned delay cost shippers over $40 million and several utilities came within days of having to shut down due to exhausted supplies of coal. The Army Corps of Engineers is focused on maintaining the key features of our existing infrastructure to avoid such a catastrophic failure. We are also monitoring the system’s condition via periodic inspections, in order to identify and address any significant decline in its efficiency or reliability. Our increased monitoring efforts over the past decade illustrate that there has been a recent increase in the number of unscheduled lock outages and the Corps will continue its efforts to attack this trend. In particular, the Corps measures performance based on the total number per year of one-day and seven-day closures due to mechanical failures of main lock chambers on the high and moderate use inland waterways.

#### Inland waterways are key to delivering goods to manufacturers that is essential to economic growth --- a national focus is necessary

NAM, 12 (National association of Manufacturers, The National Association of Manufacturers, NAM, is the top manufacturing association in the United States “Inland Waterway Infrastructure” <http://www.nam.org/Issues/Infrastructure/Water-Infrastructure.aspx>) DG

**America’s inland waterways move approximately 20 percent of the coal for utility plants, 22 percent of domestic petroleum products and over 50 percent of the nation’s grain and oilseed. Manufacturers rely on our system of inland and coastal waterways to efficiently move freight. The viability of our nation’s waterway system is seriously challenged by aging locks and decades-old infrastructure. These problems result in major delays that significantly raise costs and hamper the ability of** manufacturers to grow their businesses and create jobs.The NAM supports funding inland waterways at levels authorized by Congress and believes a 20-year capital plan should guide future investments and improve project delivery. We also advocate new financing approaches and a strengthened partnership between waterway users and the Army Corps of Engineers. **A** national focus **on the nation’s inland waterway system will ensure the viability of the waterways as a cost-effective and efficient means of moving goods.**

#### Failure to modernize federal navigation channels creates bottlenecks regardless of port modernization- that crushes economic benefits

Ellis, 6-18-12, Aaron, American Association of Port Authorities “U.S. Seaports, Private-Sector Partners Plan to Invest $46 Billion By 2017 in Port Infrastructure Lack of parallel state & federal investment in intermodal connections hamper job creation, efficiency benefits,” http://www.aapa-ports.org/Press/PRdetail.cfm?itemnumber=18583, KHaze

While port authorities and their business partners are making major investments into port facilities, studies show the intermodal links—such as roads, bridges, tunnels and federal navigation channels—to access these facilities get scant attention by state and federal agencies responsible for their upkeep, resulting in traffic bottlenecks that increase product costs and hamper job growth. To help remedy these problems, AAPA continues to advocate for a national freight infrastructure strategy and for the U.S. Congress to quickly pass a reauthorized multi-year transportation bill that targets federal dollars toward economically strategic freight transportation infrastructure of national and regional significance. “Infrastructure investments in America’s ports and their intermodal connections – both on the land and waterside – are in our nation’s best interest because they provide opportunities to bolster our economic and employment recovery, help sustain long term prosperity, and pay annual dividends through the generation of more than $200 billion in federal, state and local tax revenue and more than $22 billion in Customs duties,” said Kurt Nagle, AAPA president and CEO. “From a jobs standpoint, America’s seaports support the employment of more than 13 million U.S. workers and create 15,000 domestic jobs for every $1 billion in manufactured goods that U.S. businesses export.” According to economist John C. Martin, Ph.D., president of Lancaster, Pa.-based Martin Associates, U.S. Bureau of Economic Analysis formulas show that investing $46 billion in infrastructure at U.S. ports creates more than 500,000 direct, indirect and induced domestic jobs, accounting for more than 1 billion person-hours of work. “Those are really significant job numbers,” emphasized Dr. Martin. “From a dollars-and-cents perspective, it’s hard to over-emphasize the value of investing in ports, particularly when you factor in how much these investments help lower the cost of imports and make our exports more competitive overseas.” Mr. Nagle added that, despite substantial investments by port authorities and their private-sector business partners, inadequate infrastructure connecting ports to landside transportation networks and water-side shipping lanes often creates bottlenecks, resulting in congestion, productivity losses and a global economic disadvantage for America. “These congestion issues and productivity losses have the potential to stymie America’s ability to compete internationally and to create and sustain jobs,” he said.

#### Waterways transportation saves billions each year

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Summarizing the Current Economic Value of Inland Waterway Commerce

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

### --- XT: Seaports are Key to Economy

#### Efficient and effective seaports are key to the economy

Nagle, 11 --- president and chief executive officer of the American Association of Port Authorities (December 2011, Kurt, Industry Today, “Association: American Association of Port Authorities; Port-Related Infrastructure Investments Can Reap Dividends,” vol. 14, no. 3, <http://www.industrytoday.com/article_view.asp?ArticleID=F370>, JMP)

It seems the United States willingly allows infrastructure to crumble as other countries – particularly the BRICs – bolster the physical support systems that foster economic growth. The American Association of Port Authorities is concerned over the state of America’s aged transportation infrastructure so it’s urging investments in both landside and waterside connections with ports.

The burning question on the mind of many US lawmakers, administration officials and others is how best to stimulate the economy and spur job creation. The answer lies in focusing scarce federal resources in areas that will have the greatest impact on economic growth, immediate and long-term job creation, national security, and our current and future competitiveness in the global economy. Enhancements in seaport-related infrastructure should be a high priority among the limited investment options.

For centuries, US seaports – and the connecting waterways – have served as a vital economic lifeline, bringing goods and services to people around the world and delivering prosperity to our nation. They facilitate trade and commerce, create jobs, secure our borders, support our military and serve as stewards of valuable coastal environmental resources.

Seaports are the primary gateway for overseas trade. They’re essential to economic security. As such, federal funding for infrastructure in and around ports pays dividends. Deep-draft coastal and Great Lakes ports are the nexus of critical transportation infrastructure that connects America’s exporters with markets overseas, and they provide access for imports of raw materials, components and consumer goods that are a key part of US manufacturing and help define our standard of living.

Investments in America’s port infrastructure and the intermodal connections that serve seaports – both land and waterside – foster prosperity and provide an opportunity to bolster the country’s economic and employment recovery.

### --- XT: Waterway Transportation Reduces Rail Costs

#### Effective barge transportation is necessary to contain cost escalation of rail shipment --- saves billions a year

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Competitive Influence for Railroad Freight Movements

Not everything that can move on the inland waterway system does so. However, there is overwhelming evidence that even when railroad carriers retain traffic that could move by barge, they do so only by competing with the available barge rate(s). Thus, the railroad prices observed as result of this navigation influence are typically referred to as "water-compelled" rail rates. Estimates across various regions where navigation is available suggest that these competitively enforced transportation rates yield shipper savings of several billion dollars annually. n6

There are a number of interesting aspects related to the competitive relationship between rail and barge. First, federal transportation policy is aimed at assuring effective competition among largely deregulated freight transportation providers. Thus, in an environment where railroad competition is a perennial concern, available navigation dampens the arguments of those who advocate renewed railroad rate oversight. Also, the degree to which railroads are sensitive to a water alternative provides a good gage of available railroad capacity. In the early post-deregulation period, when ample railroad capacity was available, rail carriers were very sensitive to available navigation in the prices they charged. However, as rail traffic continued to grow through the mid 1990s and railroad capacity became scarce, available rail rates became far less responsive to a barge alternative. n7

### --- XT: Waterways Key to Boost Exports

#### Waterway infrastructure improvements are key to boost exports of coal and grain to Asia

Independent Record, 12 (January 12, 2012, Independent Records, HelenaAir- Montana Daily News, “Efficient waterways key to exports,” <http://m.helenair.com/mobile/article_622a021e-3ced-11e1-9a56-001871e3ce6c.html>)

A major infrastructure project near the bottom of Central America could have major repercussions for Montana mining and agriculture — but only if the U.S. keeps pace with infrastructure investment of its own. This week our editorial board visited with a pair of officials from the Waterways Council, the Washington-based industry group that represents producers and shippers who depend on the country’s inland waterways and its system of rivers, canals, locks and dams. Much of that infrastructure has been forced into use long past its expected and efficient lifespan, the group says, and it’s gearing up to ask Congress for some major funding over the next two decades to replace and/or improve a number of decaying locks and dams that are causing, well, logjams in the system. So how does Central America factor into the discussion? In coming years the Panama Canal will be greatly expanded, allowing for more and larger ship traffic. Volume through the canal is expected to nearly double by 2025. That increase will make New Orleans and other Gulf/Atlantic ports more economical for shippers to and from the Pacific Rim — whose countries happen to be some of the largest consumers of Montana grain and coal. But making it easier to get Montana’s goods to the Pacific isn’t worth much if it’s not made easier to get those goods to the coasts in the first place. Improving shipping efficiency on the Mississippi River will make for a new path to market for Montana raw materials. And that’s where the Waterways Council comes in, with its efforts to improve the inland nautical infrastructure. One 15-barge tow can move as much material as 216 rail cars, or 1,050 semi tractor-trailers, the council says, and the industry’s claim of being able to move a ton of freight 576 miles on a gallon of fuel makes it more efficient than rail or road. Those modes are absolutely necessary too, but without barge traffic, our railroads and highways would be overwhelmed with the additional demand. The council says an annual appropriation of $380 million from Congress, coupled with improvements in the way the Army Corps of Engineers gets projects done, will allow 20 major jobs to be completed within the next 20 years — versus the six that stand to be finished under the status quo. Shippers are putting their money on the line as well. They already pay a tax of 20 cents per gallon of diesel into a trust fund that pays for half of each project, and they’re willing to pay another 6 to 9 cents more per gallon, although that self-tax notion isn’t gaining traction with the no-new-tax crowd in Washington. Congress — i.e., the American people — typically spends billions a year on highway projects, and railroads too were heavily funded by the public. The country showed great foresight in building its system of locks and dams on many of our major rivers — but that investing was done close to a century ago, and the system needs repair. We don’t know whether $380 million a year is the right number, but we do urge Congress to do all it can to improve the efficiency of the nation’s interior shipping channels. The ability to grow our country’s exports depends upon it.

#### Federal sea-lanes must be deepened to allow increased trade

Nagle, 3-7-12, Kurt J., President and CEO of the American Association of Port Authorities, “Before The United States House of Representatives Appropriations Committee Energy and Water Development, and Related Agencies Subcommittee,” http://aapa.files.cms-plus.com/PDFs/EWTestimony%20Mar2012%20Final.pdf, KHaze

Ports are dynamic, vibrant centers of trade and commerce, but what is most important to understand is that seaports rely on partnerships. Seaports invest more than $8 billion every year to maintain and improve their infrastructure. In recent years, however, this commitment has not been adequately matched by the federal government. Federal funding for dredging federal navigation channels has slowed and decreased, especially for new construction. Further, maintenance dredging is sorely underfunded, despite a more than $6 billion (and growing) surplus in the Harbor Maintenance Trust Fund. As we look to the future, we do know that there are challenges and opportunities. As we recover from this economic downturn, we must make investments today to address the trade realities of the future. Here are some the challenges that cause us to ask: Are we ready? Ship sizes continue to get larger, requiring on-going modernization of ports and federal navigation channels, even for ports that will not require 50 feet of depth. Canada and Mexico are making investments which could result in losses of maritime jobs in the U.S. as cargo enters the U.S. through these countries. We have already seen this job loss on the West Coast. Can Likewise, Panama is investing to meet these new realities, with the Panama Canal expansion due to be completed in 2014. Seaports have been making investments in the billions, but federal funding has been slow to match these investments. The U.S. seeks to double exports; however countries like Brazil and Chile, who compete against the U.S. in terms of agricultural exports, are making investments that could make their exports more competitive. New trade agreements with Korea, Panama and Colombia have been approved, with other trade agreements under negotiations which should result in increased exports and imports through ports. In addition to these near-term challenges, we know that the U.S. population is forecast to grow by 100 million – a 30 percent increase – before the middle of the 21 st century. And many of the goods used by this population will flow through seaports So are we ready? The work of this subcommittee will play a large part in responding to that question. While ports are planning for the future, the federal government has not kept pace with the industry or our international competitors. The federal government has a unique Constitutional responsibility to maintain and improve the infrastructure that enables the flow of commerce, and much of that infrastructure in and around seaports have been neglected for too long, particularly the capacity of the federal channels which affects the ports’ ability to move cargo efficiently into and out of the U.S. This hurts U.S. business, hurts U.S. workers and hurts our national economy. We must realize greater transportation savings to move in a positive economic direction. That means dredging to maintain existing federal channels and dredging to deepen to more effective channel dimensions where it makes economic sense. Port deepening projects take decades to plan and build and we cannot wait. Federal investments in seaports are an essential and effective utilization of limited resources, paying dividends through increased trade and commerce, long-term job creation, secure borders, military support, environmental stewardship, and more than $200 billion in federal, state and local tax revenue. The federal government must make funding for dredging a higher priority

#### Keeping transportation costs low is key to accelerate the growth of international commerce

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Continued Growth in the Domestic Importance of Global Trade

As a young economist studying at the University of Tennessee, I recall a time when the percentage of US GDP tied to international trade was less than 10 percent. The latest data suggest a corresponding figure for 2010 of approximately 30 percent and the share of US economic activity tied to global markets is projected to reach as high as 50 percent by the current century's midpoint. A number in my profession have eloquently recounted the sequence of events that is producing the steady growth in international commerce. However, virtually every author includes substantial reductions in global transportation costs as a key factor. n13

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

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

To some extent, these underlying factors have already begun to change. Traditional West Coast-inclusive container movements will remain important, but ongoing improvements to the Panama Canal have lead to generally accepted predictions that future container traffic growth will favor East Coast and Gulf Coast ports. Moreover, a significant share of this growth may involve north-south traffic between US Gulf coast ports, interior US locations and origins and destinations in both Canada and Mexico. n14 Also, the excess rail network capacity evident in the 1980s and early 1990s has largely evaporated. US Class I railroads continue to add intermodal capacity as fast as available financing will allow, but there is concern that a rebounding economy and resulting resumption of intermodal traffic growth will absorb nearly all newly-created capacity within a short period of time.

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

### --- XT: Exports Key to the Economy

#### Exports to Asia are key to preventing next economic downturn

Lombardi 6/13/12 --- Graduate Business School, Heriot-Watt University, Edinburgh, Scotland (Michael, “U.S. Exports to Europe and China Collapsing,” http://www.profitconfidential.com/michaels-personal-notes/u-s-exports-to-europe-and-china-collapsing/)

How wrong they were…

Many had said the crisis in the eurozone would not create an [economic slowdown](http://www.profitconfidential.com/economic-slowdown/) in the U.S. economy. However, in April, U.S. exports to the eurozone fell 11.1% from last year (source: Reuters, June 8, 2012). In 2011, the eurozone was the second largest export market for the U.S.

Couple the U.S.’s big drop in exports to the eurozone with the fact [China](http://www.profitconfidential.com/china/) is experiencing its own economic slowdown because of the eurozone, which is affecting our exports to China, and our exports get a double-whammy hit.

U.S. exports to China fell 14% in April when compared to last year. This statistic is a big deal, because, over the last three years, the only bright side to U.S. GDP growth—and what helped counteract the economic slowdown—was the fact that U.S. exports picked up overseas…and a lot of that was due to Asia.

Where does that leave U.S. GDP growth now?

As we started screaming early this year, the financial crisis in the eurozone will have a huge impact on the U.S. economic slowdown.

With fewer exports and weak economic numbers being released here in the U.S., imports to the U.S. fell 1.7% in April from last April’s level. If the U.S. is taking in fewer imports, we see this is a direct reflection of the economic slowdown here in the U.S.

Capital goods and industrial supplies and materials were the areas that were impacted the most by the decline in U.S. April imports. As I reported earlier, the U.S. durable goods numbers for April were also very weak…bringing the economic slowdown argument here in the U.S. full circle.

What is more troubling about the strong decline in capital goods and industrial supplies and materials is that these areas are what drive capital investment. And capital investment is what drives job creation and economic growth.

The news gets worse. Wholesale inventories rose more than expected in April, hitting a record $483.5 billion in April. Record inventory on the shelves means fewer sales. Fewer sales mean decreased [consumer spending](http://www.profitconfidential.com/consumer-spending/) and more proof of an economic slowdown.

Increased U.S. exports to China would have been nice to counteract our domestic slowdown, but the eurozone created an economic slowdown in China.

The chances of the U.S. falling back into recession this year are increasing dramatically each passing day. (See: [The Inevitable U.S. Recession: Part II Starts](http://www.profitconfidential.com/economic-analysis/the-inevitable-u-s-recession-part-ii-starts/).)

#### Exports to China are key to jobs and growth – Clean coal export to china increasing

The White House, 11 (“U.S.-China Commercial Relations” [http://www.ustr.gov/about-us/press-office/fact-sheets/2011/us-china-commercial-relations](http://www.ustr.gov/about-us/press-office/fact-sheets/2011/us-china-commercial-relations0)) DG

China is a key market for U.S. exports. Those exports are generating jobs in every corner of the United States and across every major sector. These involve some of our country’s largest companies, but also an increasing number of small and medium-sized enterprises. In preparation for this visit, several large purchases have been approved including for 200 Boeing airplanes valued at $19 billion. In addition, the Chinese government has indicated that its companies signed 70 contracts for $25 billion in U.S. exports from 12 states. These included sectors ranging from auto parts to agriculture, machinery to chemicals. In addition, 11 investment contracts were signed worth $3.24 billion. Additional, transactions were announced or showcased, exceeding $13.1 billion in total value with approximately $987.8 million in U.S. export content. These deals worth over $45 billion in increased exports will help support an estimated 235,000 jobs in the United States. These cross-border collaborations, both public and private, underpin the expanding U.S.-China commercial partnership, contributing to economic growth and development in both countries. A number of these transactions highlight the increased collaboration in such areas as clean energy and green technologies. **Examples** of some of the deals associated with this visit **include: Boeing Airplane Sales: China's agreement to approve airline contracts for 200 orders covers aircraft to be delivered over a three-year period**, 2011-2013. The approval, the final step in a $19B package of aircraft, will help Boeing maintain and expand its market share in the world's fastest growing commercial aircraft market. Including 737s and 777s, **the agreement help supports more than 100,000 American jobs**, including those in Boeing and its suppliers throughout the U.S. General Electric--China Ministry of Railways (MOR) Letter of Intent on High Speed Rail Technology Transfer and Purchasing Rolling Stock and Signaling Equipment: The Chinese Ministry of Rail (MOR) and General Electric (GE) have signed a letter of intent expanding upon an existing strategic partnership to bring Chinese high-speed rail technology to the United States. GE and China South Locomotive & Rolling Stock Corporation Limited (CSR) plan to form a joint venture in the United States to manufacture high- and medium-speed electric multiple unit trains. GE estimates that new business generated by the HSR JV could support up to 3,500 jobs in the United States. GE also will agree to manufacture locomotives for China and will provide components for 500 or more locomotives. The LOI will support efforts to capture new business opportunities valued at up to $1.4 billion with an estimated $360 million in U.S. export content, supporting up to 200 GE Transportation jobs. Navistar Inc.-- JAC Truck and Engine Joint Ventures: Navistar has announced central Chinese government approval for a $400 million, 50-50 joint venture with the state-owned Anhui Jianghuai Automobile Company (JAC). Navistar will export services and parts to be used in the manufacture of diesel engines and commercial trucks. The JV will develop, manufacture, market, and sell heavy duty trucks and light to medium/heavy duty engines, primarily in China. The joint venture will be based in Hefei City, Anhui Province. Once production begins, Navistar anticipates that many components will be sourced from the United States. **Direct U.S. exports during the first year of the joint venture are estimated at $15 million, but are forecast to grow significantly over the next five years as production increases.** Navistar estimates the net employment benefit of the joint ventures to the United States economy at 200 jobs in the United States, mainly in the field of engineering and other services. General Electric-Shenhua Gasification Joint Venture: GE and China Shenhua Energy Company Limited (Beijing, China) have formed a joint venture company in order to combine GE’s expertise in gasification and cleaner power generation technologies with Shenhua’s expertise in building and operating gasification and power generation facilities. **The joint venture will seek to advance cleaner coal technology solutions for industrial chemicals, fuels, and power generation. GE estimates approximately $150 million in U.S. exports over the first five years of the joint venture, mainly related to technology licensing, engineering, and R&D support.** Additionally, the joint venture has potential to generate $1.5 to 2.5 billion in U.S. exports over the long term. General Electric-Huadian Joint Collaboration Agreement on Decentralized Energy Combined Heat and Power Projects: General Electric is signing a Joint Collaboration Agreement with China Huadian Engineering Co., Ltd for cooperation on Decentralized Energy Combined Heat and Power (DECHP). This agreement will be a binding agreement to develop, market, and sell DECHP generators, an efficient alternative to coal-fired power plants. GE estimates that at least 50 DECHP gas turbine generator sets will be sold in China in the next ten years, resulting in $500 million in sales and $350 million in U.S. export content, supporting over 200 jobs in the United States. Cummins Hybrid Bus Development and Commercialization: Cummins, Inc (Cummins; Columbus, Indiana) and Zhengzhou Yutong Bus Compay, (Yutong; Zhengzhou, China) have negotiated an agreement to jointly develop and commercialize hybrid power systems for the Chinese bus market. Cummins is presently a supplier to Yutong, and hopes to increase its penetration of the Chinese market by jointly developing and producing a hybrid bus primarily for the Chinese market. Cummins estimates a potential for over $500 million in annual sales. This will be the first partnership of its kind involving Cummins hybrid power systems and a major vehicle manufacturer. Cummins claims that up to 500 jobs could be created in the U.S. related to production, sales, and service of hybrid systems for commercial vehicles for the U.S. and Chinese markets. Cummins also expects an annual savings of 21,000 metric tons of CO2 emissions. General Electric-AVIC Avionics Joint Venture Agreement: GE and AVIC will sign an agreement to form a new joint venture company to market globally advanced avionics systems for future commercial aircraft. The GE-AVIC joint venture is expected to support 300 high-tech jobs in Michigan and Florida. UPC Management Wind Power Agreements: UPC Management, LLC (UPC) is a Miami, Florida based wind power developer, having interests in 24 sites in 12 Chinese provinces. The company has negotiated a Strategic Framework Agreement (SFA) with the China Guo Dian Corporation (CGD), which develops, builds, operates, and distributes electricity and heat. Under the SFA, CGD and UPC will form ventures leading to the establishment of wind power generation joint ventures. The total value of the SFA investments could reach $1.5 billion, of which UPC will invest up to $735 million. Honeywell—Haier Group Memorandum of Understanding for Global Strategic Cooperation: Honeywell International Inc., headquartered in Morris Township, New Jersey (Honeywell), entered into an agreement with Haier Group (Haier) to collaborate on the development and promotion of low-emission, high energy-efficiency products and solutions. Honeywell estimates the total value of the five-year MOU at $53 million per annum, or $265 million and U.S. export content at $42 million per annum, or $210 million. LP Amina MOU with Beijing Energy: LP Amina, environmental engineering company headquartered in Novi, Michigan, signed a Memorandum of Understanding (MOU) with Beijing Energy to sell de-nitrification engineering, equipment and other potential environmental and boiler efficiency improvement solutions. This MOU creates a framework for potential long-term cooperation to reduce emissions and improve efficiency across Beijing Energy's power plant facilities in China. LanzaTech--Bao Steel Joint Venture to Build an Ethanol Plant: LanzaTech Inc., a wholly-owned subsidiary of LanzaTech New Zealand, headquartered in Roselle, Illinois (LanzaTech), and Bao Steel Group Corporation (Bao Steel), will conclude a Contractual Joint Venture Contract for the construction and operation of a demonstration ethanol production facility in China. The facility will utilize waste flue gas from Bao Steel’s Shanghai steel mill as feed stock and LanzaTech proprietary gas fermentation technology to produce ethanol. LanzaTech-- Wuhan Kaidi General Research Institute of Engineering and Technology Company Limited Ethanol Production Letter of Intent: LanzaTech Inc., a wholly-owned subsidiary of LanzaTech New Zealand, headquartered in Roselle, Illinois (LanzaTech), and Wuhan Kaidi General Research Institute of Engineering and Technology Company Limited (Wuhan), will conclude a Letter of Intent for the construction and operation of a demonstration ethanol production facility in China. The facility will utilize Wuhan supplied waste biomass synthesis gas as feed stock and LanzaTech proprietary gas fermentation technology to produce ethanol. MVP RV -- Winston Battery Limited Recreational Vehicle MOU: MVP RV (MVP; Riverside, California) is a privately-held U.S. company that produces self-powered and trailer Recreational Vehicles. The company has an existing distributor relationship with privately-held Winston Battery Limited (Winston; Shenzhen, China). Winston, through the proposed MOU, plans a major capital injection into MVP RV in the amount of $310 million to promote motor home exports to China. Additionally, Winston Battery Limited will provide capital for the development of all-electric recreation vehicles and charging systems. The goal is to export over 10,000 Class A (self-powered, bus-sized) motor homes and 20,000 Class C (self-powered, van-sized) motor homes to China in the next 3-4 years. MPV estimates the value of these exports to be over $5 billion. The MOU specifies the intention to export vehicles to China through Winston and the eventual incorporation of an all-electric powertrain to future vehicles. Caterpillar Inc. – Caterpillar China Investment Co. Ltd. Business Agreement: Caterpillar (Peoria, Illinois) and Caterpillar China Investment Co. Ltd. – a wholly owned subsidiary of Caterpillar – will sign an agreement under which $1.4 billion in U.S.-manufactured mining and construction equipment, and diesel and gas turbine engines will be shipped to China. The intra-company sale will support approximately 7,567 jobs in the United States. LP Amina MOU with Yixing Union Congregation Co. Ltd: LP Amina, a multinational environmental engineering company headquartered in Novi, Michigan, signed a Memorandum of Understanding (MOU) with Yi Xing Union Congregation Co., Ltd, a Chinese energy and chemical company. The MOU will formalize plans in advance of an expected contract signing, which will establish a collaborative pilot project to demonstrate LP Amina’s patent-pending Coal to Chemicals System. This innovative technology will couple chemical production with power generation and enable the use of thermal energy generated from the chemical production for additional efficiency power generation. This process would also reduce emissions by nearly 90% compared to the conventional production process in use today. Once commercialized, LP Amina estimates that this technology could be deployed in the United States creating up to 500 jobs. Optimax Systems, Inc -- Shanghai Micro-Electronics Equipment Co., Ltd. Precision Optics Sale: Optimax Systems, Inc. (Ontario, New York), a manufacturer of high-precision optical components, has signed a new agreement for supplying precision optics to Shanghai-based Shanghai Micro-Electronics Equipment Co., Ltd. (SMEE) for incorporation into SMEE's advanced lithography equipment. SMEE is rapidly expanding its presence in the semi-conductor, MEMS and flat panel display manufacturing industries in China and throughout Asia. By combining their innovative technologies, SMEE and Optimax can further expand potential for next-generation lithography in the Chinese market. Optimax plans a $4 million expansion of its ultra-precision manufacturing capacity to support this new agreement with SMEE, which will include adding 50 new manufacturing jobs for high-precision optical technicians at its Ontario, New York facilities. This follows on a $2 million facility expansion already completed to support business done with SMEE to date. Erickson Air-Crane Heavy Lift Helicopter Sale: Erickson Air-Crane (Portland, Oregon) announces the pending sale of five S-64 (commercial) helicopter aircraft to China Taicang Aircrane Company Ltd. The transaction has nearly 100% U.S. export content. While the detailed commercial terms of this agreement are presently under negotiation, the companies have recently executed an Acceptance of Proposal that provides for the five aircraft to be delivered over a two year period beginning with the delivery of the first aircraft by February 28, 2011. Celanese -- Wison Group Memorandum of Understanding for Ethanol Production: Celanese Far East Co., a subsidiary of Celanese Corporation headquartered in Dallas, Texas (Celanese), and Wison Group Holding Limited (Wison), will conclude a Memorandum of Understanding for the construction and operation of an industrial ethanol production facility in China. **Wison plans to invest in a coal gasification unit based on clean coal technology to produce synthesis gas per Celanese specs, and Celanese plans to invest approximately $650 million in an Ethanol Complex using the output from Wison as feed stock, and Celanese proprietary technology, to produce ethanol for industrial use, and potentially for fuel ethanol.** This transaction is valued at approximately $815 million, with $50-80 million in U.S. export content. Celanese estimates project implementation will support an estimated 200-250 U.S. jobs. Westinghouse Electric Company -- China Baotou Nuclear Fuel (CBNF) Fuel Fabrication Agreement: Westinghouse Electric Company concluded a contract to design, manufacture and install fuel fabrication equipment for use by CBNF to manufacture fuel for the Westinghouse AP-1000 nuclear power plants currently under construction at sites across China. Westinghouse Electric Company-- China State Nuclear Power Technology Corporation (SNPTC) Nuclear Cooperation Agreement: Westinghouse and SNPTC announced a two-year extension of a nuclear cooperation agreement that focuses on continued deployment of the Westinghouse AP-1000 nuclear power plant in China as well as service and maintenance, technology development and strategic investment. The agreement extends the commitment of both Westinghouse and SNPTC to explore future cooperation in areas of strategic interest including large passive plant development; follow-on AP-1000 cooperation; services and research and development. Boeing, Honeywell, and Pratt & Whitney -Air China Aviation Biofuels MOU: During President Hu’s visit, the Boeing Company and Air China announced an agreement to initiate planning of an inaugural international flight using sustainable aviation biofuels. Furthermore, Boeing, Honeywell, and Pratt & Whitney announced an agreement on the details of the technical support they will offer to Air China in the planning, execution, and analysis of the inaugural biofuel flight. This demonstrates the strong link between the U.S. and China Sustainable Aviation Biofuels industries and aviation’s significant contribution to trade between the U.S. and China. Boeing, Honeywell, and Pratt & Whitney will also announce an agreement on the details of the technical support they will offer to Air China in the planning, execution, and analysis of the airline’s inaugural biofuel flight. This demonstrates the strong link between the U.S. and China Sustainable Aviation Biofuels industries and aviation’s significant contribution to trade between the U.S. and China. This agreement will highlight the future of the aviation industry, which contributes an estimated $4 trillion to the global economy annually. AES-- Chongqing Energy Investment Group Memorandum of Comprehensive Cooperation: **AES China, a subsidiary of AES Corporation headquartered in Arlington, Virginia, entered into an agreement with Chongqing Energy Investment Group Ltd (Chongqing) to jointly develop, construct and operate a series of renewable energy projects, including hydroelectric, wind, ventilation air methane, clean coal and low carbon technology projects.** This transaction is valued at approximately $300 million. Alcoa and the China Power Investment Corporation MOU: Alcoa (New York, New York) and the China Power Investment Corporation (CPI) announced a Memorandum of Understanding to collaborate on a broad range of aluminum and energy projects representing an estimated $7.5 billion in investment. The two companies will intensify their collaboration in China on developing clean energy projects and outside China on a broad range of initiatives. The total employment impact to the U.S. economy of this transaction is not known at this time; however, Alcoa estimates that this undertaking will improve the global competitiveness of the company and support jobs in the United States. Ener1 – Wanxiang Battery Joint Venture: Ener1, Inc. (New York, New York), a manufacturer of Lithium Ion battery systems for electric vehicles and Wanxiang Group, a leading Chinese auto components manufacturer, seek to enter into an MOU to jointly produce advanced battery systems for electric cars and power utilities in Asian markets. This MOU builds upon a binding May 2010 letter of intent and seeks to establish a China-based joint venture to produce lithium-ion cells, modules and battery packs for use in electric vehicles and power grid energy storage applications for the Chinese market and also export to the markets of Taiwan, Hong Kong and Japan. Ener1 executives credit U.S. DOE match-making and financial assistance with the company’s success in gaining access to the Chinese market. The company expects that participation in this joint venture would be part of a larger strategy to develop manufacturing and design capacity in the United States, supporting up to 1,500 jobs in Indiana. Emberclear and CERI Licensing Agreement: EmberClear (Calgary, Alberta Canada), with offices in Houston, TX, signed an exclusive license with Clean Energy Research Institute (CERI), a clean energy technology subsidiary of Huaneng Power Group of China, to become a global licensing and development partner. EmberClear will provide engineering and project development services for economic and efficient clean fossil energy solutions and scientific consulting services in international projects. EmberClear and CERI highlighted the first project of this partnership, a 270 Megawatt IGCC power plant in Pennsylvania that recently received all relevant permits. Peabody Energy MOU with China Huaneng Group: Peabody Energy, headquartered in St. Louis, Missouri, and Calera Corporation, headquartered in Los Gatos, California, **signed a Memorandum of Understanding with China Huaneng Group to develop a supercritical clean coal electricity generation project with carbon capture** in the Xilinguole League Prefecture of China’s Inner Mongolia Autonomous Region. **The project would include a large surface coal mine using best practices for safety and environmental excellence, produce** clean power, **and convert flue gas carbon dioxide into cement-like building materials.** Peabody Energy and Yankuang Xinjiang Nenghua Company Limited MOU: Peabody Energy, headquartered in St. Louis, Missouri and Yankuang Xinjiang Nenghua Company Limited, a wholly owned subsidiary of Yankuang Group Company Limited, signed a Memorandum of Understanding to jointly develop an integrated clean energy center in China’s Xinjiang Autonomous Region. **The center will include construction of an ultra supercritical clean coal electricity generation project and coal-to-natural gas conversion facility fueled by a new open-cut coal mine.** AEP – China Huaneng: American Electric Power Company, headquartered in Columbus, Ohio, signed cooperation agreements with three Chinese entities, China Huaneng, State Grid Corporation of China and China National Offshore Oil Corporation. The cooperation agreement with China Huaneng, China’s largest power company, relates to evaluating a Carbon Capture and Storage (CCS) technology developed by China Huaneng and improving the efficiency of coal-fired power plants. The overall goal is to advance commercialization of CCS in both the U.S. and China. AEP – State Grid Corporation of China: American Electric Power Company, headquartered in Columbus, Ohio, signed cooperation agreements with three Chinese entities, China Huaneng, State Grid Corporation of China and China National Offshore Oil Corporation. The cooperation agreement with China National Offshore Oil Corporation (CNOOC), the largest offshore oil exploration and production company in China, contains CNOOC investment in the AEP's Mountaineer Plant commercial-scale carbon capture and underground storage project, and plans to explore opportunities for the utilization of captured carbon dioxide for enhanced oil and natural gas recovery in the United States. This is expected to benefit the development of CCS technology in the United States and China. Duke Energy Corporation--ENN Group Co. Ltd. Eco-City MOU: ENN Group Co. Ltd. and Duke Energy Corporation have concluded a memorandum of understanding (MOU) outlining the terms and scope of cooperation in the development and utilization of clean energy solutions for the Eco-City, a demonstration project intended to showcase clean coal, electric vehicles and energy efficient building technologies in Langfang, China. EPIC Clean Technologies--Tengzhou Huawen Paper Co. Paper Joint Venture Agreement: EPIC Clean Technologies Corporation, headquartered in Houston, Texas, and Tengzhou Huawen Paper Co. (THP), will conclude a Contractual Joint Venture Agreement for the redevelopment of the THP paper mill. **The newly formed Joint Venture will assume ownership of the existing power plant and install a new clean coal gasification power plant to increase power and steam production, lower CO2 emissions by 35 percent, eliminate most other pollutants, and reduce coal consumption. The project includes a license agreement for use of EPIC gasification technology.**

### **--- XT: Coal Exports Internal Link**

#### **Interruption of inland waterways will disrupt efficient coal transportation and wreck electricity production**

Cassell, 12 (04/19/2012, BARRY CASSELL is Chief analyst, coal sector. Cassell has covered the coal industry for more than 23 years, most recently as editor of SNL Energy’s Coal Report. “Reliability of coal-fired power tied to deteriorating inland waterways” “Reliability of coal-fired power tied to deteriorating inland waterways” <http://generationhub.com/2012/04/19/reliability-of-coal-fired-power-tied-to-deteriorat>) DG

**The issue of deteriorating locks and other infrastructure on an inland waterway system that is vital to moves of tens of millions of tons of coal each year was the focus of an April 18 hearing of the House Committee on Transportation and Infrastructure’s Subcommittee on Water Resources and Environment. Major General John Peabody**, commander of the Mississippi Valley Division of the U.S. Army Corps of Engineers, said in his prepared remarks that **the Corps has a portfolio of 221 locks with an average age of 60 years.** They have performed well, but **many of them are showing signs of wear and tear.** In a select few cases, **the condition of a lock or dam has deteriorated to a point that catastrophic failure is a real possibility, he added.** In all such cases with which he is familiar, there is an active construction project to replace or remediate the project. “**Catastrophic failure of a lock or dam at a high-volume point along one of the major waterways would have significant economic consequences because other transportation modes generally lack the capacity to either quickly or fully accommodate the large volume of cargo moved on the inland waterways,”** Peabody added. “Therefore, cost and congestion of other modes (mostly rail) could be greatly affected and some cargoes may be delayed for extended periods. For example, **the Corps extended a planned 18 day closure at Greenup Locks in 2006 when extensive deterioration of the miter gates was discovered. This lengthy, unplanned delay cost shippers over $40 million and several utilities came within days of having to shut down due to exhausted supplies of coal.”** **The Corps’ increased monitoring efforts over the past decade illustrate that there has been a recent increase in the number of unscheduled lock outages and the Corps will continue its efforts to “attack” this trend,** Peabody said. In allocating funds within the civil works program, the Corps gives priority to the work that offers the greatest return to the nation in achieving economic, environmental, and public safety objectives. However, **current revenues to the Inland Waterways Trust Fund require the Corps to limit spending for inland waterways capital projects,** Peabody noted. In September 2011, as part of his jobs bill proposal, President Obama sent a legislative proposal to Congress to reform the laws governing the Inland Waterways Trust Fund. This would provide an additional source of financing for major new investments in the inland waterways to support economic growth. It includes a new user fee, which would supplement the revenue collected from the fuel tax, and would increase the total paid by commercial navigation users enough to meet their share of the costs of activities financed from the Inland Waterways Trust Fund, Peabody said. Martin Hettel, a senior manager for American Electric Power’s (NYSE: AEP) River Operations Division, testified at the hearing that rampant lock failures in recent years along the Ohio River, **with the failure rate only rising as lock repairs are delayed or cancelled, are an electric power reliability issue. AEP and other** utilities get much of their coal via barge**.** **And with more and more coal-fired power plants being shut due to U.S. Environmental Protection Agency regulations, that puts a lot of load on the remaining coal plants, which makes** a lock failure that deprives any of those surviving plants of coal a critical power reliability issue, Hettel noted. Subcommittee Chairman Bob Gibbs, R-Ohio, said in an April 18 statement: “**Letting the inland waterway system decline further would be an economic disaster to add to the Nation’s already significant fiscal problems. Having an inland waterways system that is a viable alternative will keep costs down among all modes of transport. If you take inland waterways out of the mix in terms of transportation options, costs go up and American products become less competitive in the global marketplace. And that means lost jobs.”** Robert Dolence, Vice President of Leonardo Technologies Inc. (LTI), testified that in work done by LTI, it has been forecasted that even with sustained low natural gas prices (maintaining less than $4/mmBTU natural gas cost levels for 50 plus years**), coal maintains a significant role in electric power generation.** “Based on the combined detailed modeling performed, LTI concludes **the Ohio River Navigation System is a vital component to ensuring safe, reliable, low cost, domestic energy – including electricity – to our country,”** he added.

#### **Coal is key to electric power generation**

National Research Council, 7 (“Coal: Research and Development to Support National Energy Policy” <http://www.nap.edu/openbook.php?record_id=11977&page=82>, Pg. 82) DG

With the electric power sector accounting for more than 90 percent of U.S. coal use ([Table 5.1](http://www.nap.edu/openbook.php?record_id=11977&page=81#p200136ee9960081001)), coal transport to the more than 600 coal-burning power plant sites in the nation is especially important. Of these plants, rail transportation serves approximately 58 percent, waterborne transportation serves 17 percent, trucks serve 10 percent, 12 percent are served by multiple modes of transportation (primarily rail and barge), and 3 percent are minemouth plants with conveyor systems (NCC, 2006). In 2004, more than 85 percent of coal shipments were delivered to consumers by either rail (684 million tons), truck (129 million tons), or water (98 million tons) (EIA, 2006g; see [Table 5.1](http://www.nap.edu/openbook.php?record_id=11977&page=81#p200136ee9960081001)). However, Energy Information Administration (EIA) statistics report only the method by which coal was delivered to its final destination and do not describe how many tons may have traveled by other means along the way—almost one-third of all coal delivered to power plants is subject to at least one transloading along the transportation chain (NCC, 2006). For example, the figure for waterborne **transport does not include coal that was transloaded to rail, truck, or other transport modes before final delivery, and the U.S. Army Corps of Engineers reported that 223 million tons of domestic coal and coke were carried by water at some point in the transport chain in 2004** (USACE, 2006).

### --- XT: Coal / Electricity Prices Internal Link

#### Declining water infrastructure will wreck coal markets and drives up costs

Buchsbaum, 12 – Associate Editor of Coal Age Magazine (2/2012, Lee, “LOCKED Out: Aging Locks and Dams Jeopardize Inland Waterways Is a catastrophic cascading systems failure about to occur along the Ohio River?” <http://www.uppermon.org/news/Other/CA-Locked_Out-Feb2012.html>)

LOCKED Out: Aging Locks and Dams Jeopardize Inland Waterways Is a catastrophic cascading systems failure about to occur along the Ohio River? Coal Age Magazine February 2012 By Lee Buchsbaum, Associate Editor and Photographer Endless foreign wars, endless Federal budget cuts and endless political debates are starting to take a collective toll on the health and viability of our nation’s crumbling infrastructure, once the envy of the world. While most taxpayers are familiar with the limitations of the nation’s highway system, far fewer understand the problems now commonplace along the U.S. inland waterways system. Traversed daily by thousands of barges and tows owned by dozens of operators, industry and government stakeholders are becoming increasingly frustrated as the locks and dams that comprise much of the waterways infrastructure continue to fail at accelerating rates. As funds dry up from the Federal level, it will be left to industry, labor and local governments to shore up the liquid arteries of commerce that bind this nation together. Unique among the network of rivers that make up the U.S. inland waterways, the Ohio River would be considered a major coal river. Hundreds of millions of tons of coal travel through the Ohio River’s many locks and dams annually going from mine to power plant, and increasingly from mine to export facility. As domestic utilities reduce the collective coal burn, now more than 10% of the combined steam and thermal coal produced in the U.S. is heading overseas. With coal traffic patterns changing as a result of this market shift, larger amounts of river-borne coal are seeking new outlets, especially as existing rail-served coal ports become clogged with other traffic. Complicating transit is the fact that many locks and dams on the Upper Mississippi and particularly the Ohio River are ancient, some over a century old, and quite a few are way past their design life. As each day passes, the threat of a significant or catastrophic lock or dam failure becomes more imminent. While America has so far dodged that bullet, the right bolt breaking lose at the wrong time in the wrong place could wreak havoc on coal markets. The Federal Government continues to invest funds in various river improvement projects. Tremendous amounts of money have been tied up for years in one of the biggest boondoggles in modern times: the Olmstead Lock and Dam on the lower Ohio. Initially budgeted at $775 million, projected costs have today climbed to more than $2.1 billion and there’s no end in sight. Moreover, according to the way in which money has been allocated and prioritized, under existing law, dozens of other projects are being held up while Olmstead is “finished.” Meanwhile, the inland waterways become more fragile. According to the Waterways Council, a Washington-based industry group, moving coal and other freight via barge through the nation’s river system is the most energy efficient mode of transportation. On average, barges move a ton of cargo 576 miles per 1 gallon of fuel. A rail car, by contrast, will move the same ton of cargo 413 miles per gallon. Trucks are the worst, averaging only 155 miles travel per that 1 gallon of fuel. One of the largest river shippers, American Electric Power (AEP) is able to do better: squeezing an average of over 642 miles traveled per gallon of fuel used. But in our increasingly carbon constrained and supposedly “greening” economy, America’s inland waterways are actually becoming less efficient and reliable. As Congress debates how much to fund the waterways through this winter, shippers wonder how the inevitable spring floods will affect them and their customers later this year. The Ohio: America’s Real Coal River In a presentation delivered at the Coal Handling & Storage conference, which was held during November in St. Louis, Keith Darling, president of AEP’s River Operations, discussed how fragile the Ohio River system’s lock and dam infrastructure has become. Headquartered in Chesterfield, Mo., AEP’s River Operations subsidiary is the second largest dry bulk barge company on the inland waterways transporting more than 71 million tons of commodities each year. Traversing almost all of the nation’s river systems, AEP moves about 32 million tons of coal annually into AEP power plants as well as another 3 million tons of limestone and urea, which is used in emission control systems, also traveling by barge. Throughout the nation’s heartland, the Ohio, Illinois, Green, Tennessee, and the Upper and Lower Mississippi rivers and other rivers carry millions of tons of cargo to hundreds of industrial facilities. While the Lower Mississippi does not have any locks and dams, some of the oldest in the nation are on the upper Mississippi. But, in terms of cargo, it’s really a grain river as is the Illinois. “If you really want to talk about a coal river, we’re talking about the Ohio,” Darling said. With almost 40 locks and dams throughout a system comprising both the Monongahela and Allegheny rivers as well as the Ohio River, Darling explained, more coal flows over these waters than any where else in the nation. For hundreds of miles from Pittsburgh, Pa., to Cairo, Ill., where it meets the Mississippi, the Ohio River valley is dotted by factories, chemical plants, power plants and other industrial facilities. Over the course of a year more than 200 million tons of cargo move through its locks and dams, and no cargo is more plentiful than coal. Lock Outages on the Ohio As the Inland River system ages, Darling likened the situation to a form of Russian roulette, pulling the trigger each time the system locks another tow, and hoping there’s no bullet in that chamber. Most of the dams’ “design life were exceeded 50 years ago and it’s heroic to keep those structures operating. As they get older and we don’t do proper maintenance and we don’t modernize them, their reliability has become challenged,” said Michael Toohey, president and CEO of the Waterways Council, the primary industry group associated with protecting that viability. As compiled by AEP and the Army Corps of Engineers, since 2000, more locks are closing for repair or maintenance every year. And as the system continues to fatigue, the amount of time locks are out for repairs grows each year as well. “Lock outages have increased three-fold in a 10-year period. Throughout 2009, there was a lock out somewhere on the Ohio River roughly 25% of the year,” said Darling. Over the next 20 years lock gate failures will continue steadily. “Lock gate failures will occur at increasing rates over the next couple decades. Indeed by the year 2020, the Corps predicts that all 40 lock gates on the Ohio will fail at some point in time. That’s the Corps’ prediction. And amazingly they’ve been about 100% at predicting lock failures,” Darling said. Those lock failures have major impacts to the traffic on the Ohio River. When a main chamber on the Ohio River fails, all traffic must use an auxiliary lock chamber instead. Generally the auxiliary chambers are only half the size of the main chambers, forcing barge lines to break tows in half and move a tow through in two or more pieces. “This adds time and it creates queues. Locks you typically drive up to and lock directly through, you’ll sit at for two, three, even four days while waiting for your turn to move through. And, time is money,” said Darling. The extra costs the shippers bear generally translate into higher costs per delivered ton and increased costs for ratepayers. All of this translates to higher costs for coal, which only prices it further out when compared to natural gas.

#### Loss of a single lock or dam will shut down entire traffic on the Monongahela River and cause a spike in electricity prices

Dolence, 12 --- Vice President of Leonardo Technologies (4/18/2012, Robert, Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing; "How Reliability of the Inland Waterway System Impacts Economic Competitiveness,” Lexis)

Mr. Chairman and Members of the Subcommittee:

Thank you for inviting me to speak to the Subcommittee today. I have submitted my entire statement for the record, but will keep my opening remarks brief. My name is Robert Dolence. I am Vice President and Principal of Leonardo Technologies, Inc. or LTI. LTI is a small, privately held business incorporated in the State of Ohio with headquarters in Bannock, Ohio, and offices in Montana, Pennsylvania, New Hampshire, New York, Virginia, and West Virginia. LTI is an energy and technology consulting firm focused on the safe, affordable, and environmentally acceptable production and use of energy. Our more than 100 professionals are involved in the fuel and energy cycles from production, upgrading, transporting, utilization of, and disposition of residual materials. Our f portfolio of expertise transcends a wide variety of fuels and fuel use technologies including, but not limited to, coal, natural gas, petroleum, biomass, biomass-coal co-firing, renewable energy (solar and wind), energy efficiency, traditional pulverized coal plants, advanced coal fired plants, coal gasification, biomass gasification, fuel cells, electric grid, and electric generation.

On a professional level, I have spent more than 30 years in the energy business. I am a registered professional mining engineer having spent most of my time working in the coal regions of Appalachia as a coal producer, as a federal regulator (Office of Surface Mining - OSM), state regulator (Deputy Secretary for Pennsylvania's Department of Environmental Protection), Research and Development (RandD) Program Manager (U.S. Department of Energy's National Energy Technology Laboratory - NETL), and management and environmental consultant

I was invited to speak today regarding a study LTI performed in 2011 for the U.S. Army Corps of Engineers, titled, "Measuring the Impact of Monongahela [River] Lock Closures on Forecasts of Utility Steam Coal Consumption, Sourcing and Transportation in the Ohio River Basin n1." In the 2011 study, LTI was asked to assess the likely impacts to the regional and national electric utility industries and the coal industry that provides fuel to those plants, resulting from a catastrophic failure of any one of the three lock-and-dam sets (#2, #3, or #4 below) on the lower portion of the Monongahela River closest to Pittsburgh, Pennsylvania. These dams were selected due to their annual historic coal traffic and vulnerability to failure; that is, current risk due to their age and condition.

Actual 2010 data was used "retrospectively" to model potential dam failure impacts. The work was performed in mid-2011 by LTI's Principal Investigator, Dr. Lloyd Kelly, using a proprietary energy modeling system, the Greenmont Energy Model (GEM[TM]) n2. The highlights of the work follow.

The Monongahela River is a nine-lock tributary of the Ohio River. The navigable portion of the Monongahela River extends 128 miles from Fairmont, West Virginia, to the confluence of the Allegheny and Monongahela Rivers where they form the Ohio River at Pittsburgh, Pennsylvania; a location commonly referred to as "Three Rivers." There are four coal-fired electric power plants on the Monongahela River. Eighty-nine percent (89%) of the river traffic is coal being shipped to these and other plants, as well as commercial, industrial and export markets. It is my understanding that the lowest three lock-and-dam sets closest to Pittsburgh are in the poorest state of repair and more susceptible to a catastrophic failure. After some discussion with representatives of the U.S. Army Corps of Engineers, it was decided to adopt the assumption that such a failure at one of these lowest three lock-and-dam sets would shut down the entire traffic on the Monongahela River because it likely would not be economic to maintain and operate tugboat and barge fleets in isolated stretches on the upper portion of the Monongahela without passage to and beyond the Ohio River System. Therefore, LTPs modeling scenario for the failure mode was one of complete loss of traffic on the Monongahela River

Before I discuss the quantitative impacts LTI observed from our simulation modeling, it is important to note that our modeling automatically calculates the lowest cost transportation alternative for each of many different coals into every single electric utility plant. This includes finding the lowest cost alternate transportation for those situations where the coal would have traversed a portion of the Monongahela River but now cannot do so in the failure mode scenario where a lock-and-dam set has experienced catastrophic failure. The resulting new least expensive transportation will be at a higher cost than if the Monongahela were open to traffic, and this could either: (a) raise the cost of electric generation using the same coal, (b) cause the plant to choose a different coal to burn, or (c) cause the plant to dispatch less electricity (either in favor of a competing coal-fired plant or perhaps in favor of a gas-fired plant, depending on the ultimate dispatch cost competition).

It is important to note that our model does not evaluate or determine the adequacy of alternate transportation systems; it simply assumed that the alternate transportation capacity was available, but the overall transportation cost for the substitute shipments would be higher since the least expensive barge transportation on the Monongahela was no longer available. Although not specifically evaluated in the study, it is likely that the alternate transportation system, if capacity exists at all, would at least be stressed thereby putting upward pressure on prices. Therefore, the results shown might be considered a "conservative" estimate of impacts since the system would have to work harder to supply the electricity demand (and might even fail) if there is a shortage of trucking and rail capacity. It was also beyond the scope to assess the interrelationships between river, rail, and truck transportation and the subsequent non-coal or non-electricity price impacts resulting by the alternate. These "non-studied" areas include, but are certainly not limited to, price impacts to transportation fuel prices, non-coal commodities, traffic density increases, highway safety, and impacts to highway and rail infrastructure

The Monongahela River lock-and-dam study resulted in the following conclusions:

\* Under the liberal assumption of adequate overland transportation alternatives (see notation above), no brownouts or blackouts occurred, but economic impacts were significant.

\* Approximately 21 million individuals are affected by the direct impact of the Monongahela-dependent "Plants of Interest" service areas.

\* The ripple effect of the impact goes far beyond the Plants of Interest service areas direct impacts, reaching out to a majority of U.S. electricity users, in excess of 200 million people.

\* Through "domino" effects of increased transportation costs compounded by electricity dispatch reactions associated with the loss of the Monongahela River waterway traffic, the cost of producing electricity increases almost across the entire United States. Depending on the actions of various public utilities commissions (PUCs) and the potential pass-through of wholesale purchased electricity price increases, modeling indicates the resulting price paid by electricity customers nationwide could increase by as much as $1 billion annually.

\* The impacts stated above are single-year impacts that would occur repeatedly for each year the lock-and-dam remained inoperable.

\* The impacts noted are only electric price effects resulting from coal river traffic impedance; the impacts do not include other commodities currently transported on the Monongahela River portion of the Ohio River Navigation System (approximately 15% of tonnage in this length of river is petroleum, aggregates, grain, chemicals, ores/minerals, and iron/steel) n3 .

\* If only one-half of the total 2008 tonnage (21,776,100 tons) barged through the three focus Monongahela River locks were transported by truck (assuming the other half could be shipped by rail), it would equate to an additional 1,500 twenty-ton triaxle trucks every day, or more than 60 trucks an hour, entering the local roads and highways.

\* Generally, increased price of electricity causes an increase in production costs for businesses and cost of living for the general population, which typically results in a negative impact to economic growth (quantifying these effects were beyond the scope of this study).

It is also interesting to note, in other work by LTI, it has been forecasted that even with sustained low natural gas prices (maintaining less than $4/MMBTU natural gas cost levels for 50 plus years) coal maintains a significant role in electric power generation, industrial and commercial use, and exports with a total coal demand staying above the 1 billion tons per year level for the next 50 years. Based on the combined detailed modeling performed, LTI concludes the Ohio River Navigation System is a vital component to ensuring safe, reliable, low cost, domestic energy -including electricity - to our country.

This concludes my prepared comments. Thank you for the opportunity to present the results of our study and my personal observations. I would be happy to try to answer questions, if you have any, Mr. Chairman

#### Efficient barge transportation is key to keeping electricity prices low and save jobs

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

The balance of my remarks expand on these four points.

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

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

Moving Bulk Commodities

In a normal year on the inland waterway system between 500 and 700 million tons of bulk commodities with a current approximate value of nearly $125 billion are moved an average of roughly 500 miles to produce in excess of 300 billion ton-miles of freight transportation. n1 Given that freight shippers choose barge transport over other modal alternatives, it is safe to assume that every bit of this freight traffic moves at a total supply-chain cost that is lower than what would, otherwise, be available. n2 Work that I and many of my colleagues have done in conjunction with the US Army Corps of Engineers suggests an average shipper savings of $12 per ton, so that barge shippers and their customers save more than $7 billion annually. n3

While most residents don't directly observe the shipper savings that inland barge transportation produces, they enjoy the consequences of these savings in the form of lower product or service prices. For example, a recent University of Tennessee study of coal traffic on the Ohio River and its tributaries suggests that electricity users within the region save millions annually on electricity purchases by virtue of barge transport. When this savings is extended to reflect its overall economic impact on the region, the UT study estimates that the barge movement of coal and correspondingly lower electricity rates is responsible for more than 75 thousand jobs and over $2 billion in annual incomes within the region. n4

## Agriculture Advantage Extensions

### --- XT: Agricultural Competitiveness Internal Link

#### Efficient and steady water transportation critical to global competitiveness of U.S. agriculture

Ebke, 11 --- Chairman, Production and Stewardship Action Team, National Corn Growers Association (9/21/2011, Steve, Congressional Documents and Publications, “House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

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

Farmers move their crops and receive their inputs by barge, rail and truck. The competition among these modes of transportation helps farmers receive the best price for their crops, meet their customers' demand for timely delivery of products and successfully compete with foreign producers. Without the competition that comes from access to efficient, alternative transportation methods, farmers can pay significantly more to transport their grain.

Even though not all corn growers ship to the Mississippi River, all growers are impacted by it While my home state of Nebraska is not adjacent to the Upper Mississippi River System, farmers in my area understand the importance of our inland waterway transportation system.

Every day, the price of grain a farmer receives at his home market is largely based on the price of grain that moves on the Mississippi River to export markets.

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

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

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

#### Inland waterways are key to US agriculture --- repair is needed

C. James Kruse et al 2011, Director at Center for Ports & Waterways Annie Protopapas and the Associate Research Scientist, Zafarbek Ahmedov Graduate Research Assistant, Bruce McCarl Professor, Ximing Wu Associate Professor James Mjelde Professor, December 2011, “AMERICA’S LOCKS & DAMS: “A TICKING TIME BOMB FOR AGRICULTURE?””, <http://www.unitedsoybean.org/wp-content/uploads/Americas_Locks_And_Dams.pdf>)

Agriculture accounted for 22% of all transported tonnage and 31% of all ton-miles in the United States in 2007. 1 The surface transportation system in the U.S. is central to agriculture’s ability to compete in domestic and world markets. The rapidly deteriorating condition of the nation’s lock and dam infrastructure imperils the ability of the waterborne transportation system to provide a service that will enable U.S. agricultural producers to continue to compete. Should a catastrophic failure of lock and dam infrastructure occur, agricultural producers—and consequently the American consumer—will suffer severe economic distress. This research analyzed and evaluated data and information that will illustrate this vulnerability at a micro level rather than the traditional macro level. The task of transporting agricultural commodities from the farm to first handlers and processors and ultimately to domestic and international retail markets and ports requires a highly developed, integrated transportation network, of which marine transportation is a vital component. A high percentage of these commodities pass through one or more locks on their way to market. Should a waterway be closed due to one or more lock failures, the resultant increase in costs that would be incurred in utilizing truck or rail transportation would decrease or even eliminate the cost advantage of U.S. Midwestern producers. This would be especially detrimental to export shipments. From 2005 through 2009, 87–91% of corn exported through lower Mississippi ports arrived at the ports via barge; for soybeans, the percentage was 87– 89%. 9

#### **A switch from barge transport would devastate all other traffic infrastructure, the economy, and our agriculture**

C. James Kruse et al 2011, Director at Center for Ports & Waterways Annie Protopapas and the Associate Research Scientist, Zafarbek Ahmedov Graduate Research Assistant, Bruce McCarl Professor, Ximing Wu Associate Professor James Mjelde Professor, December 2011, “AMERICA’S LOCKS & DAMS: “A TICKING TIME BOMB FOR AGRICULTURE?””, <http://www.unitedsoybean.org/wp-content/uploads/Americas_Locks_And_Dams.pdf>)

Deficiencies exist in funds to maintain and improve our nation’s roads. A potential diversion of barge traffic to long haul truck would more than likely have a strongly deleterious effect on our infrastructure, economy, and standard of living. That said, trucking is critical for American agriculture. More than 80% of America’s communities are served exclusively by trucks. The first and last movements in the supply chain from farm to grocery store are usually trucks, while barge is the most efficient and cost-effective mode for the long haul when available.

The capacity of the trucking industry is governed by three main components: drivers, trucks, and the roads they travel. The second component of the trucking industry, the trucks themselves, is governed by national law limiting axle and gross vehicle weights on the Interstate Highway System. Agricultural interests argue that farm and forest products are heavy, bulky, and of low value, making transportation a large component of their final price, and would like to see higher weight limits on the Interstates. Heavier vehicles are currently restricted to nonInterstate highways and state and local roads. 111

America’s roads are vital to truck transportation. Federal data in 2004 reported that over half of federal-aid highways are in less-than-good condition and more than one quarter of the nation’s bridges are structurally deficient or functionally obsolete. Although additional funds for highways and mass transit were made available under ARRA, Omnibus Appropriations Act of 2009, and the restoration of $7 billion to the Highway Trust Fund, average annual gaps in funding are still $96 billion for maintenance and $42 billion in improvements.

Because many agricultural products are exported, reducing congestion in urban and port areas will provide national benefits in reduced emissions and transportation costs and will also lower costs for agricultural exports and improve the competitiveness of U.S. farm products in world trade.

#### Other transportation alternatives will drive up grain prices

C. James Kruse et al 2011, Director at Center for Ports & Waterways Annie Protopapas and the Associate Research Scientist, Zafarbek Ahmedov Graduate Research Assistant, Bruce McCarl Professor, Ximing Wu Associate Professor James Mjelde Professor, December 2011, “AMERICA’S LOCKS & DAMS: “A TICKING TIME BOMB FOR AGRICULTURE?””, <http://www.unitedsoybean.org/wp-content/uploads/Americas_Locks_And_Dams.pdf>)

Though alternative transport modes will haul more grain in some of the regions to partially offset the reduced barge transport due to lock closures, the net effect is negative under any scenario. In all but one of the 24 scenarios, lock closure of any duration decreased the volume of domestic grain transported by barge, as well as the total volume transported by all three modes. The effect of lock closures on modal splits in grain transportation was not equal across the locks. However, the volume of domestic grain transportation by rail was projected to increase and the volume of truck transportation to decrease under most scenarios. The overall cost of transportation for domestic-bound grain at a national level decreased under all scenarios due to the decreased volume of total shipments. However, substantial tonnage diversion to rail combined with the higher-than-barge rail rates increased the overall cost per unit. For instance, under a three-month lock closure scenario, the volume of rail transportation increases by nearly the same amount as the decrease in volume by barge (5.5 million tons). In this case, the cost of transporting 5.5 million tons of grain amounts to $137.5 million—a $71.6 million net increase in transportation cost over the base scenario.

### --- XT: Agriculture Key to the Economy

#### Agricultural sector is make or break for the economy

Farm Aid, 8 (Fact sheet was developed in cooperation with National Family Farm Coalition, Rural Advancement Foundation International, Federation of Southern Cooperatives, and Missouri Rural Crisis Center, “Frequently Asked Questions:Family Farmers & the U.S. Economy,” http://www.farmaid.org/site/c.qlI5IhNVJsE/b.4952903/k.1A80/FAQ\_Family\_Farmers\_\_the\_US\_Economy.htm, JMP)

How will Americans be affected if farmers lose their businesses and their homes and if new farmers aren’t able to enter the industry?

American family farmers are the backbone of the nation and the first rung on the economic ladder. When farms fail, Main Street businesses fail. The opposite is also true — when farms thrive, Main Street businesses and local communities thrive. Far from Wall Street, family farmers are creating real wealth, producing real value, growing from seeds and sunlight a product that nourishes us both physically and economically. Supporting diverse decentralized family farming is necessary to the stability and vitality of our country. If we lose even one family farmer or make it increasingly difficult for new or beginning farmers to get on the land, we put our environment, our food security and our local economies at risk.

#### Key to the U.S. economy and global economy

Cupp, 4 – Assistant Professor, Department of Logistics and Resource Operations, United States Army Command and General Staff College (O. Shawn Cupp, Agroterrorism in the US: Key Security Challenges for the 21st Century, http://bcbsma.medscape.com/viewarticle/482308)

Agriculture is one of the easiest sectors of the U.S. economy to disrupt, and its disruption could have catastrophic consequences for the U.S. and world economies. Agriculture in the U.S. accounts for 13% of the current Gross Domestic Product (GDP) and provides employment for 15% of the population. It produces high-quality, cheap, plentiful food for domestic consumption and accounts for more than $50 billion in exports. The likelihood of terrorist acts interrupting the production, processing, and distribution of agricultural products is high: A number of different possible plant or animal pathogens could cause harm or loss of production, and even an act of agroterrorism that did not result in the destruction of foodstuffs or interruptions in the food supply could have a psychological impact. A number of recent unintentional events and epidemics have prompted the U.S. and other countries to provide resources to counteract contagious diseases and contain their impact, including increased funding to federal agencies that are responsible for protecting domestic agriculture. This article presents recommendations to protect agriculture, including changing the way agriculture is viewed on the federal level and increasing the resources to protect agriculture from terrorist attack.

### --- XT: Soybean Competitiveness Internal Link

#### The competitiveness of the soybean industry will collapse

MFG, 12 (Minnesota Farm Guide, 1/30/12, “Crumbling Inland Waterway System Puts Farmers, Consumers at Risk,” http://www.minnesotafarmguide.com/news/people\_and\_industry/crumbling-inland-waterway-system-puts-farmers-consumers-at-risk/article\_16c14ab6-4b7b-11e1-8644-0019bb2963f4.html)

Deteriorating condition of the U.S. lock and dam system puts the competiveness of U.S. soybean farmers at risk according to a study funded by the United Soybean Board's (USB's) and the soybean checkoff's Global Opportunities (GO) program. Entitled "America's Locks & Dams: A Ticking Time Bomb for Agriculture," the in-depth examination coordinated by the Soy Transportation Coalition (STC) found American farmers and consumers "...will suffer severe economic distress" if catastrophic U.S. lock or dam failures take place.

More than half of the structures that are part of the U.S. inland waterway system for river barge shipping exceed their 50-year usable lifespan, according to the soybean checkoff-funded report. More than one-third surpass 70 years of age, a concern because major rehabilitation is usually necessary to expand the typical lifespan from 50 to 75 years, according to the study.

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"The GO committee invested in this study to calculate the impact of the worsening condition of the lock and dam system and what the impact would be on the rail and highway system if those locks failed," says Laura Foell, soybean farmer from Schaller, Iowa, and chair of the GO committee. "It is important for all in the industry and in the public sector to have the information necessary to make informed decisions when it comes to investing in our locks and dams."

Just on the Ohio River alone, the accumulated shipping delays at broken-down locks has more than tripled since 2000, rising from 25,000 hours to 80,000 annually. And that gets expensive. This study shows that a three-month lock closure would increase the cost of transporting 5.5 million tons of oilseeds and grain, the average shipped by barge during that period, by $71.6 million. A failure at any of the locks examined by the study could cost U.S. farmers up to $45 million in lost revenue.

The U.S. inland waterways represent key infrastructure for transporting U.S. soybeans. Up to 89 percent of soybeans exported through the lower Mississippi ports, such as the Port of New Orleans, arrive at those ports in barges that must transit multiple locks for the trip downstream.

The study, conducted by the Texas Transportation Institute at Texas A&M University, examined the condition of locks on the Upper Mississippi River, Illinois River and Ohio River. The study also calculated the economic impact of specific lock failures on districts within states, showing the effect on agricultural commodity prices-and on fertilizer and coal prices, which also depend on upstream river barge shipping.

"It is important that we have a robust transportation system," adds Foell. "Only by using a combination of the lock and dam system, rail system and truck system can we continue to move our products in a manner that will help us feed the world."

The USB GO program and STC, which is made up of USB, the American Soybean Association and 11 state soybean checkoff boards, plan to examine new and different ways to fund lock and dam and other rural transportation infrastructure improvements. USB made public and private investment in transportation infrastructure one of its top two priority issues.

Inland water ways are key to the competitiveness of the U.S. soybean industry

STC, 12 (April 19, 2012 the Soy Transportation Coalition is comprised of eleven state soybean boards, the American Soybean Association, and the United Soybean Board. “Steenhoek Testifies on Importance of Inland Waterways to Soybean Industry” <http://www.soytransportation.org/newsroom/stcsteenhoektestifies.pdf>)

Ankeny, Iowa – In a congressional hearing focused on the importance of the inland waterway system to the U.S. economy, Mike Steenhoek, executive director of the Soy Transportation Coalition, testified that transportation – including our navigable waterways – “is not just a contributing factor to the economic competitiveness of agriculture, in general, and the soybean industry, in particular, it is a predominant one.” The April 18 hearing, hosted by Congressman Bob Gibbs (R-OH), Chairman of the House Transportation and Infrastructure Subcommittee on Water Resources and Environment, highlighted the significance of the nation’s lock and dam system to the overall economy, the alarming condition of system, and the need to strategically invest in it. In his testimony, Steenhoek stressed how the primary reason U.S. soybeans are the most economical to international customers is due to our transportation efficiencies compared to Brazil – the main competitor to the U.S. soybean industry on the world marketplace. However, as Brazil continues to invest in their transportation infrastructure and the U.S. remains anemic in investing in ours, that competitive advantage will erode. Steenhoek cited the current expansion of the Panama Canal and its potential to enhance the viability of maritime transportation. That potential will only be realized if the U.S. makes the necessary investments in locks and dams and ports. Otherwise, the expansion project will be a missed opportunity. “Our overall dilapidated lock and dam system – exhibited by unscheduled maintenance, mechanical breakdowns, and a threat of failure – sends a terrible signal to those who utilize the system,” explained Steenhoek. “How can we expect grain handlers and other freight interests to invest millions of dollars on new or upgraded facilities when we cannot provide certainty that their shipments will be delivered to customers in an efficient manner?” While the need for greater investment in the inland waterways system is well established, Steenhoek stated in his testimony that “how you allocate money is just as important as how much money you allocate.” Steenhoek explained, “It is discouraging to observe how many other countries are able to construct their major infrastructure projects much more efficiently than we can. The Panama Canal expansion project is a great example. This $5.25 billion project commenced in 2007 and is scheduled to be completed in late 2014 or early 2015. The expansion project is more imposing and complex than any project we have underway or planned in our inland waterway system, yet all indications are that the project will be completed within budget and only a handful of months behind schedule. Compare this to our Olmsted Lock and Dam project that had an original cost estimate of $775 million and has recently been updated to over $3 billion with a significant time horizon remaining before it will be completed. When examining the various reasons for our repeated cost overruns and project delays, it quickly becomes evident that a major contributing factor is the piecemeal and unpredictable manner in which we finance these projects.” Steenhoek concluded his remarks by encouraging subcommittee members to consider how “a predictably good inland waterway system is better than a hypothetically great one.” Because of our nation’s inability to simultaneously complete new lock projects and maintain our current lock projects, it may be necessary to prioritize being a better steward of our current system to keep it in a state of good repair. Doing so, Steenhoek suggests, would send a much better signal to those grain handlers who depend on a functioning lock and dam inventory.

#### **Deteriorating waterways undermines the competitiveness of the soybean industry**

USB, 12 (1/24/2012, United Soybean Boards, “Waterway system a ‘ticking time bomb’ for US agriculture”, http://westernfarmpress.com/government/waterway-system-ticking-time-bomb-us-agriculture)

Deteriorating condition of the U.S. lock and dam system puts the competiveness of U.S. soybean farmers at risk according to a study funded by the United Soybean Board’s (USB’s) and the soybean checkoff’s Global Opportunities (GO) program. Entitled “America’s Locks & Dams: A Ticking Time Bomb for Agriculture,” the in-depth examination coordinated by the Soy Transportation Coalition (STC) found American farmers and consumers “…will suffer severe economic distress” if catastrophic U.S. lock or dam failures take place. More than half of the structures that are part of the U.S. inland waterway system for river barge shipping exceed their 50-year usable lifespan, according to the soybean checkoff-funded report. More than one-third surpass 70 years of age, a concern because major rehabilitation is usually necessary to expand the typical lifespan from 50 to 75 years, according to the study. “The GO committee invested in this study to calculate the impact of the worsening condition of the lock and dam system and what the impact would be on the rail and highway system if those locks failed,” says Laura Foell, soybean farmer from Schaller, Iowa, and chair of the GO committee. “It is important for all in the industry and in the public sector to have the information necessary to make informed decisions when it comes to investing in our locks and dams.” Just on the Ohio River alone, the accumulated shipping delays at broken-down locks has more than tripled since 2000, rising from 25,000 hours to 80,000 annually. And that gets expensive. This study shows that a three-month lock closure would increase the cost of transporting 5.5 million tons of oilseeds and grain, the average shipped by barge during that period, by $71.6 million. A failure at any of the locks examined by the study could cost U.S. farmers up to $45 million in lost revenue. The U.S. inland waterways represent key infrastructure for transporting U.S. soybeans. Up to 89 percent of soybeans exported through the lower Mississippi ports, such as the Port of New Orleans, arrive at those ports in barges that must transit multiple locks for the trip downstream. The study, conducted by the Texas Transportation Institute at Texas A&M University, examined the condition of locks on the Upper Mississippi River, Illinois River and Ohio River. The study also calculated the economic impact of specific lock failures on districts within states, showing the effect on agricultural commodity prices—and on fertilizer and coal prices, which also depend on upstream river barge shipping. “It is important that we have a robust transportation system,” adds Foell. “Only by using a combination of the lock and dam system, rail system and truck system can we continue to move our products in a manner that will help us feed the world.” The USB GO program and STC, which is made up of USB, the American Soybean Association and 11 state soybean checkoff boards, plan to examine new and different ways to fund lock and dam and other rural transportation infrastructure improvements. USB made public and private investment in transportation infrastructure one of its top two priority issues.

#### **Inland waterways system vital to transport US soy exports – alternative methods like rail cost too much**

USB, 12 (United Soybean Board, 2/8/12, “Dilapidated Locks on U.S. Rivers Put Farmers, Consumers at Risk,” http://www.unitedsoybean.org/global-opportunities-briefings/dilapidated-locks-on-u-s-rivers-put-farmers-consumers-at-risk/)

Worsening conditions of the U.S. lock and dam system threaten the competiveness and economic viability of U.S. soybean farmers and the U.S. transportation system as a whole. Should a lock failure take place, U.S. farmers and consumers will suffer.

Why It Matters

The U.S. inland waterways serve as an important and economical route to transport U.S. soy to global markets. Fifty-nine percent of total 2011 soybean exports passed through Mississippi River ports, such as the port of New Orleans. Of those soybeans, 89 percent arrives at those ports via the locks of the U.S. inland waterways. A failure at any of the locks along this system could cost U.S. soybean farmers up to $45 million in lost revenue.

Issue Summary

A recently released soybean checkoff-funded study entitled “America’s Locks and Dams: ‘A Ticking Time Bomb for Agriculture?’” examines the transport of commodities on the upper Mississippi River, Illinois River and Ohio River. The study, coordinated with the Soy Transportation Coalition, explains how the degradation of the current lock system affects U.S. farmers and what future catastrophes could cost U.S. agriculture. The vulnerable condition of the current U.S. inland waterway system has the potential to harm the competitiveness of U.S. agriculture and put added stress on a transportation system already suffering with age and overcapacity. A lock failure, especially to the south of the river transportation system, could cost U.S. farmers, exporters and even customers millions to reroute shipments and use other more expensive forms of transportation – such as rail and truck.

Critical Facts

From 2000-2010 a lock on the Ohio River experienced an average total freight volume of 4.1 million tons per month, Illinois River locks moved 1.6 million tons and upper Mississippi River locks handled 1.7 million tons. During this same period, soybeans and corn accounted for more than 92 percent of total grain and oilseed volume moved by barge on the Ohio River valued at $13.1 million, 94 percent on the Illinois River valued at $11.7 million and 82 percent on the Upper Mississippi River with a value of $40.3 million.

This equals approximately 7.5 million bushels of soybeans traveling through locks on the upper Mississippi River and 2.3 million bushels of soybeans using locks on both the Illinois River and the Ohio River.

The study expresses grave concern about aging locks and dams along these rivers that serve as critical pieces of the U.S. inland waterway system. It shows 54 percent of the structures have bypassed their typical service life of 50 years old and 36 percent exceed 70 years old. The effect this aging has on the usability of the rivers can be seen in the increasing number of hours of delays experienced by barges in tow. On the Ohio River alone, outages have tripled since 2000, going from 25,000 hours annually to 80,000 in 2010. Delays can be costly. According to the study, a three-month lock closure could increase the cost of transporting 5.5 million tons of oilseeds and grain, the average shipped by barge during that period, by $71.6 million. A failure at any of the locks examined by the study could cost U.S. farmers up to $45 million in lost revenue.

The majority of lost revenue could be from the increase in transportation costs, since shipping by barge remains the most economic method. A lock closure lasting one month on either the Illinois or Mississippi river would divert more than 30 million bushels of grain and oilseeds from the Gulf Port to the West Coast, which increases shipping costs due to higher rail and ocean-shipping costs. A month long closure on the Ohio River results in 14 million bushels of grain and oilseeds shifting to the Great Lakes and East Coast away from the Gulf Coast.

If shipping by barge became unavailable, many shipments would be sent by rail. Currently the rail system has the capacity to handle additional commodity shipments, but with rail traffic predicted to increase by 2035, that may not be the case in the future.

Truck traffic could also see an increase if a lock failure resulted in a long-term closure to barge movement on a major river. This would especially be true if capacity for rail shipping becomes constrained. Increases in truck traffic for shipping commodities could not only drive up prices, but also further stress the already suffering U.S. surface transportation system.

U.S. farmers could also pay an increase in agricultural inputs, such as fertilizer and fuel, which would affect consumers, too, if the inland waterway system became unavailable. According to the study, fertilizer costs alone would increase $8 per ton if alternate transportation methods had to be used. In addition, energy costs, especially for the East Coast, would increase.

The U.S. Army Corps of Engineers has worked with the navigation industry to evaluate and prioritize the maintenance and rehabilitation of these structures. The study examined six of these projects, finding that cost estimates for just these projects totaled approximately $4 billion. Only $1.8 billion of that has been funded by 2012. The Corps currently maintains or operates 221 locks at 185 sites.

Issue Conclusion

USB made maintaining the freedom and infrastructure to operate as one of its four strategic objectives. To maintain its competitive edge, U.S. agriculture needs U.S. locks and dams to be in working condition. USB and the Soy Transportation Coalition continue to research this issue and search for new ways to fund the maintenance and improvement of locks, dams and other important infrastructure for agricultural shipping.

### --- XT: Decline U.S. Soybeans => Increase in South American Production

#### **South American production empirically the substitute for U.S. soybeans**

Babcock, 6 (Summer 2006, A., Bruce, Cargill Endowed Chair of Energy Economics, the Director of the Biobased Industry Center, a professor of economics at Iowa State University, Ph.D. in agricultural and resource economics from the University of California at Berkeley, “Can South America Pick Up the Soybean Slack?” http://www.card.iastate.edu/iowa\_ag\_review/summer\_06/article4.aspx)

The astounding ramp-up in U.S. ethanol production means that acreage planted to corn in the United States will significantly increase over the next five years. The number one source of additional corn acres will be converted soybean acres. Other sources will be converted pasture, land taken out of the Conservation Reserve Program, and land taken out of other crops, primarily wheat. Chad Hart shows elsewhere in this issue that the market is already signaling farmers to convert soybean acres to corn acres. Decreased U.S. soybean acres means increased demand for substitutes for U.S. soybeans, which include soybeans from other countries and other oilseeds from the United States and elsewhere.

Figure 1

By far the largest supplier of substitutes for U.S. soybeans is South American soybean production. But South America production is seemingly less predictable now than it used to be. Figure 1 shows that the average yield in Argentina and Brazil in the last three years has been well below peak levels in 2000 and 2002. Drought, Asian soybean rust, and a slowdown in conversion of virgin lands have all worked to slow down yield growth. What is perhaps more surprising is that the number of hectares harvested in these two countries actually fell this year after showing a smaller-than-normal increase last year. Again, the impact of drought, as well as increased production costs and relatively weak prices, is showing up in decreased harvested land.

Figure 2

The common assumption is that as more U.S. land is devoted to corn to produce ethanol, South America will continue to ramp up production to meet increased world demand for oilseeds. As shown in Figure 2, together, Brazil and Argentina have already surpassed the United States in soybean production. South America will need to continue to increase production significantly to offset declines in the United States as well as to meet projected growth in world demand for oilseeds.

World soybean prices are likely to increase as U.S. acreage declines. This increase in price will induce more production in South America. The responsiveness of South American soybean production to this price increase will determine how quickly the United States will shift to corn. Livestock feeders and consumers of corn and oilseeds worldwide have a large stake in seeing South America get back to its historical path of production growth.

### --- XT: Soybean Production => Deforestation / Biodiversity Loss

#### **Soybean production requires deforestation and triggers biodiversity loss**

Fearnside, 2k (10/10/00, M., Philip, Research Professor in the Department of Ecology at the National Institute for Research in the Amazon (INPA))

The ‘dragging effect’ and destructive development

The impact of soybeans greatly exceeds the loss of natural areas directly converted to this land use because of the massive infrastructure development needed to provide trans- portation for harvest and entry of inputs. Other land uses, such as cattle pasture, occupy vast areas but do not carry the political weight needed to induce the government to build up to eight industrial waterways (Fig. 2), three railways, and an extensive network of highways (Fig. 3). Much of the Amazonian portion of the federal government’s 1996–1999 ‘Brazil in Action’ (Brasil em Ação) programme was devoted to soybean infrastructure (Consórcio Brasiliana 1998; Brazil, Programa Brasil em Ação 1999). The 2000–2003 Pluriannual Plan (PPA), better known as ‘Forward Brazil’ (Avança Brasil), foresees budget allocations for the same infrastruc- ture (Brazil, Programa Avança Brasil 1999, 2000). There are additional existing and planned waterways in other parts of the country, but these are not directly related to soybeans.

Much of the effect of the infrastructure projects comes

Figure 2 Industrial hidrovias (waterways) for soybean transport. Waterways 1, 4 and the southern part of 5 are partially operational; 2 and 3 are in advanced stages of the licensing process; the northern part of 5 is included in Forward Brazil plans, and 6, 7 and 8 are in preliminary stages of discussion.

from what Brazilian planners call the ‘dragging effect’ (efeito de arraste), or the stimulation of private investment as a result of public expenditure in a project. According to the head of ‘Brazil in Action’, the Madeira Waterway is expected to have a ‘dragging effect’ equal to three times the direct expendi- tures on the project (Paulo Silveiro, Director, Brazil in Action Programme, public statement 1998). The investments attracted can be expected to include logging, ranching and other activities with severe biodiversity impacts.

The cost to the country of producing soybeans includes not only money invested in infrastructure and in the soy production system, but also the opportunity cost of lost environmental services caused by the full impact on natural ecosystems affected by the ‘dragging effect’, not just what is planted directly to soybeans. The ‘dragging effect’ completely escapes the current environmental impact statement and project licensing process in Brazil (Fearnside 2001a). Costs include biodiversity loss when natural ecosystems are converted to soybeans, severe impacts to some of the transportation systems, soil erosion, health and environmental effects of agricultural chemicals, expulsion of population that formerly inhabited the areas used for soybeans, lack of production of food for local consumption because crop land used for subsistence agriculture is taken over by soybeans, and the opportunity cost of government funds devoted to subsidizing soybeans not being used for education, health and investment in activities that generate more employ- ment than does mechanized cultivation of soy. Employment generation by soybean cultivation is minimal. In Maranhão, on average only one worker is employed per 167 ha of soybeans,

Soybean cultivation in Brazil 25

￼Figure 3 Locations mentioned in the text.

and on large plantations this ratio rises to one per 200ha (Carvalho 1999). The employment created often contributes nothing to alleviating local unemployment. For example, in Humaitá, Amazonas, skilled workers from the state of Rio Grande do Sul (Fig. 3) are brought in to operate the agricultural machinery (P.M. Fearnside, personal observation).

#### **Soybeans destroy rainforests in Brazil – new infrastructure justified by soybean farming leads to deforestation**

Fearnside, 2k (10/10/00, M., Philip, Research Professor in the Department of Ecology at the National Institute for Research in the Amazon (INPA))

Soybeans represent a recent and powerful threat to tropical biodiversity in Brazil. Developing effective strategies to contain and minimize the environmental impact of soybean cultivation requires understanding of both the forces that drive the soybean advance and the many ways that soybeans and their associated infrastructure catalyse destructive processes. The present paper presents an up-to-date review of the advance of soybeans in Brazil, its environmental and social costs and implications for development policy. Soybeans are driven by global market forces, making them different from many of the land-use changes that have dominated the scene in Brazil so far, particularly in Amazonia. Soybeans are much more damaging than other crops because they justify massive transportation infrastructure projects that unleash a chain of events leading to destruction of natural habitats over wide areas in addition to what is directly cultivated for soybeans. The capacity of global markets to absorb additional production repre- sents the most likely limit to the spread of soybeans, although Brazil may someday come to see the need for discouraging rather than subsidizing this crop because many of its effects are unfavourable to national interests, including severe concentration of land tenure and income, expulsion of population to Amazonian frontier, and gold-mining, as well as urban areas, and the opportunity cost of substantial drains on government resources. The multiple impacts of soybean expansion on biodiversity and other development considerations have several impli- cations for policy: (1) protected areas need to be created in advance of soybean frontiers, (2) elimin- ation of the many subsidies that speed soybean expansion beyond what would occur otherwise from market forces is to be encouraged, (3) studies to assess the costs of social and environmental impacts associ- ated with soybean expansion are urgently required, and (4) the environmental-impact regulatory system requires strengthening, including mechanisms for commitments not to implant specific infrastructure projects that are judged to have excessive impacts.

### --- XT: Deforestation Impacts

#### The Brazilian Amazon is uniquely key to the Earth’s climate

Hanley, 5 (2/16/05, J., Charles, Pulitzer-Prize winning journalist for the AP, Amazon deforestation adds to warming trend Burning trees now account for 20 percent of manmade CO2,” http://www.msnbc.msn.com/id/6870856/ns/us\_news-environment/t/amazon-deforestation-adds-warming-trend/#.T-jRY3ChA0Z)

As the light plane banked left, the smell of smoke reached the cockpit. The landscape below was an ashen green, the sun above an orange glow behind sooty billows of gray.

The Amazon forest was burning, and it was more than a sign of human encroachment. It was also the sight and scent of a dangerous chemistry, of tons of carbon dioxide — transformed from wood and leaf — rising into an atmosphere already loaded with it.

In cooler confines some days later, at an international climate conference in Argentina, British scientists told of a different, slow-motion kind of chemistry in the tropical forest, one foreseen by supercomputers running intricately programmed models of global warming.

“In the Amazon, the vegetation dies back because there won’t be enough rain,” explained climatologist Vicky Pope, detailing one of the most sophisticated studies yet — by Britain’s Hadley Centre — of what a warmer world would mean.

For South America’s rain forests, such a “dieback” would mean steady decomposition of dead vegetation and the release into the atmosphere of massive amounts of carbon dioxide, the “greenhouse gas” that itself is blamed for much of climate change.

1,700 researchers at work

Whether it unfolds quickly by fire or slowly through global warming, the future of this forested river basin is a key to the future of Earth’s climate. Hundreds of scientists are working overtime to understand that critical relationship — between the atmosphere and the region known as Amazonia, more than 11 times the size of Texas and home to one-third of the world’s species.

“Scientifically, we’re not 100 percent confident we know all the processes,” said Brazilian physicist Paulo Artaxo, who has studied the Amazon for 20 years. “There are thousands of different critical effects. There’s much more scientific work that needs to be done.”

Artaxo is a lead scientist among 1,700 researchers, from 200 universities and other institutions, who have joined during the past six years in an unprecedented undertaking called “LBA” — for Large-Scale Biosphere-Atmosphere Experiment in Amazonia — a Brazilian-U.S.-European scientific assault on the unknowns of what some call the planet’s “lung,” the Amazon’s breathing green vastness.

The respiratory process is well known: Trees absorb carbon dioxide through their leaves, use it to build themselves, and emit oxygen into the air.

That keeps an atmospheric balance, but industrialized man has thrown the balance off by burning fossil fuels and producing excess carbon dioxide, which traps heat that otherwise would escape into space.

Most scientists believe the 1-degree-Fahrenheit rise in global temperatures the past century was largely a result of those emissions, and they project higher temperatures and climate disruptions to come. The international pact called the Kyoto Protocol, a limited first step in trying to control emissions, takes effect on Feb. 16, though without participation of the United States, the biggest emitter, which maintains the emissions cutbacks would set back its economy too much.

Forest variables are many

The forest’s basic science may be well known. But the details are immensely complex — of soils and nutrients, evaporation and precipitation, rivers and lakes, gas flows and root systems, and of the hard numbers of deforestation, which pours carbon dioxide into the atmosphere at the same time that it kills off carbon-absorbing vegetation.

But whatever the unknowns, “we already know enough to make policy decisions. The important thing is to stop deforestation,” American ecologist Philip M. Fearnside told a reporter, as a tropical downpour beat on the roof of his institute in Manaus, the Amazon’s major riverside city.

Satellite reconnaissance showed that 600 fires were started in the region each day on average last year, the Brazilian government reports. The rate of destruction has almost doubled in the past decade, to 9,000 square miles over 12 months of 2003-2004 — an area about the size of New Hampshire.

Forest is being destroyed by cattle ranchers, by landless peasants slashing and burning to create cropland, by illegal lumbering, and increasingly by large agribusinesses planting lucrative soybean. The fires seen everywhere from the air outside Santarem, a rough-edged town 500 miles up the Amazon from the Atlantic, were mostly set to create giant fields for soy.

The government’s own plans to pave 2,100 miles of additional road through the wilderness could lead to clearing of up to 70,000 square miles of forest over 30 years, it was estimated by Fearnside’s Amazon Environmental Research Institute.

Judging from experience, “paving increases the deforestation rate in a strip along the highway, to a depth of 50 kilometers” — 30 miles — “on each side,” said Fearnside, who has pioneered Amazon research for three decades.

What might this mean in a time of climate change?

Worldwide deforestation is now believed to contribute under 20 percent of manmade emissions of carbon dioxide, said Artaxo, of Brazil’s University of Sao Paulo. And the Amazon forest is believed to remain a “sink” — still absorbing slightly more carbon than it emits.

Reinforcing warming

But scientists say the feedback loops of a warming world might change that picture in mere decades.

For one thing, computer modeling foresees a warmer Pacific Ocean stirring more frequent and intense El Ninos, the climate phenomenon that tends to dry the eastern Amazon. Rising temperatures themselves would also help dry vegetation. In addition, deforested terrain sends less moisture — via plants’ “evapotranspiration” — into the air to fall as rain. Dead trees then add more carbon dioxide to the atmosphere, further heightening warming in a destructive cycle.

The Intergovernmental Panel on Climate Change, a U.N.-organized science network, concluded in its latest assessment that the remaining Amazon “is threatened by the combination of human disturbance, increases in fire frequency and scale, and decreased precipitation from evapotranspiration loss, global warming, and El Nino.”

Much more remains to be learned, even including how much “biomass” an average acre contains in this highly diverse forest — a number crucial to knowing how much carbon a dying forest would release.

#### **Deforestation leads to loss of biodiversity**

Lindsey, 7 (3/30/07, Rebecca, Technical Writer for NASA, “Tropical Deforestation,” <http://earthobservatory.nasa.gov/Features/Deforestation/>)

Impacts of Deforestation: Biodiversity Impacts

Although tropical forests cover only about 7 percent of the Earth’s dry land, they probably harbor about half of all species on Earth. Many species are so specialized to microhabitats within the forest that they can only be found in small areas. Their specialization makes them vulnerable to extinction. In addition to the species lost when an area is totally deforested, the plants and animals in the fragments of forest that remain also become increasingly vulnerable, sometimes even committed, to extinction. The edges of the fragments dry out and are buffeted by hot winds; mature rainforest trees often die standing at the margins. Cascading changes in the types of trees, plants, and insects that can survive in the fragments rapidly reduces biodiversity in the forest that remains. People may disagree about whether the extinction of other species through human action is an ethical issue, but there is little doubt about the practical problems that extinction poses.

First, global markets consume rainforest products that depend on sustainable harvesting: latex, cork, fruit, nuts, timber, fibers, spices, natural oils and resins, and medicines. In addition, the genetic diversity of tropical forests is basically the deepest end of the planetary gene pool. Hidden in the genes of plants, animals, fungi, and bacteria that have not even been discovered yet may be cures for cancer and other diseases or the key to improving the yield and nutritional quality of foods—which the U.N. Food and Agriculture Organization says will be crucial for feeding the nearly ten billion people the Earth will likely need to support in coming decades. Finally, genetic diversity in the planetary gene pool is crucial for the resilience of all life on Earth to rare but catastrophic environmental events, such as meteor impacts or massive, sustained volcanism.

#### **Deforestation causes global warming - releases 30% of total greenhouse gases**

FAO, 6 (9/4/06, Food and Agriculture Organization, “Deforestation causes global warming,” http://www.fao.org/newsroom/en/news/2006/1000385/index.html)

Most people assume that global warming is caused by burning oil and gas. But in fact between 25 and 30 percent of the greenhouse gases released into the atmosphere each year – 1.6 billion tonnes – is caused by deforestation.

About 200 experts, mostly from developing countries, met in Rome last week to address this issue in a workshop organized by the United Nations Framework Convention on Climate Change (UNFCCC) and hosted by FAO. “We are working to solve two of the key environmental issues – deforestation and global warming – at the same time,” said FAO Senior Forestry Officer Dieter Schoene.

Trees are 50 percent carbon. When they are felled or burned, the C02 they store escapes back into the air. According to FAO figures, some 13 million ha of forests worldwide are lost every year, almost entirely in the tropics. Deforestation remains high in Africa, Latin America and Southeast Asia.

#### **Deforestation causes irreversible loss of biodiversity – natural habitat is destroyed**

Vieira et. al., 8 (Nov. 2008, Ima Vieira, Director of Museu Paraense Emílio Goeldi, Brazilian research institution; Peter Toledo, Faculty Member at INPE, National Institute for Space Research, Dr. Jose MC Silva, PhD by Zoological Museum, University of Copenhagen; Dr. Horacia Higuchi, researcher at Museu Paraense Emílio Goeldi, “Deforestation and threats to the biodiversity of Amazonia,” http://www.scielo.br/scielo.php?pid=S1519-69842008000500004&script=sci\_arttext)

Annual estimates of forest loss in Amazonia are calculated by means of satellite imagery and measurements in square kilometers. Thus, for the 2003-2004 period, deforestation in the region is estimated at about 26,130 km2. What is not generally known is the number of living organisms (which may be considered natural resources) lost per square kilometer of cut-down forest.

Plants attain an extraordinary biodiversity in Amazonia. It is estimated that the region harbors some 40,000 vascular plant species, of which 30,000 are endemic (Mittermeier et al., 2003). Studies on the density of plants in Amazonia have been mainly focused on a restricted group of plants – trees with trunks with a diameter at breast height of over 10 cm. In one hectare of Amazonian forest, some 400 to 750 such trees can be found. A recent study estimated that, in the region of the Deforestation Arch, the number of such trees in an area of 1 km2 of forest may vary from 45,000 to 55,000 (Ter Steege et al., 2003). By multiplying these values by the above-mentioned total deforested area, we can estimate some 1,175,850,000 to 1,437,150,000 trees were cut down in the Arch between 2003 and 2004.

Two groups of animals for which some statistics are available are birds and primates. It is thought that Amazonia harbors over 1,000 avian species: some 250 species of birds can be found in a single square kilometer of Amazonian forest. Studies in French Guiana (Thiollay, 1994) and Peru (Terborgh et al., 1990) indicate the number of individuals living in a square kilometer: 1,658 in French Guiana and 1,910 in Peru, respectively. The same calculations done previously for plants yield an estimate of 43 to 50 million individual birds affected by deforestation in that period. As for primates, which comprise fourteen genera in Amazonia, of which five are endemic, studies conducted in various subregions show that their density vary considerably (Peres and Dolman, 2000). If one applies the aforementioned calculations to the simian populations in Rondônia, Mato Grosso and Pará, the States most subjected to deforestation, where a square kilometer of forest could harbor between 35 and 81 individuals, one estimates between 914,550 and 2,116,530 individuals would have been wiped out.

Those numbers, albeit in a somewhat oversimplified way, may give us a notion of the magnitude of the loss and waste of natural resources associated to deforestation in Amazonia. For a mental picture of such numbers, if we placed all felled trees side by side and assumed each one has a trunk with a maximum diameter of 10 cm (a considerable underestimation in Amazonian terms), we could state very conservatively that they would extend for 117,585 to 143,715 km – that is, some three to three-and-a-half times the circumference of the Earth at the Equator. Estimated numbers for animals are also huge, many times higher than those known, for instance, for the illegal animal trade: it is estimated that some 2-5 million birds and 25,000-40,000 primates are annually commercialized in the world (RENCTAS, 2001). Such numbers are mere fractions of what would have been lost with deforestation in Amazonia last year.

Loss of biodiversity is the main consequence of deforestation in Amazonia, and is also totally irreversible. It is always possible to prevent soil erosion and recover water bodies and nutrient cycling by means of simplified ecological systems, but it is impossible to bring back extinct species. In addition, Amazonian species are not widely distributed, but have instead a restricted distribution (Cracraft, 1985). Also, most of the species are rare, with small populations and very sensitive to any change in their respective habitats (Terborgh et al., 1990; Thiollay 1994). Large-scale deforestation threatens thousands of species, many of which are already listed as endangered by the Brazilian Government, such as some birds (Dendrexetastes rufigula rufigula Lorenz, 1895, Dendrocincla merula badia Zimmer, 1934, Dendrocincla fuliginosa trumai Sick, 1970, Pyrrhura lepida coerulescens Neumann, 1927, Pyrrhura lepida lepida (Wagler, 1927), Clytoctantes atrogularis Lanyon, Stotoz and Wilard, 1990 and Phlegopsis nigromaculata paraensis Hellmayr, 1904) and primates (Cebus kaapori Queiroz, 1982, Allouatta belzelbul ululata Elliot, 1912 and Chiropotes satanas Hoffmannsegg, 1807).

## Solvency Extensions

### --- XT: Federal Investment Solves

#### Expanded federal investment is key to ensure inland barge transportation that drives freight

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Introductory Comments and Summary

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

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

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

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

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

#### Expanded modernization for inland waterways is infrastructure investment and will boost jobs

Ebke, 11 --- Chairman, Production and Stewardship Action Team, National Corn Growers Association (9/21/2011, Steve, Congressional Documents and Publications, “House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

The truth is that many locks currently in use within the U.S. inland waterways system are too small for today's larger tows, susceptible to closures and long delays for repairs, and unable to deal effectively with lines and wait times that results from their obsolescence. The American Society of Civil Engineers 2005 Reporl Card for American Infrastructure assigned a grade of D to the condition of our river infrastructure. On the Upper Mississippi River, many lock chambers are 600 feet in length. However, the average length of a modern tow (15 barges pushed by a towboat) is 1,200 feet. Consequently, for a modern tow to navigate through these antiquated locks, it must split in half and transit the lock one section at a time, resulting in costly delays. The good news is that construction has been planned for five new locks along the Upper Mississippi River - L&D 25, 24, 22, 21 and 20 - and two new locks along the Illinois River at LaGrange and Peoria. The planning was completed by the U.S. Army Corps of Engineers and approved by the Chief of Engineers in December 2004. In the 2007 Water Resources Development Act (WRDA), Congress authorized construction on these seven projects within the NaVigation and Ecosystem Sustainability Program (NESP). The dual-purpose NESP authorization integrates modernization of the navigation system to reduce barge traffic delays with restoration of important habitats. Unfortunately, in the four years since the passage of WRDA, little or no funding has been allocated.

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

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

As the most fuel efficient means of transportation for agricultural commodities, an investment in our waterways infrastructure will help us toward our national goals of energy security and improving our environmental footprint. Barges operate at 10 percent of the cost of trucks and 40 percent of the cost of trains, while releasing twenty times less nitrous oxide, nine times less carbon monoxide, seven times less hydrocarbons, and burning ten times less high-price fuel.

Of course, we all realize that in this time of severe budget constraints, we must be more responsible and efficient with our federal spending. That's why in 2009, the U.S. Army Corps 9fEngineers collaborated with the Inland Waterways Users Board and other stakeholders to draft the Inland Waterways Capital Development Plan, which recommends major improvements to project funding and delivery. The plan proposes a more adequate funding mechanism, prioritizes navigation projects across the entire system, improves the Corps' project management, provides more oversight, and ensures the Inland Waterways Trust Fund (lWTF) continues to retain necessary matching federal funds.

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

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

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

In March of 2010, NCGA officially endorsed the Inland Waterways Capital Development Plan, and we have strongly advocated for its inclusion in any future WRDA bill or infrastructure development proposals. We recognize that the increase in the fuel tax will ultimately be passed on to farmers, but NCGA strongly believes that a strategic investment in our nation's waterways will be beneficial to the agriculture industry in the long run. Without a restructured capital development plan, the seven locks authorized in WRDA in 2007 could be waiting decades to begin construction.

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

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

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

#### **Expanded federal funding is the key variable to infrastructure improvement**

Buchsbaum, 12 – Associate Editor of Coal Age Magazine (2/2012, Lee, “LOCKED Out: Aging Locks and Dams Jeopardize Inland Waterways Is a catastrophic cascading systems failure about to occur along the Ohio River?” <http://www.uppermon.org/news/Other/CA-Locked_Out-Feb2012.html>)

Solutions to Difficult and Expensive Problems In an effort to try to fix this failing model, a group of industry stakeholders including the Coast Guard, the Waterways Council and others sat down and hammered out a plan. Titled the “Inland Marine Transportation Systems Capital Projects Business Model,” the plan “would allow us to complete 25 projects in a 20-year period as opposed to seven projects over a 20-year period if we go down the current path. And I have serious doubts that they’ll even be able to accomplish the seven projects at the pace they’re going,” said Darling. The new plan provides for additional revenues for the trust fund, it re-prioritizes the nation’s investments, and recognizes and accounts for all the beneficiaries of the water systems, and “it protects commercial users that cost-share the construction projects,” said Darling. The development plan has five elements. The first is to increase Federal funding for the program from the current $160 million a year to $380 million. Second, it suggests a way to prioritize the projects so that those that are ready to go and provide the most benefit would be funded first. Third, it proposes reforming the core project delivery process that now takes 40 years to achieve “what we used to be able to achieve in four years. And finally, it proposes to increase the current diesel fuel tax of $0.20 a gallon to $0.69 a gallon to help pay for these projects,” said Toohey. Indeed, the waterways users would “volunteer to pay more money for an increased fuel tax,” said Toohey. Stakeholders hope that by taking a page out of the Warren Buffet playbook and showing a willingness to increase their collective exposure, maybe the government will follow suit. But so far, as the Great Recession wanes on, Congress’ reception has been decidedly mixed. “Members that understand the importance of investment and infrastructure support it and those that are just, ‘no new taxes,’ of course oppose this,” said Toohey. While industry is prepared to raise its stake, the only thing that can really save the existing system are more Federal funds. “It really is going to take convincing Congress that we need more infrastructure investment. This is not a discussion about raising taxes. It’s about having the resources to invest so that our economy can thrive. Congressman Ed Whitfield (R-KY) has agreed to be a champion for the proposal in House of Representatives. For the sake of the Inland Waterways system and to maintain the health and viability of our nation’s industrial heartland, we need to pass the Whitfield bill,” said Toohey.

#### The current financing mechanism for modernizing inland waterway infrastructure is broken --- a capital development project will boost investment necessary to prevent failures across the system

Toohey, 11 --- President and CEO of Waterways Council, Inc. (9/21/2011, Mike, Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

Mr. Chairman, let me address the most glaring example of the deficiencies of the current system. The Olmsted Lock and Dam project (which you recently visited) is located on the Ohio River bordering Illinois and Kentucky. It was originally authorized by Congress in 1988 at a cost of $775 million with a projected 12 year construction period. More tonnage passes through this point than any other place on America's inland navigation system. In 2008 alone, $17 billion of cargo transited this portion of the Ohio River. One-third of the coal shipped on the inland waterways moves through this part of the system on its way to the more than 50 power plants located along the Ohio River. The Olmsted Lock and Dam is designed to replace the antiquated Locks 52 and 53 in the same vicinity with a single facility consisting of twin 100 foot x 1200foot lock chambers and a submersible dam. Because of the cost-share fonnula, 50% (or $387.5million) of this original authorization and any increases are shared by the IWTF. Unfortunately, the cost for the Olmsted project, the construction of which is far from complete, has ballooned to$2.1 billion 26 years later. And, just in the past month, the Corps of Engineers has advised stakeholders that the cost of the Olmsted project is due to change "significantly" yet again. So, even before we know the exact magnitude of the latest change, which we understand to mean "increase", the cost of this project has tripled with the completion date nowhere in sight. When we learn the full dimensions of this cost increase, it may be necessary to reevaluate the future of the Olmsted project and to consider the viability of other alternatives. In any event, the Olmsted project, together with numerous other similar projects throughout the inland system, underscore the notion that the business model for financing navigation projects in this country is seriously broken.

Mr. Chainnan, we are not alone in our concern about the state of our inland waterways infrastructure. A recent Des Moines Register editorial stated: "On the Upper Mississippi, which is particularly important for Iowa and other Midwestern states, the locks and dams that enable river navigation are long overdue to be replaced. This country's ability to move exports and imports quickly and efficiently will be lost if river navigation is not maintained and expanded.

That would have serious economic implications." And, the Huntington West Virginia Herald-Dispatch opined: "Unfortunately, the maintenance of the waterways and the deterioration of the locks and dams that connect them is reaching a crisis level." I have attached copies of these editorials (as Exhibit 1) and I could quote from many more observers who have decried the current state of our inland waterways system and the looming disaster that we face as a country if we do not find a solution to this problem in the near future.

It is clear that the current financing model is providing for only minimal improvements to a few components of the system and will not generate the funding necessary to fully modernize that system. As Steve Little, former Chairman of the IWUB, will address in more detail in his testimony, the IWUB engaged in an intensive 18 month process with the Corps of Engineers to develop the Capital Development Plan (CDP), a proposal to reform the Corps' project delivery system and to provide an affordable funding mechanism to modernize our inland waterways infrastructure over a 20-year period. The CDP includes a project-by-project cost-sharing cap to provide protection to the IWTF from unreasonable cost escalations and project delays. It also proposes developing a more reliable project cost estimate process to allow for effective management of projects within the identified cost estimates and schedules.

Mr. Chairman, WCI and its members believe that, in the interest of helping our economy today as well as advancing the Nation's economic competitiveness for the future, the right 20-year inland waterway investment plan must achieve a number of objectives, In that regard, we respectfully request the Subcommittee to move legislation in the maritime title of the transportation reauthorization bill or the next Water Resources Development Act (WRDA) reauthorization that would:

\* provide additional revenues to the IWTF in a reasonable and supportable fashion, possibly through user fees assessed in a fair and equitable manner;

\* prioritize the Nation's investments in modernizing the inland waterways system infrastructure using sensible, objective decision criteria;

\* recognize and account for the multiplicity of beneficiaries of the system, only one of which is the barge industry;

\* protect the commercial users that cost-share the construction of these projects from unreasonable project cost escalation and delay;

\* provide a clear delineation of what is and what is not a recapitalization project; and

\* improve the internal procedures and project delivery performance of the Corps of Engineers so that these projects more often will be completed on time and within budget.

The CDP would meet all these objectives in our opinion. We commend this plan to you and your Subcommittee, and we hope it will receive your strong support. The CDP has been endorsed by over 200 organizations from all across the country, including ports, agriculture groups, inland waterways carriers, labor organizations, conservation and environmental groups, the National Association of Manufacturers, and the United States Chamber of Commerce. A list of all of the supporters of the CDP is attached as Exhibit 2.

#### Full implementation of the Inland Waterways Trust Fund raises public awareness and reduces maintenance backlog.

ASCE, 05 (American Society of Civil Engineers, “NAVIGABLE WATERWAYS [D-]” https://apps.asce.org/reportcard/2005/page.cfm?id=36#policy)

Background The U.S. Army Corps of Engineers maintains more than 12,000 miles (19,200 kilometers) of inland waterways, and owns or operates 257 locks at 212 sites on inland waterways. These waterways--a system of rivers, lakes and coastal bays improved for commercial and recreational transportation--carry about one-sixth of the nation's intercity freight, at a cost per ton-mile about half that of rail, or one-tenth that of trucks. Waterways are excellent ways to move large volumes of bulk commodities over long distances. The cargo capacity of a typical barge is equivalent to that of 15 large railroad cars, or 58 semi-trucks. A representative 15-barge tow on a main stem waterway moves the same cargo as 870 trucks stretching 35 miles on the interstate highway system. That same 15-barge tow would require two 100-car unit trains, extending nearly three miles in length. Locks and dams can affect the environment. They slow the natural velocity immediately upriver from their locations, so that organisms adapted to fast-flowing water are replaced by those adapted to slow-flowing water, and dams trap sediments that would otherwise flow farther downstream. More dredging may be necessary to keep the navigation channels open. The 12,000 miles of inland and intracoastal waterways, as do highways, operate as a system, and much of the commerce moves on multiple segments. They serve as connecting arteries, much as neighborhood streets help people reach interstate highways. These waterways are operated by the Corps of Engineers as multi-purpose, multi-objective projects. They not only serve commercial navigation, but, in many cases, also provide hydropower, flood protection, municipal water supply, agricultural irrigation, recreation and regional development.

Conditions Forty-one states, 16 state capitals and all states east of the Mississippi River are served by commercially navigable waterways. Domestic companies operating vessels on U. S. waterways increased 19.6% from 2002 to 2003. Waterway usage is increasing, but the facilities are aging; many Corps-owned or -operated locks are well past their planned design life of 50 years. Of the 257 locks still in use in the United States, 30 were built in the 19th Century, another 92 locks are more than 60 years old. In other words, nearly 50% of all Corps-maintained locks were functionally obsolete by the beginning of 2005. Assuming that no new locks are built in the next 20 years, by 2020, another 93 existing locks will be obsolete--rendering more than 8 of every 10 locks now in service archaic. As the system ages, the infrastructure cannot support the growing traffic loads, resulting in frequent delays for repairs. At the same time, the repairs become more expensive due to long-deferred maintenance. The Inland Waterway Trust Fund, created in 1978, pays half the cost of the construction and major rehabilitation costs for specified federal inland waterways projects. It receives money from a tax on fuel (currently set at 20 cents per gallon) on vessels engaged in commercial transportation on inland waterways. In recent years, there has been a number of major inland waterway infrastructure failures--a few years ago, the entire Ohio River system was closed for a time due to infrastructure breakdowns. The fund earned $106 million in FY 2005, including approximately $91 million paid by the barge and towing industry, and $15 million in interest. The Corps of Engineers received $149 million for construction projects, leaving a balance of approximately $307 million. In FY 2006, the Corps is planning to spend $394 million on current maintenance projects, a sum that will not reduce the backlog of pending repairs that exceed $600 million. In addition, the Bush administration proposed in February to spend $184 million from the trust fund for new construction in FY 2006. The trust fund balance remaining at the end of the year is expected to be $228 million--enough to begin addressing a significant portion of the maintenance backlog. The Corps estimates that it would cost more than $125 billion to replace the present inland waterway system.

Policy Options Congress should amend the Inland Waterways Trust Fund Act of 1978 to allow all funds collected to be used for repair and construction of dams and locks. Congress should then appropriate the full fund balance each year to pay for the cost of rehabilitating the nation's oldest locks. The government needs to set a priority system for restoring locks that have outlasted their design lives, with an initial focus on all locks built in the 19th century. The current federal budget process does not differentiate between expenditures for current consumption and long-term investment. This causes major inefficiencies in the planning, design and construction process for long-term investments. In the interim, Congress must appropriate the full amount in the Inland Waterway Trust Fund to begin reducing the maintenance backlog. The American Society of Civil Engineers (ASCE) supports the creation of a federal capital budget to create a funding mechanism that would help reduce the constant conflict between short-term and long-term maintenance needs. This would help to increase public awareness of the problems and needs facing this country's physical infrastructure, and would help Congress to focus on specific programs devoted to long-term growth and productivity.

### --- XT: Boosts Jobs / Competitiveness Immediately

#### Investments will boost jobs immediately and enhance businesses global competitiveness

Nagle, 11 --- president and chief executive officer of the American Association of Port Authorities (December 2011, Kurt, Industry Today, “Association: American Association of Port Authorities; Port-Related Infrastructure Investments Can Reap Dividends,” vol. 14, no. 3, <http://www.industrytoday.com/article_view.asp?ArticleID=F370>, JMP)

Meanwhile, in the United States, public funding for new navigation channel improvements has all but dried up. Lawmakers focus on reducing the deficit and eliminating appropriation “earmarks” that have traditionally funded federal navigation deepening projects. At the same time, funding for projects already approved and underway is slow, incremental and insufficient.

Insufficient appropriations make it impossible to maintain most federal navigation channels at their authorized and required dimensions. The US Army Corps of Engineers has been commissioned with the responsibility of improving and maintaining the nation’s water access to ports. But while this charge comes from the US government, the federal government is less than supportive. It spends only about half of the tax that it collects specifically directed toward deep-draft channel maintenance. The rest – more than $6 billion since 1986 – has essentially been “disappeared” into the US Treasury while serious dredging needs remain neglected.

This is unfortunate at a crucial juncture. Projects to maintain these critical waterways would create jobs immediately and would provide transportation savings to benefit US businesses. With decreases in the cost of freight transportation, these sectors can enhance their global competitiveness and create more jobs. The American Association of Port Authorities (AAPA) has continually and strongly urged Congress to take action to ensure that 100-percent of the annual amount collected from the Harbor Maintenance Tax (HMT) is utilized to maintain federal navigation channels.

#### Inland waterway transportation infrastructure is cost effective, creates immediate jobs, economic growth, and its critical to agriculture

Transportation and Infrastructure Committee, 11 (September 21, 2011 “HEARING FOCUSES ON ECONOMIC IMPACTS OF AGING U.S. INLAND WATERWAYS SYSTEM,” <http://transportation.house.gov/news/PRArticle.aspx?NewsID=1398>, DG)

Washington, DC – A Congressional hearing today highlighted the economic importance and positive impacts on job creation of the nation’s Inland Waterways Transportation System. Today’s hearing focused on the physical needs of the aging locks and dams as well as challenges to improving the system’s infrastructure, including the increasing amount of time it takes to complete projects. “Transportation savings are a key factor to growing our economy and getting Americans back to work,” said U.S. Rep. Bob Gibbs (R-OH), Chairman of the Water Resources and Environment Subcommittee. “The continual rise in fuel prices means that waterway transportation is a more attractive and cost effective shipping method. But an inefficient transportation system will raise costs and when transportation costs go up, the competitiveness of American-made products on the world market goes down. And that means lost jobs.” Gibbs highlighted the current state of the nation’s inland waterways system, and elaborated on some of the economic impacts created by system inefficiencies. Fifty-seven percent of the structures on the system are more than 50 years old. Thirty-even percent are more than 70 years old. Locks built in the 1830s remain in service today. Age is taking its toll on the reliability of this important mode of transportation. “The system provides freight mobility that otherwise would be costly or even impossible to address,” Gibbs said. “However, navigation outages along the system are increasing. For instance, Ohio River outages have increased from 25,000 hours in 2000 to 80,000 hours today. This trend of increasing outages is expected to continue. While it affects the reliability of the system, it also foretells the likelihood of a major physical failure at one of the structures. A failure could shut down navigation for a few weeks or a few years. The enormous economic consequences would be felt nationwide. “Addressing the infrastructure needs of the inland waterways system is not about economic benefits to a few barge companies. It is about keeping American farms and businesses competitive and growing American jobs,” Gibbs added. Witnesses at today’s hearing provided insight into the economic importance of inland waterways as part of a balanced multi-modal freight transportation network. According to Larry Bray, with the University of Tennessee’s Center for Transportation Research, “The use of inland waterways to support freight transportation saves shippers (and their customers) billions of dollars annually. Moreover, in some cases, the freight that moves by water cannot be moved any other way. In these cases, the value of available barge transportation is literally incalculable.” Bray said that the inland waterways transportation saves shippers and customers over $7 billion every year. Bray described the impacts on the U.S. freight system in the event of a significant disruption of the inland waterways system: “A wholesale diversion of waterway traffic to the nation’s rail network would require roughly 100 thousand additional railroad freight cars and 2,500 additional locomotives.” Gibbs stated that if the amount of cargo that moves by inland waterways was to move by truck, it would require 58 million truck loads. Steve Ebke, representing the National Corn Growers Association, spoke about the importance of the system to the agriculture sector, which accounts for nearly one-third of all freight transportation services in the United States. “Farmers move their crops and receive their inputs by barge, rail and truck,” Ebke said. “The competition among these modes of transportation helps farmers receive the best price for their crops, meet their customers’ demand for timely delivery of products and successfully compete with foreign producers. Without the competition that comes from access to efficient, alternative transportation methods, farmers can pay significantly more to transport their grain. “The American farmer’s international competitiveness has always hinged on the ability to move crops to market. The lower the cost of transportation, the lower the cost of U.S. grain on the world market; thus, the more grain the U.S. is able to sell. South American countries are investing large sums in river infrastructure to upgrade their river systems to be more competitive with the U.S. America cannot afford to allow any aspect of river commerce to deteriorate for fear of losing export market share to South America at the expense of our agriculture industry,” said Ebke. Mike Toohey, President and CEO of Waterways Council, Inc, the national public policy organization advocating a modern and well-maintained system of ports and inland waterways, added, “In this sluggish economy where the unemployment rate is over 20% for construction workers, these projects can put thousands of people to work right away. And, these projects, once completed, will provide billions of dollars of activity for the American economy.” Stephen Little, former Chairman of the Inland Waterways Users Board and president of a company that employs 350 people and operates a fleet of 35 towboats and 1,000 barges, testified about the substantial increases in the amount of time for completing navigation projects compared to years past. “Our nation’s inland waterway modernization challenge going forward is the need to create and implement an improved program for the future. We have an aging system that needs recapitalization,” Little said. “We have a project funding and delivery system that is terribly inefficient, resulting in enormous wasted time and taxpayer dollars. He continued, “In the past our nation could build 26 projects in 10 years on the Upper Mississippi River, 7 lock and dam projects in 9 years on the Illinois River, locks and dams at 10 sites in 12 years on the Tennessee-Tomibigbee Waterway, and seven new projects in 4 to 8 years following WRDA 86. Today it is taking 30 years to build new projects in each of two locations and 14 years to build what it took 3 years to build at another location. This is completely unsatisfactory and is wasting billions and billions of dollars of scarce national investment resources.” Little went on to outline the Inland Waterways Users Board’s recommendations for improving the Corps’ project delivery performance.

### --- XT: Boosts Jobs

#### **Waterway investment creates jobs**

Buchsbaum, 12 – Associate Editor of Coal Age Magazine (2/2012, Lee, “LOCKED Out: Aging Locks and Dams Jeopardize Inland Waterways Is a catastrophic cascading systems failure about to occur along the Ohio River?” <http://www.uppermon.org/news/Other/CA-Locked_Out-Feb2012.html>)

Then again, the other projects on the drawing boards would generate lots of revenue and jobs as well. “In the short term we have $8 billion of family wage construction work being held up. The Corps figures 30,000 jobs per every $1 billion spent, so that’s 240,000 jobs. Those projects are already authorized, but we need federal funding,” said Toohey. The majority of them will be located along the Ohio. Just as importantly, modernization of the waterways will attract more investments along it, and thus more jobs. “Facilities that are located along the waterways, precisely because of their ability to transport goods in a reliable, efficient and environmentally friendly manner, are now in jeopardy, especially new build outs. “Shell Oil Co. stated it wants to locate a plant along the Ohio River. It has announced that it will either be in Ohio, West Virginia or Pennsylvania to take advantage of the crude oil production in the Marcellus shale gas. With the multiplier effect factored in, they estimate this plant, including construction, will create another 17,500 jobs,” said Toohey.

### --- XT: Predictable Funding Key \*\*\*

#### Predictable funding key to efficient inland waterway projects

Steenhoek, 12 – Executive Director, Soy Transportation Coalition (4/18/2012, Mike Steenhoek, “HOW RELIABILITY OF THE INLAND WATERWAY SYSTEM IMPACTS ECONOMIC COMPETITIVENESS”, <http://transportation.house.gov/news/PRArticle.aspx?NewsID=1609>)

One of the arguments our ongoing analysis is examining "how money is allocated is just as important as how much money is allocated." One of the deliverables in our research is comparing major maritime infrastructure projects in other countries and compare them to those in the U.S. - particularly in the ability to complete projects on time and within budget. It is discouraging to observe how many other countries are able to construct their major infrastructure projects much more efficiently than we can. The Panama Canal expansion project is a great example. This $5.25 billion project commenced in 2007 and is scheduled to be completed in late 2014 or early 2015. The expansion project is more imposing and complex than any project we have underway or planned in our inland waterway system, yet all indications are that the project will be completed within budget and only a handful of months behind schedule. Compare this to our Olmsted Lock and Dam project that had an original cost estimate of $775 million and has recently been updated to over $3 billion with a significant time horizon remaining before it will be completed. When examining the various reasons for our repeated cost overruns and project delays, it quickly becomes evident that a major contributing factor is the piecemeal and unpredictable manner in which we finance these projects. Major investments of any nature - particularly infrastructure investments - require a system of funding that provides the money up front in a lump sum, or at least provides certainty that the incremental installments will be allocated. Our current system provides neither. In fact, if I were to design a funding system for infrastructure projects that would guarantee repeated cost overruns and project delays, I would design the system we currently have. It is our hope that we can have a productive discussion with other stakeholders that will result in better stewardship of the scarce resources we have to allocate to these inland waterway projects. The other argument in our ongoing analysts is "a predictably good inland waterway system is better than a hypothetically great one." During this period of fiscal scarcity, we are concerned that our nation is failing not only in providing new and expanded locks and dams, but also in maintaining and preserving our current inventory. Each lock and dam is a link in a larger logistics chain. If one fails, our ability to deliver on customer demands is greatly impaired. Committing to many of these major investment projects and failing to deliver on them, while allowing our remaining locks and dams to fall further into disrepair is a recipe for disaster. A preferable approach may be to first demonstrate stewardship of current locks and dams by providing assurance to users that a lock and dam, in the event of a major failure, will be operational within 48 or 72 hours, for example. If we allocate our resources that way and can provide this degree of predictability to those who utilize our inland waterway system, we will provide a superior message to the one we are currently sending. The Soy Transportation Coalition looks forward to working with other stakeholders in examining this potential approach. Thank you for the opportunity to testify and for exploring this important topic. I would be pleased to answer any questions. Read this original document at: http://republicans.transportation.house.gov/Media/file/TestimonyWater/2012-04-18-Steenhoek.pdf The United States Congress Document CONGDP0020120419e84i00098

Certainty is key to economic benefits

Nelson et al, 09(Arthur C. Nelson, Geoffrey Anderson, Keith Bartholomew, Pamela Perlich, Thomas W., Sanchez, Reid Ewing, researchers and economists for the University of utah, The best stimulus for the money, <http://www.smartgrowthamerica.org/documents/thebeststimulus.pdf>)

Economic impacts and job creation occurs when net new demand or spending is directed towards our nation’s goods‐ and services‐producing industries. The federal government can accomplish this directly by purchasing from industries, or indirectly by reducing taxes (or providing payments) to individuals or firms. The magnitude and timing of total economic impacts varies significantly depending upon the specific composition of the spending. If the policy goal is to create the maximum possible number of jobs as soon as possible, then direct spending is most effective. Tax rebates may or may not be spent, being used to pay down debt or increase savings instead. If the timing and composition of spending is uncertain this will delay and decrease the potential impact. Because of globalization, there is no guarantee that purchases resulting from tax cuts or rebates will necessarily be from domestic producers. In the case of import purchases, the stimulus would effectively add to the trade deficit rather than create jobs in the U.S. Purchases from firms operating in the U.S. will, in contrast, directly create or sustain jobs and the timing of these impacts is much more certain. In the case of transit or road construction projects, the first round of economic impacts, termed direct effects, is composed of the jobs and income of people designing and building the transit lines and roads. The second round, or indirect impacts are generated by purchases made by construction firms to acquire the materials, equipment, and services that are required to complete their projects. These second round purchases set off a sequence of purchases from all the backward linked industries. Input‐output models are routinely used by economists to estimate the cumulative supply chain purchases and the associated cumulative employment and income impacts. The greater the domestic content of the supply chain purchases, the larger the indirect economic impacts. Finally, there are the induced effects, consisting of the cumulative household spending made possible by incomes of workers at the construction site and at all of the firms in the supply chain. As in the case of increasing disposable income via tax rebates, not all additional income will result in consumption of domestic production. Improving the balance sheet position of the household sector (by decreasing debt obligations) certainly has long run aggregate economic effects, but does not contribute to the direct goal of employment creation.15 Another consideration in the evaluation of the impact of stimulus spending is the degree of excess capacity in the economy. If labor markets are tight and industrial sectors are operating at near capacity, the additional demand will introduce bottlenecks and inflationary pressures. This is surely not the case in the current circumstance, especially in the construction sector, which has borne much of the brunt of job losses in the current economic downturn. In the current economic environment, transportation infrastructure projects will reduce unemployment, not contribute to inflation.

### Solvency: Capital Development Plan

#### The Capital Development Plan ensures economic stability, environmental benefits, and long term prosperity for both waterways and the US.

Woodruff, 10 **–** Director of Government Affairs, Kirby Corporation and director of the American Waterways Operators(5/6/2010, Matt Woodruff, “Statement of Matt Woodruff on behalf of Kirby Corporation before the Committee on Environment and Public Works, United States Senate” http://www.americanwaterways.com/index/Matt\_Woodruff\_Testimony\_5610.pdf)

Chairwoman Boxer, Ranking Member Inhofe, committee members and staff, I am Matt Woodruff, from

Houston, TX. I work for Kirby Corporation, the nation’s largest operator of inland tank barges. We operate throughout the inland waterway system from the Gulf Coast to the Mississippi River and its tributaries, including the Ohio and Illinois Rivers. I am here today representing Kirby, but wish to point out that I am a member of the Inland Waterways Users Board, the committee established in WRDA ’86 to advise the Corps and Congress on matters related to construction on our inland waterways. I am also the General Counsel of the Waterways Council, Inc. and a director of the American Waterways Operators. I serve as an active member, officer or director of several regional waterways associations. Our inland waterways are a national treasure. Low cost waterways transportation helps our farmers andmanufacturers stay competitive in tough world markets. When you talk about the future of the waterways, you are talking about the future of a large segment of our economy. Today, I want to tell you about a 20-year plan to keep our waterways reliable and bring billions of dollars in benefits to our economy, creating and maintaining a host of jobs along the way. We need this committee’s help for this vision to become a reality. In addition to being the most cost-efficient way to transport the bulk commodities that are the building blocks of our nation’s economy, barge transportation is the greenest, safest and most energy efficient mode of surface transportation. Let me give you some statistics to back up that claim:

A truck can move a ton of cargo 155 miles on a gallon of fuel. A train can move that ton 413 miles. A barge will move it 576 miles on that same gallon of fuel.

Barges have the lowest CO2 emissions. Moving cargo by rail generates 39% more CO2 than barges. Moving that same cargo by truck generates 371% more.

A typical 15 barge river tow can take 1050 truckloads of cargo off the highways. That same cargo would fill 216 rail cars and require 6 locomotives to move them.

A member of the public is 125 times more likely to be injured in a train accident or over 2,000 times more likely to be injured in a truck accident than in a barge accident.

If the cargo transported by barges was instead transported by trucks on our interstates, heavy truck traffic would nearly double. Put it all on trains and rail traffic would increase by 25%. That only tells part of the story, since that traffic would be concentrated in certain regions of the country, causing far worse problems in key transportation hubs. Attached to my written testimony are materials summarizing these and other facts related to barge transportation.

America without barges would be a more congested, polluted, costly and dangerous place. In recent years, our inland waterways infrastructure construction projects have been underfunded, over budget and years past their planned completion dates. We have spent the surplus in the Inland Waterway Trust Fund but have too little to show for our investment. We place much emphasis on starting projects, but very little on finishing them.

We must fix the system. An ill-advised lock tax was proposed and we applaud Congress for dismissing that idea. Against this backdrop, several years ago the senior leaders of our industry began to meet with the leadership at the Army Corps of Engineers and ultimately decided to put a team together to search for a comprehensive solution to the challenge that faces us. The team, comprised of experts from within the Corps and members of the inland waterway industry, spent nearly a year and a half addressing this challenge. I have here a copy of the team’s final report, which on April 13th was unanimously adopted by the Inland Waterways Users Board and transmitted to the Assistant Secretary of the Army for Civil Works and the Congress. This report lays out a comprehensive solution to our inland waterways infrastructure challenges.

We extensively reviewed the Corps project delivery system. We recommended a set of improvements, some of which are already being implemented, that will help bring future projects in on time and on budget. Our goal is to have an 80% confidence level that the price tag put on a project when it is authorized by Congress is in fact the price it can be built for.

We developed a realistic, real-world budget. The $380 million per year budget for new construction and major rehabilitation is in line with funding levels in recent years.

We apply that budget to a dynamic 20-year construction plan that prioritizes projects based on risk and consequences of diminished future performance. The plan focuses on spending money each year on only those projects that can be efficiently funded with the available funds. While this means some vital projects may have to wait a few years to be started, these projects will still be finished far sooner than if we maintain the status quo. This is a critical feature of the plan. If projects don’t get all the money they need when they need it, we cannot accomplish all we have to do with the resources that will be available. This means we will have to find a mechanism to smooth out some of the vagaries of the annual appropriations process.

We looked at where the money would come from. We recognized this program will require a level of investment greater than current revenues entering the trust fund will support under the current system, so we propose a 30-45% increase in the fuel taxes currently paid by industry. We also propose adjustment of certain elements of the cost sharing formula to better reflect the multiple beneficiaries of these projects and to stop placing an undue share of the burden of rebuilding the system on just one group of users.

I am happy to report that water resources interests all across the country have signed on as endorsers of this plan. Our message to Congress is that we are willing to accept this level of tax increase if it is part of this comprehensive plan to ensure the future reliability of the system.

What are **the benefits** of this plan? We should finish 25 projects in the next twenty years, instead of 6 if we maintain the status quo. At a minimum, we should avoid between $350 million and almost $1.2 billion in project cost growth. We also will recognize at least $2.8 billion in benefits from these projects that would be foregone if the projects’ completions were delayed. For all of these reasons, I respectfully request that this committee join more than 200 companies and associations and embrace this plan and approve legislative language this year that will allow it to be implemented.

I would be happy to address any questions you might have.

### --- AT: Capital Investment Plan Bad (Darcy)

#### The capital investment plan is thorough and developed jointly by industry and government --- government is ignoring transportation experts

Waterways Journal, 11 (2/7/2011, Editorial, “Objections Stifle Plan To Improve Infrastructure,” <http://www.waterwaysjournal.net/news020711.html>, JMP)

In mathematics circles it is said that the shortest path between two points is a straight line. Unfortunately, there are no straight lines in government, only winding, unpredictable byways.

The disappointing announcement with which we began this column was contained in a December 21 letter in which Jo-Ellen Darcy, assistant secretary of the Army (Civil Works), outlined four pages of objections to the long-term, infrastructure investment plan to improve waterways. In the letter to former Rep. James Oberstar (D-Minn.), who was then chairman of the House Transportation and Infrastructure Committee, she wrote that the U.S. Army Corps of Engineers “has serious concerns with several of the major recommendations” of the plan.

The Corps, she said, doesn’t like the idea of exempting waterway construction from the present federal/industry cost-sharing scheme because it would transfer responsibility from users to general taxpayers. “Such a major shift of costs,” she said, “is inconsistent with the user-pay principle that helps to guide Civil Works investment decisions.” And they don’t like the recommended 30–45 percent increase in the present 20-cents-per-gallon fuel tax. The revenue increase would be insufficient, she said.

We suggest they find a new principal for guiding their investment decisions. The administration wants to continue to push the idea of user fees.

We remind Darcy, et al, that what was (and still is by many) considered to be a solid, thorough plan, was developed jointly in an industry-government effort, which included many Corps officials. The development of this plan has been going on for a considerable length of time. Why is it that these objections were not made known and ironed out before? The reason, we believe, is politics.

Apparently many in government do not buy the idea that our nation is in deep trouble, despite multi-trillion-dollar debt. Their conclusions being otherwise, they do not move quickly to fix obvious problems that could, in fact, improve employment levels and improve the economy. One reason for the reluctance to invest in infrastructure is that government has become so cumbersome that those in it cannot see the forest for the trees.

On one hand, federal agencies tout the value of water transportation to our nation’s economic well being; and on the other, administration after administration erects obstructions to getting on with the business of proper waterway maintenance and improvement. Government is stumbling and our country is tumbling economically because agencies are tripping over each other and administrations insist upon marching to their own drum. They ignore transportation experts.

According to Cornel Martin, president and chief executive officer of Waterways Council Inc., who expressed disappointment over rejection of the investment plan, “the plan enjoys wide support, and has generated no vocal opposition,” he said.

Martin has indicated numerous times in the past that water transportation is “our nation’s most environmentally sound, energy efficient and congestion-relieving mode of transportation.” That conclusion is well documented.

It is shameful, at this late date, to learn (according to Darcy) that the Corps objects to the very plan it helped develop. Or is it just the political wing of the administration that objects?

### Solvency: Wave4 Act

#### Wave4 establishes an investment strategy that comprehensively improves inland waterway infrastructure

Whitfield & Costello, 12 -- \*Chairman of the Subcommittee on Energy and Power, and \*\*\*Senior Member of the Transportation and Infrastructure Committee (3/30/2012, “WHITFIELD, COSTELLO FILE LEGISLATION TO STRENGTHEN NATION’S INLAND WATERWAYS” <http://www.costello.house.gov/press/2012/mar30.shtml>)

WHITFIELD, COSTELLO FILE LEGISLATION TO STRENGTHEN NATION’S INLAND WATERWAYS

WASHINGTON - U.S. Rep. Ed Whitfield (KY-01), Chairman of the Subcommittee on Energy and Power, with Rep. Jerry Costello (D-IL-12), a senior member of the Transportation and Infrastructure Committee, today filed the Waterways Are Vital for the Economy, Energy, Efficiency, and Environment Act of 2012 (WAVE4 Act) with bipartisan co-sponsorship. This Act will ensure safe, dependable, cost-effective, and environmentally sustainable navigation on our nation’s inland waterway system.

“Efficient and reliable transportation of goods on our inland waterways is essential to economic development, job creation, and remaining competitive in the global marketplace,” said Rep. Whitfield. “Our aging infrastructure jeopardizes efficient waterborne commerce and highlights the need for the WAVE4 Act that will implement a comprehensive plan to improve project management and put in place an objective investment strategy that will prioritize our infrastructure needs.”

Rep. Costello, lead Democratic co-sponsor, said, “This legislation represents a comprehensive effort among key stakeholders to more efficiently use the resources dedicated to improving our inland waterway system. Importantly, industry has committed to paying more to meet the maintenance challenges we face, and addressing how projects are prioritized should be a part of this process. We must continue the dialogue on how we accomplish these goals – our future economic growth depends on it.”

Other co-sponsors include Rep. Robert Aderholt (R-AL-04), Rep. Russ Carnahan (D-MO-03), Rep. John Duncan (R-TN-02), Rep. Tim Johnson (R-IL-15), and Rep. Terri Sewell (D-AL-07).

“The people in Missouri understand the importance of our inland waterways,” said Rep. Carnahan. “Billions of dollars in trade and transport are conducted every year on the river, making businesses more efficient and keeping vehicles off our roads. Inland shipping is a vital part of our transportation infrastructure and must be properly maintained for our economy to continue growing. I support this good start towards ensuring that crucial maintenance is completed that allows for full utilization of our rivers.”

Rep. Johnson said, “As a member of the Committee on Transportation and Infrastructure, I am proud to cosponsor Mr. Whitfield’s bill as it addresses the critical issues of getting Illinois’ corn, soybeans, and coal to other markets in the United States and around the world. Without this crucial waterway system, Illinois exports would not be able to export the goods that drive our economy with billions of dollars in revenue. I look forward to working with my colleagues on both sides of the aisle to bring this important legislation through committee, for consideration on the Floor of the House of Representatives.”

The WAVE4 Act requires, among other things, the use of objective criteria for the prioritization of essential construction and major rehabilitation projects and protects against cost overruns.

Additionally, it revises the current cost sharing structure for inland waterways projects, reforms the Army Corps of Engineers internal project delivery process, and calls for additional contributions from the waterways industry to pay for these vital infrastructure investments.

With 12,000 miles of commercially navigable channels, and 240 lock sites, the inland waterways system moves commerce to and from 38 states, serves industrial and agricultural centers and facilitates imports and exports at gateway ports.

Every year, roughly 624 million tons of cargo transits the inland waterways, valued at nearly $70 billion.

#### Wave4 will create hundreds of thousands of jobs and boost US econ.

Waterways Council, 12 (5/9/2012, Waterways Council, “Support WAVE 4: Waterways are Vital for the Economy, Energy, Efficiency, and Environment Act of 2012 (H.R. 4342): Invest in America’s Inland Waterways Transportation System” <https://docs.google.com/viewer?a=v&q=cache:4tT3yAksgUIJ:www.waterwayscouncil.org/index/capitalplansupport.pdf+&hl=en&gl=us&pid=bl&srcid=ADGEESglGtYSHFLI3WUCbTyCXARs0Iy0EVCHOBmjpgYDXYEfMAjvNANGC4aNNuPAlTUn5zVEo8PT_PbwGdMHwZoRLVHjptQarVOgb_GYkxgEstv7wgOi9J_5e-cGFFbbLJTem6N0IhRI&sig=AHIEtbTBVEJDU-oTYaqbF2pYYT9B9Y3Asg>)

This bill incorporates the elements of the

Inland Waterways Capital Development Plan

Invest in America’s Inland Waterways Transportation System

Benefits to America

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

A Consensus Plan to Improve Inland Waterways Navigation Infrastructure

Business leaders and the U.S. Army Corps of Engineers worked together for 18 months to develop a comprehensive, consensus package of recommendations to improve the continued vitality of this critical system. The Capital Development Plan, unanimously endorsed by the congressionally established Inland Waterways Users Board, and included in the WAVE 4 bill (introduced March 30, 2012) will:

Prioritize the completion of navigation projects across the entire system;

Improve the Corps of Engineers’ project management and processes to deliver projects on time and on budget;

Reform project cost allocations;

Deliver 25 modernization projects and $8 billion of job creation;

Recommend an affordable user fee funding mechanism to meet the system’s needs, and Realize a sustainable annual appropriation of $380 million.

The Plan represents a new approach to meet the longstanding need for efficient delivery and timely completion of critical projects and sustainable funding for the Inland Waterways Trust Fund. The nation’s transportation system and taxpayers would benefit from the completion of essential navigation infrastructure and the containment of cost overruns.

Recommended Reforms

The proposal would:

Preserve the existing 50% industry/50% federal cost-sharing formula for new lock construction and major lock rehabilitation projects costing $100 million or more.

Adjust the current model to provide 100% federal funding for dam construction and major rehabilitation and smaller lock rehabilitation projects, recognizing the value derived by other beneficiaries from dams and the pools created by dams.

Include a cost share cap on new lock construction projects to incentivize keeping projects on budget and prevent shippers from bearing the burden of paying for unreasonable cost overruns. This will strengthen the ability of the Inland Waterways Trust Fund to fund more priority projects in the pipeline.

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

Endorsements

The Board of Directors of The American Waterways Operators, the national trade association for the American tugboat, towboat and barge industry, voted to authorize AWO to advocate before the Administration and Congress in favor of the recommended plan.

The Board of Directors of the National Waterways Conference, Inc., the national organization advocating for the enactment of common-sense policies recognizing the widespread public benefits of our nation’s water resources infrastructure, voted unanimously to support the plan.

The Board of Directors of Waterways Council, Inc., the national public policy organization advocating a modern and well-maintained national system of ports and inland waterways, voted unanimously to support the recommendations of this industry-Corps joint effort.

#### Wave4 transforms the Capital Development Plan to revolutionize our inland waterways so they boost US exports, competitiveness and economy.

Williams, 12 (4/17/2012, Mike Williams, “Inland Waterways Capital Development Plan Introduced” <http://www.naeda.com/GovernmentRelations/LegislativeNewsUS/tabid/80/ctl/details/itemid/2256/mid/455/inland-waterways-capital-development-plan-introduced.aspx>)

Inland Waterways Capital Development Plan Introduced

Categories: U.S. Legislatitive Issues, Government News, Top Stories, Legislative & Regulatory News |

Congressman Ed Whitfield (R-KY) has introduced a bill (H.R. 4342) in the House aimed at modernizing the infrastructure on the inland waterways system. Known as “WAVE 4: Waterways are Vital for the Economy, Energy, Efficiency, and Environment Act of 2012. This legislation will transform the Inland Waterways Capital Development Plan into law according to the Waterways Council Inc. (WCI).

The Capital Development Plan, when passed and signed into law, will apply objective criteria to prioritize essential construction and major rehabilitation projects, revise current beneficiaries’ cost-sharing for these projects, reform the Corps of Engineers’ internal project delivery process, and suggest a revenue enhancement – a 30 to 45% increase in the existing diesel fuel tax the navigation industry pays – to fund vital infrastructure investments that return so much to the American economy and to consumers. WCI believes this legislation will create American jobs, enable growth in U.S. exports, and continue to fuel the economic engine that is the waterways.

#### Wave4 will boost jobs, U.S. exports and spur the economy

JOC, 12 (3/30/2012, Journal of Commerce Online, “Rep. Ed Whitfield and Co-Sponsors Introduce Wave4 Inland Waterways Infrastructure Investment Bill, Waterways Council, Inc. Applaudes Move”, <http://www.joc.com/press-release/rep-ed-whitfield-and-co-sponsors-introduce-wave4-inland-waterways-infrastructure-inves>)

Arlington, VA – Waterways Council, Inc. (WCI) applauds Congressman Ed Whitfield of Kentucky (R-KY), along with co-sponsors Rep. Jerry Costello (D-IL), Rep. John Duncan (R-TN), Rep. Tim Johnson (R-IL), Rep. Robert Alderholt (R-AL), Rep. Terri Sewell (D-AL) and Rep. Russ Carnahan (D-MO) for their vision and leadership in introducing a bill (H.R. 4342) to modernize the lock and dam infrastructure on the inland waterways system. Known as “Waterways are Vital for the Economy, Energy, Efficiency, and Environment Act of 2012” — or WAVE4, this legislation incorporates the elements of the Inland Waterways Capital Development Plan. The bill will address the critical needs of the inland waterways system, create American jobs, enable growth in U.S. exports, and continue to fuel multiple economic benefits that our waterways generate. The Capital Development Plan applies objective criteria to prioritize essential construction and major rehabilitation projects, revises current beneficiaries’ cost-sharing for these projects, reforms the Corps of Engineers’ internal project delivery process, and suggests a revenue enhancement – a 30 to 45% increase in the existing diesel fuel user fee the navigation industry pays – to fund vital infrastructure investments that return so much to the American economy and to consumers. “We thank Congressmen Whitfield, Costello, Duncan, Johnson, Alderholt, Sewell and Carnahan for their strong leadership in addressing the critical needs of the inland waterways system. The present business model for modernizing our lock and dam infrastructure is broken, with too few lock and dam projects being built on time and on budget. Recognizing the failings in the current system, this WAVE4 legislation will modernize our essential inland navigation infrastructure and in so doing will benefit the U.S. agricultural sector, our construction industry, our energy sector, our environment, our economy, and all the beneficiaries of the waterways system,” said WCI President/CEO Michael J. Toohey.

#### Wave4 is a catalyst for massive US transportation infrastructure improvements

Alexander, 12 (4/4/2012, Tim Alexander, “WAVE-4 would spur waterway system improvements in U.S.” <http://www.farmworldonline.com/news/NewsArticle.asp?newsid=14412>)

WASHINGTON, D.C. — Legislation sponsored by U.S. Rep. Ed Whitfield (R-Ky.) intended to ensure safe, dependable, cost-effective and environmentally sustainable navigation on the U.S. inland waterway system was filed last Friday, with bipartisan support.

The Waterways are Vital for the Economy, Energy Efficiency and Environment Act of 2012 (WAVE-4) requires the use of objective criteria for the prioritization of major construction and rehabilitation projects, including lock and dam upgrades, according to Whitfield, who is chair of the House Subcommittee on Energy and Power.

The bill also seeks to fund river infrastructure projects by revising the current cost-sharing structure through an increase in the barge fuel tax operators are assessed – a condition waterway users are supporting – and revising the U.S. Army Corps of Engineers’ project delivery process.

“Efficient and reliable transportation of goods on our inland waterways is essential to economic development, job creation and remaining competitive in the global marketplace,” Whitfield stated. “Our aging infrastructure jeopardizes efficient waterborne commerce and highlights the need for the WAVE-4 Act, that will implement a comprehensive plan to improve project management and put in place an objective investment strategy that will prioritize our infrastructure needs.”

If passed, WAVE-4 would more than double the revenue collected through the barge tax. It would impose the first increase in the barge tax in 17 years and would not impose tolls on barges moving through locks.

“This legislation represents a comprehensive effort among key stakeholders to more efficiently use the resources dedicated to improving our inland waterway system,” said Rep. Jerry Costello (D-Ill.), a senior member of the House Transportation and Infrastructure Committee. “Importantly, industry has committed to paying more to meet the maintenance challenges we face, and addressing how projects are prioritized should be a part of this process.”

Illinois’ future economic growth depends on the passage of WAVE-4, according to Costello and fellow Rep. Tim Johnson (R-Ill.). “As a member of the Committee on Transportation and Infrastructure, I am proud to cosponsor Mr. Whitfield’s bill, as it addresses the critical issues of getting Illinois’ corn, soybeans and coal to other markets in the United States and around the world,” he said.

“Without this crucial waterway system, Illinois exports would not be able to export the goods that drive our economy with billions of dollars in revenue,” he continued, adding he is anxious to advance the legislation through committee for consideration by the full House.

Paul Taylor, First District director and vice president of the Illinois Corn Growers Assoc. (ICGA), identified passage of WAVE-4 as one of three top legislative priorities for the organization in 2012, along with passage of a new farm bill and ethanol considerations.

He explained WAVE-4 is similar to the Water Resources Development Act (WRDA), for which Congress failed to authorize funding, with the major difference being who pays for the majority of infrastructure improvements on the upper Mississippi, Illinois and Ohio rivers.

“What we ran into (with WRDA) was a change in the political climate, in that (Congress) was mandated to cut taxes and government,” Taylor said. “Out of the WRDA, the Waterways Council – which is made up of shippers, importers, the grain groups and unions – came back to Congress with a proposal that involves a barge fuel tax of 6 cents.”

With many conservative Republicans swearing a “no new taxes” oath, including Whitfield and two other backers of WAVE-4, Taylor and other supporters realize the legislation may not win approval this year. Complicating matters is opposition to the bill because it limits the use of revenue generated from the fuel tax to new locks and repairs totaling $100 million or more; cheaper lock repairs and project costs would still be footed by taxpayers.

Adding an election year to the mix erects yet another barrier to the bill’s passage, according to Taylor. “Even during difficult times things have to be done to maintain infrastructure. At some time and some point, we have to rise above that. Our absolute concern is the long-term economic competitiveness of U.S. agriculture,” he said.

“It illuminates the inability of the U.S. to take direction on a sound transportation policy, and in the future we’re going to lose our competitive advantage with Brazil, Argentina (and others). We think it is important to the economy and well-being of the Midwest to keep the inland waterway system going.”

Taylor said projections show the barge fuel tax would collect well over $100 million in revenue per year for locks and dams and other waterway infrastructure improvement projects. The Corps currently spends approximately $550 million per year in maintenance and construction on the nation’s 11,000-mile inland waterway system. Some 624 million tons of cargo valued at nearly $70 billion traverse these waterways annually.

### Solvency: Obama Plan

#### **Plan boosts investment or inland waterways**

Peabody, 12 – Major General, U.S. Army Corps of Engineers (4/18/2012, John Peabody, “HOW RELIABILITY OF THE INLAND WATERWAY SYSTEM IMPACTS ECONOMIC COMPETITIVENESS”, http://transportation.house.gov/news/PRArticle.aspx?NewsID=1609)

INLAND WATERWAYS CAPITAL INVESTMEMENTS In allocating funds within the civil works program, the Corps gives priority to the work that offers the greatest return to the Nation in achieving economic, environmental, and public safety objectives. For example, this includes providing priority funding for the maintenance of existing high-performing inland waterways. However, current revenues to the Inland Waterways Trust Fund require the Corps to limit spending for inland waterways capital investments. In September 2011, as part of his Jobs Bill proposal, President Obama transmitted a legislative proposal to the Congress to reform the laws governing the Inland Waterways Trust Fund. The proposal would provide an additional source of financing for major new investments in the inland waterways to support economic growth. It includes a new user fee, which would supplement the revenue collected from the fuel tax, and would increase the total paid by commercial navigation users sufficiently to meet their share of the costs of activities financed from the Inland Waterways Trust Fund. CONCLUSION The Army Corps of Engineers will continue to provide engineering analysis, make recommendations, and execute programs and projects to carry out its responsibilities related to the inland waterways. Mr. Chairman and Members of the Subcommittee, this concludes my testimony. I am grateful for the opportunity to testify regarding the benefits and reliability of the water infrastructure system of this nation. I look forward to answering any questions you or the other Members may have.

#### Instituting a new user fee on inland waterways will boost funding for improvements

**Darcy, 11** --- Assistant Secretary of the Army-Civil Works, United States Department of the Army (9/21/2011, Ellen, Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

OVERVIEW

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

ECONOMIC IMPORTANCE

Inland navigation contributes to our nation's economy, and is a factor in some state and local government economic development and job creation efforts. Inland waterways directly serve 38 states in the nation's heartland, the Atlantic seaboard, the Gulf Coast and the Pacific Northwest. Shippers in these states use the inland waterways to move a total of over600 million tons of cargo annually. Some of the inland waterways, such as the Mississippi and Ohio Rivers and the Illinois Waterway, support a high level of commercial traffic.

INLAND WATERWAYS TRUST FUND

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

A balance of funding built up in the IWTF in the years after its authorization in 1978.

However, due to significant capital investment in the inland waterways in recent years, reaching a high of $175 million in outlays from the IWTF in fiscal year 2006 and $171 million in fiscal year 2008, coupled with declining fuel tax receipts, the balance in the IWTF was at risk of being depleted by fiscal year 2009. Generally, since fiscal year 2010 construction and rehabilitation work has been constrained by the level of anticipated incoming fuel tax revenues of approximately $75 to $85 million annually. As these revenues fund the userfinanced50 percent share of capital costs, this has limited the total annual construction program for cost-shared projects to $150 to $170 million per year. A notable exception to the 50/50 cost sharing was provided by Congress under the American Recovery and Reinvestment Act of 2009 (ARRA), whereby there was no IWTF matching requirement. The Army's commitment to inland waterways navigation is evidenced by the fact that, under ARRA, despite the lack of cost-sharing, the Army allocated $420.5 million to ongoing inland waterways capital projects. In addition to construction, the Army spends almost $600 million annually on maintaining the inland waterways infrastructure. Under ARRA, the Army allocated an additional $394 million to operation and maintenance of inland waterways projects.

INCREASING REVENUE TO THE INLAND WATERWAYS TRUST FUND

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

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

INFRASTRUCTURE RECAPITALIZATION

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

CONCLUSION

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

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

### AT: Environment Turns

#### Waterway transportation is net better the environment --- the industry maintains environmental protection standards

WSJ, 11 (1/6/2011, Jennifer Levitz And Cameron McWhirter, The Wall Street Journal Online, “Old Locks Jam River Traffic; Delays on the Water Hurt Shippers, Push Prices Up as Renovation Efforts Stall,” Factiva, JMP)

Some environmental groups are fighting the Obama administration's plan to boost use of waterways to haul freight, arguing that it would further harm already-polluted rivers. "The environmental impact to the rivers involved has been quite devastating over a long period of time," said David Conrad, senior water-resources specialist at the National Wildlife Federation.

River shippers, however, believe "the rivers are more pristine than ever before, with the navigation industry adhering to safety and environmental protection standards that exceed those required by federal law or regulation," said Debra Colbert, spokeswoman for the Waterways Council. "The fact is that transporting commodity freight via our inland waterways is simply the most environmentally sound way to move cargo," she added.

#### Water transportation is comparatively much better for the environment --- transportation by truck emits 371% more CO2 emissions

Toohey, 11 --- President and CEO of Waterways Council, Inc. (9/21/2011, Mike, Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

And, so for over 200 years, our river system has facilitated the affordable, reliable and environmentally friendly transportation of the building blocks of our economy. It has allowed the low cost movement of large bulk commodities in an efficient and timely manner. In fact, a recent study by the Texas Transportation Institute (TTl) found that river transportation is the most energy efficient way to move coal, grain and other agricultural commodities, iron, steel, aggregates, petroleum and chemical products. River barges can move one ton of cargo 576 miles per gallon of fuel. A rail car would move the same amount of cargo 413 miles, while a truck would move the same cargo only 155 miles. The TTl study also found that it would require 216rail cars, or 1,050 large tractor-trailer trucks, to move the same volume of cargo that a typical 15barge tow can move on the river system. Clearly, our roads and highways would be even more congested if this huge volume of cargo was not moving by water.

Environmentally, the TTl study showed that inland barge transportation produces far fewer emissions of carbon dioxide for each ton of cargo moved than trucks or railroads. When comparing emissions per ton-mile, TTl calculated that transportation by rail emits 39% more carbon dioxide, and transportation by truck emits 371 % more carbon dioxide, than transportation by inland barge.

#### Barge transportation is better for the environment than the alternatives

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Avoiding Negative Externalities and Securing Benefits to Other Waterway Users

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

The reduced incidence of negative externalities is a tangible benefit of commercial navigation that is easily recognized, but seldom counted within decision-making processes. Ostensibly, this is because of the uncertainties involved in accounting for the value of reduced exposure to unpleasant outcomes. It is, in fact, a difficult area in which to assign reliable numbers. Still, to ignore the environmental or other quality of life improvements associated with a greater reliance on inland transport also assures getting the wrong policy answer. n8 I, along with many of my colleagues, have worked for more than a decade to remedy this problem, but have achieved only modest progress.

#### Water transportation is the cheapest and most environmentally friendly way to ship freight

McCarville, 12 --- executive director of the Port of Pittsburgh Commission (March 16, 2012, James R., “The Private Sector: Waterways, if maintained, are a cheaper, Earth-friendlier mode of transport,” <http://www.post-gazette.com/stories/business/news/the-private-sector-waterways-if-maintained-are-a-cheaper-earth-friendlier-mode-of-transport-435109/#ixzz1yRgDpZkv>)

High gasoline and diesel prices, record exports and imports and growing concerns about the effects of highway traffic on the environment could represent a competitive advantage for southwestern Pennsylvania -- if we maintain a healthy waterway system.

While barging is the least expensive and most environmentally sensitive way to ship, its public and private benefits are not well understood. A 15-barge tow passing through the Port of Pittsburgh can carry 22,500 tons of cargo, the equivalent of 225 rail cars or 900 tractor-trailers that otherwise might be tearing up our already busy streets.

A recent report by the American Society of Civil Engineers noted that to move that same volume of cargo one mile requires 44 gallons of diesel fuel by barge, 111 by rail and 381 by truck. Moving cargo 100 miles along the waterways can cost less than a penny a ton-mile, a fraction of the costs for road or rail and just a little more than the cost of a first class stamp.

Martin Associates of Lancaster documented that this activity maintains more than 45,000 direct jobs in our 11-county port district and more than 217,000 total jobs. This is a much higher total than it has found in most other ports, including ocean ports, because most of the cargo that comes to Pittsburgh is in the form of raw materials that are processed or manufactured here, adding value to our local economy, rather than just transferring goods made overseas. The locks and dams that support those jobs also provide stable pools of water for industrial cooling, drinking water, fire-fighting, and river recreation and tourism.

While we all recognize that we must become less dependent on foreign oil, reduce our air emissions, reduce highway congestion and control inflation, few possibilities have such a strong public payback as simple investments in our waterway infrastructure.

As shippers become more familiar with the private benefits of moving cargo from highways to waterways, and if government invests wisely in its most effective infrastructure, we will be ready to position southwestern Pennsylvania to capture that growth.

It is the right thing to do, and in the long run we may have no choice if we want America to compete on the world market.

#### Shifting transportation to trucks will create millions of tons of pollution

Mark Critz, U.S. Congressman, June 6 2012, “Critz and Doyle Advocate for Investment in Waterways Infrastructure...Fixing Trust Fund is necessary to repair and modernize region's locks and dams, Critz and Doyle Advocate for Investment in Waterways Infrastructure...Fixing Trust Fund is necessary to repair and modernize region's locks and dams”, Critz.house.gov, <http://critz.house.gov/press-release/critz-and-doyle-advocate-investment-waterways-infrastructurefixing-trust-fund>)

Mr. Critz: Thank you Mr. Doyle, Mr. Visclosky, Chairman for yielding time. I would like to add my voice to Mr. Doyle’s on the issue of the aging state of our nation’s waterways, and the vast shortfalls in funding urgently needed projects. I believe the Chairman has done his best, given the limited funds available in the Trust Fund, and would like to work with the gentleman from New Jersey to find a long term solution to this issue. Consisting of over 230 lock chambers, our Inland Waterways move hundreds-of-millions of tons of cargo annually. To move this cargo on the nation's highways would require an additional 24 million trucks, would cost billions more in fuel costs, and generate millions of tons of pollution. The federal government has invested in this infrastructure for over two hundred years. The locks and dams that are the backbone of this system are built with a 50-year design life, yet many --- for example those on the Monongahela River in western Pennsylvania--- are over 100 years old!

## Addons

### Hegemony Addon / Internal Link

#### Inland waterways are the key to the economy and military power projection

Colonel Donald E. Jackson Jr. March 14 2007, Leveraging the Strategic Value of the U.S. Inland Waterway System, USAWC STRATEGY RESEARCH PROJECT, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA469583>)

Inland waterways present a possible alternative to overland transport that has been underutilized in the past. The EU recognizes and relies upon their existing water highways, committing to a more balanced approach for future transport. The core network links the Netherlands, Belgium, Luxemburg, France, Germany, and Austria via a myriad of easily accessible rivers and canals, carrying cargo such as heavy materials, bulk industrial goods, building products, containers, oversized loads, and waste. Inland waterway transport in the EU has experienced a growth rate of 17% over the past decade. 48 Inland waterways are a strategic asset to the nation, enabling the U.S. to significantly increase economic output in both domestic and international markets, and project military power more rapidly and effectively into the 21 st Century. Over the next 20 years economists estimate that inland navigation will increase by more than 35%. 49 The inland waterway system is a potential resource upon which we can increase the flow of military cargo. Continued application of technology to barge operations and integration of the inland waterway system into the nation’s intermodal system makes this an area ripe for additional development. 50 Waterways already move important national defense resources and other supplies in large quantities for the armed forces. 51 As a mode of transportation, the inland waterway system is quiet, low profile, and off the public radar. 52 12 U.S. Inland Waterways contribute to efficient management on a national level by offering an excellent alternative form of transport for a variety of non-traditional commodities. The inland waterway system is an efficient, cost-effective, and environmentally friendly way to move large volumes of bulk commodities, not requiring a fast transit time, over long distances. Towboats and barges do not compete with trucks and commuters in urban areas. Barging operations continue to improve, allowing more cargo to be moved with less effort. USACE promotes inland waterways as the most efficient mode of freight transportation. Towboats push barges lashed together to form a “tow”. A tow may consist of four or six barges on smaller waterways up to over 40 barges on the Mississippi River below its confluence with the Ohio River. A 15-barge tow is the most common barge configuration. Such tows are an extremely efficient mode of transportation, moving about 22,500 tons of cargo as a single unit. The cargo capacity of a typical barge is equivalent to that of 15 large railroad cars, or 58 semi-trucks. A representative 15-barge tow on a main stem waterway moves the same cargo as 870 trucks stretching 35 miles on the interstate highway system. That same 15-barge tow would require two 100-car unit trains, extending nearly three miles in length. 53 The inland waterway system is a cost-effective mode of transportation, saving shippers and consumers more than $7.8 billion annually compared to alternate transportation modes. 54 Barges transport materials at relatively low cost per ton. The inland and intracoastal waterway system handles about 300 billion ton-miles of cargo annually, or about 18% of all intercity freight ton-miles. 55 This cargo principally includes raw materials and liquid and bulk primary products, like coal, petroleum, chemicals, grain, processed metals, cement, sand, and gravel. 56 It is the primary artery for more than half of the nation’s grain and oilseed exports, over 20% of the coal consumed to produce the electricity we depend upon to run our homes, offices, and industries, and about 22% of domestic petroleum movements. 57 On average, a gallon of fuel allows one ton of cargo to be shipped 70 miles by truck, 420 miles by rail, and 530 miles by barge. 58 The inland waterway system is an environmentally friendly mode of transportation. Inland waterways allow America to realize tremendous savings in fuel consumption, reduced air pollution emissions from fuel combustion, reduced traffic congestion, fewer accidents on our rail lines and highways, and less noise and disruption in our cities and towns. 59 The EU promotes their waterways as an environmentally friendly alternative to road and rail. 60 Waterways offer an alternative to present patterns of transport growth and its reliance on road transport that have become a synonym to congestion and pollution. 61 More efficient operational procedures can provide greater capacity and potentially reduce congestion and the need for additional infrastructure. For example, every year thousands of empty barges move between ports on the 13 inland waterways, thereby underutilizing their potential capacity to transport commodities. 62 A backhaul policy could be implemented through the use of a small penalty tax for moving empty barges along the river, as implemented through governmental policy or a consortium on intermodal transportation. 63 This could encourage inland waterway shippers to exploit new technologies and explore additional transport opportunities. Although not as responsive as the trucking system, it greatly increases the potential value of inland waterways by contributing additional capacity to the overall transportation system. Maximizing new methods of transport, such as container-on-barge, further optimize existing waterway infrastructure without requiring massive new construction projects. Container-on-barge options provide shippers new options of using inland waterways to transit commodity items traditionally moved by other means. In order to be an effective and reliable link in the transportation network, the inland waterway system requires adequate and consistent funding to remain a reliable mode of transport. Unlike road and rail, however, funding for new construction, operations, and maintenance (O&M) is shared by the federal government and commercial inland waterway users. The federal government continues to invest in navigation because of its benefit to the national economy. The distribution of cost between the federal government and the local project sponsor for waterways was established in the Water Resources Development Act (WRDA) of 1986 (Public Law 99-662). The Act established cost-share requirements for inland waterway projects that result in greater financial and decision-making role for non-federal stakeholders. The federal government typically pays 100% of costs associated with feasibility studies and O&M expenses. The Inland Waterway Trust Fund (IWTF), created in 1978, pays half the cost of the construction and major rehabilitation costs for specified federal inland waterways projects. It receives money from a tax on fuel (currently set at 20 cents per gallon) on vessels engaged in commercial transportation on inland waterways. 64 Typically, Congress appropriates funds from the federal general revenue fund (GR) as part of the annual process in the Energy and Water Development Appropriations bill to pay the other 50% of construction costs. 65 Navigation industry groups argue that the current system makes a significant contribution to the national economy and that the aging infrastructure warrants increased investment by the federal government. The USDOT Framework advocates prioritizing timely operations and maintenance projects for inland waterways as a method of maintaining and preserving existing infrastructure. 66 Some taxpayer advocacy groups, however, oppose even current levels of federal investment and argue for a greater share of the financial burden to be borne by the users of these facilities. 67 A possible solution would be to share more of the cost of 14 infrastructure repair with users of the system. The inland waterway system, for example, not only supports navigation but also provides a multitude of recreational opportunities as well as hydroelectric power generation for constituents within their respective watersheds. Currently this public service provides little to no revenue for waterway infrastructure maintenance or construction. Funding needed improvements in the waterway system is a national problem. 68 Effective integration of the U.S. Inland Waterway System is key to expanding the capacity of the national freight transportation infrastructure. Through strategic examination of the entire intermodal transportation system, and a detailed look at the many factors inhibiting the inland waterways from being a preferred route for goods movement, we can determine the best method of integrating the inland waterways system, leveraging them into the nation’s current intermodal transportation system. 69 Traditional methods of overland transport are not easily usurped by inland waterways. The U.S. Inland Waterway System has historically served to move large, bulk cargoes and suffers from recent bouts of unreliability. Decreasing reliability of inland waterways is a factor of increasing age and recent budget constraints that combine to result in increased downtime at commercial lock facilities, both scheduled and unscheduled. USACE reports lock unavailability time has more than doubled since the early 1990s from about 60,000 hours to over 120,000 hours annually. Shippers on inland waterways can generally prepare for scheduled lock maintenance; however, unscheduled lock downtime can seriously disrupt shipment schedules and contract commitments, leaving shippers scrambling for delivery alternatives typically at a much higher cost. 70 Unfortunately, this trend is alarming to shippers and must be adequately addressed to leverage the capacity potential desperately needed to support national freight transportation requirements. The inland waterway system infrastructure requires some modernization and expansion to account for changes in barge technology and capability. The current design and capacity of existing locks do not account for, or take advantage of, advances in barge operations. 71 Lock delays attributed to waiting in line to use the lock are currently over 550,000 hours annually, translating into about $385 million in increased transportation costs. 72 USACE reports that some modernization of the system has been taking place since the 1950s-mainly along the Ohio River-with enlargement or replacement of older 600-foot lock chambers with new 1200-foot facilities that will pass a 15-barge tow in a single lockage. Other principal high volume waterways-the Upper Mississippi, Tennessee, and Illinois Rivers, as well as the Gulf Intracoastal Waterway remain dominated by 600-foot lock chambers. One important trend improving the value and capability of the inland waterway system is the increase, especially since 2000, of container-on-barge transport. Containerization is 15 increasing the adaptability of inland ports to transport large quantities of goods on barges never before thought possible. The European Federation of Inland Ports estimates that further growth in the container sector is likely and inland ports will continue their investment efforts in this field in order to further improve their position in the transport market. 73 Containers can now hold non-traditional cargo such as liquids, perishable (using refrigeration) and non-perishable agricultural products, as well as bulk cargo such as minerals, petroleum, and others. 74 Improved cargo security is an important benefit of containerization. Container on barge is highly developed in Europe. 75 Containers are designed to be modular for easy interchange among transportation modes, allowing cargoes to be moved by the combination of ship, rail, and truck that best meets the needs of shippers and receivers. 76 Containers can hold more when transported by barge since they are not held to same weight limitations as overland transport. Every container transported by barge means one less truck on the highway. Container-on- barge operations save fuel, ease congestion on roads, and can haul hazardous materials or other cargo not suitable for transport through large population centers. Barges facilitate military deployment, moving unit containers and vehicles in a secure manner preventing pilferage and equipment damage associated with fast moving and relatively unguarded transport. Inland waterways are positioned to take some of the lower to moderate value container traffic off the even more congested roadways. The Columbia-Snake River system already has significant container-on-barge traffic, and similar services are growing along the Gulf Intra-coastal and North Atlantic ports. 77

### Energy Security Addon Internal Link

#### Barge transportation will boost energy security --- uses 10 times less fuel than other forms of transportation

Ebke, 11 --- Chairman, Production and Stewardship Action Team, National Corn Growers Association (9/21/2011, Steve, Congressional Documents and Publications, “House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

As the most fuel efficient means of transportation for agricultural commodities, an investment in our waterways infrastructure will help us toward our national goals of energy security and improving our environmental footprint. Barges operate at 10 percent of the cost of trucks and 40 percent of the cost of trains, while releasing twenty times less nitrous oxide, nine times less carbon monoxide, seven times less hydrocarbons, and burning ten times less high-price fuel.

### Aerospace / Wind Energy Addon Internal Link

#### Barges are key to efficient transport of aerospace components and windmill blades and turbines

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Oversized Shipments

Inland barge transportation is also a valuable means of moving overweight or over-dimensioned shipments. Example include massive generators used in both steam-powered and nuclear generating facilities, extremely large bridge components, rocket engine boosters and other aerospace components, windmill blades and turbines, and uncategorized military equipment. n5 In some cases, there are no feasible alternatives to inland navigation, so that the location of activities is wholly predicated on available barge transport. In other cases, modal alternatives, while physically feasible, involve the construction (or reconstruction) of roadway and railroad facilities at tremendous cost for what is often a one-time use. In either case, it is difficult to assign a dollar value on the availability of navigation. Hence, the true value of these inland barge movements is obscured, seldom counted, and almost never incorporated into the benefit-cost calculations used to evaluate infrastructure construction and maintenance costs.

### Hydro Power / Crop Irrigation Addon Internal Link

#### Functioning waterways also contribute to hydro-electric power generation and crop irrigation

**Bray, 11** --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

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

Historically, these "other beneficiaries" have, more often than not, been asked to pay fees as a result of their waterway use. However, very little has ever been done to quantify the magnitude of benefits they enjoy or to ensure that fee payments at least cover the system costs that are incremental to their codependence on the maintenance of predictable channel depths or rates of flows. n9 To date, only navigation users have been asked to demonstrate that their economic contributions are aligned with system expenditures.

### Emergency Preparedness Addon Internal Links

#### Inland Waterways can provide critical medical assistance when other forms of infrastructure are destroyed

Nachtmann & Pohl 2010 (January 14, 2010, Heather & Edward A., both Ph.D. associate professors in the Department of Industrial Engineering at the University of Arkansas, “Emergency Response via Inland Waterways,”

http://ww2.mackblackwell.org/web/research/ALL\_RESEARCH\_PROJECTS/3000s/3008/MBTC%203008.pdf)

Research Motivation

Many emergency operations plans (EOPs) are based on the assumption that all standard

means of transportation will be available and feasible when an emergency occurs. In many cases,

however, the disaster that initiates the EOP may disable emergency vehicles or destroy the roads or

bridges that are vital to responding to the emergency. As transportation security professionals

prepare contingency plans for emergency response, it is important to recognize the resource

offered by the nation’s inland waterways. For many communities, inland waterways can provide

access for equipment and people when other means of transportation are unavailable due to

capacity constraints or destruction. Inland waterways may be especially useful for emergency

medical response in rural areas. Because of limited resources in rural communities, emergency

planners must take an all-hazards approach to emergency planning across large geographical areas.

Inland waterways could be used for medical response to a variety of emergencies across a large

area. For example, there are over 1,000 miles of navigable waterways in the state of Arkansas.

These waterways could be used to assist in response to a catastrophic event such as a New Madrid

earthquake in the northeast corner of the state.

Which types of communities would benefit from waterway-based emergency medical

response?

Communities that are isolated from major population centers may not have access

to the emergency services and medical facilities that are readily available in large

cities. If these types of communities are located near inland waterways, then they

may be candidates for emergency medical response via those inland waterways.

Communities that are large enough to have emergency services easily accessible

and communities that are large distances from inland waterways are less likely to

benefit from waterway-based medical assistance. However, waterway-based

response could prove beneficial to communities that depend heavily on nonwaterway transportation means if disruption occurs to transportation infrastructure such as major interstates or bridges.

What is the possibility of disaster occurrence in the serviceable areas?

Once candidate communities are identified, it is also necessary to identify the

possible catastrophic emergency events that could occur in those areas. Knowing

which communities are likely to have certain emergencies is useful for determining

the feasibility of barge response for that community. This information may be

readily available or may need to be derived. In our case study of Arkansas, for

example, we use historical tornado data to estimate the risk of a violent tornado

occurring in each county.

#### Floating hospitals are empirically proven

Nachtmann & Pohl 2010 (January 14, 2010, Heather & Edward A., both Ph.D. associate professors in the Department of Industrial Engineering at the University of Arkansas, “Emergency Response via Inland Waterways,” http://ww2.mackblackwell.org/web/research/ALL\_RESEARCH\_PROJECTS/3000s/3008/MBTC%203008.pdf)

2.4 Medical Response via Barge

While most barges are typically used for transporting goods along waterways, history

reveals that some vessels have been used to provide medical services. In New York City, a barge

served as a floating hospital, providing free medical and dental care to low income families from

1866 until just recently. Tickets were mailed to eligible families, and the vessel would set sail

during the summer months while children were out of school (New York Times, 1988). Barges

have also been used to provide medical services to the military. During World War I, British troop

casualties were evacuated via floating hospital barges. The slow speed of the vessel actually

proved to be useful for the injured troops, allowing them to recover before arriving at their

destination (Quaranc, 2009).

Even in recent times, the idea of floating hospitals is being put to practical use. Using

marine vessels to provide medical care to disaster victims and the poor is becoming quite common.

In May 2008, victims of the Burmese cyclone received medical care on board three ships set aside

for such a purpose. Each boat was equipped with a clinic room, medicines, and a dental chair

(Swe, 2008). In addition, the humanitarian organization known as Marine Reach owns a floating

hospital that provides services to poor, isolated communities in the Pacific Islands and Southeast

Asia (Marine Reach, 2009). Another example is the 522-foot floating hospital known as the

Anastasis, shown in Figure 4, which cruises the west coast of Africa providing medical services to

impoverished people (Thomas, 2003).

Perhaps the most impressive floating hospital is the USNS Comfort, shown in Figure 5. Comfort

is a 900-foot, ten-deck vessel with 1,000 hospital beds. The ship and her crew assisted with

Hurricane Katrina disaster relief efforts. The vessel is capable of handling all complicated

procedures, with the exception of heart surgery and organ transplant. It has CAT scan facilities,

twelve operating theaters, a blood bank, a dental facility, and even a manufacturing facility for

eyeglasses. It staffs over 1,200 people, and was converted from an oil tanker to a floating hospital

in 1983 (Singh, 2003).

While each of these ships has provided medical services via ocean waters rather than

inland waterways, each vessel represents a practical example of a floating hospital.

### Flooding Addon Internal Link

#### Lack of proper waterways will cause flooding throughout the U.S. and cost us $29 billion a day

BAF no date (no date, Building America’s Future, Levees, Dams, Waterways, <http://www.bafuture.org/key-topics/sub/levees-dams-waterways>)

There are 26,000 miles of commercially navigable waterways and over 79,000 dams located throughout the United States. Over 4,095 dams are "unsafe" and have deficiencies that leave them more susceptible to failure, especially during large flood events or earthquakes (American Society of Civil Engineers, 2009). On an average day, some 43 million tons of goods valued at $29 billion move on the nation’s interconnected network of ports, roads, rails and inland waterways (U.S. Chamber of Commerce, 2008). These are critical infrastructure systems that, if not repaired and maintained, will cause catastrophic consequences by flooding towns, cities, and farmland in virtually every region of the United States. Hurricanes Katrina and Rita showed the world what happens when our levees are not built to handle the appropriate levels of water. Had we invested more just a few years before, we may have prevented the billions in costs following that disaster from having to have been spent and saved thousands of lives. As Benjamin Franklin was quoted as saying: “An ounce of prevention is worth a pound of cure.”

### Disaster Relief Addon Internal Link

#### Inland water ways are critical in disaster relief operations

UTC, 11 (August 2011, The University Transportation Centers Program is administered by the U.S. Department of Transportation's Research and Innovative Technology Administration. (RITA) coordinates the U.S. Department of Transportation's (DOT) research programs and is charged with advancing the deployment of cross-cutting technologies to improve our Nation’s transportation system.  “Emergency Response via Inland Waterways.” <http://utc.dot.gov/publications/spotlight/2011_08/html/spotlight_1108.html>) DG

**A catastrophic disaster can disable or destroy the very same vehicles, roads, and bridges that are needed to provide emergency response. But** for many communities, **inland waterways may provide access to equipment and emergency services when other means of transportation are unavailable.** A goal of the Mack-Blackwell Rural Transportation Center (MBTC) is to enhance community emergency preparedness and disaster relief efforts by developing an index to help emergency planners evaluate the feasibility of incorporating inland waterways into their emergency response planning. **Inland waterways may be** especially useful for rural emergency planners **who must cover a large geographical area with limited resources. Inland waterways are a tremendous asset to the United States, providing an economical and environmentally sound mode for moving cargo.** The U.S. Army Corps of Engineers is responsible for nearly 12,000 miles of commercial, navigable U.S. inland and intracoastal waterways–the Mississippi/Ohio River System, the Gulf Intracoastal Waterway, the Intracoastal Waterway along the Atlantic Coast, and the Columbia-Snake River System in the Pacific Northwest. Inland and intracoastal waterways serve 38 States with 192 commercially active lock sites.1 Map courtesy of U.S. Army Corps of Engineers U.S. Inland and Intracoastal Waterway System Domestic **waterborne trade over inland waterways amounted to 522.5 million short tons in 2009 alone.2 The Nation's waterways are used to transport approximately 20% of America's coal, 22% of U.S. petroleum and** 60% of the Nation's farm exports.3 Historically, **tugs and barges have been used to provide emergency response services. As part of recovery efforts in the wake of the January 2010 Haiti earthquake, tugs and barges participated in the vast international relief operation, carrying large volumes of food and supplies as well as aid to help ease shortages. MBTC has developed a Waterway Emergency Service** (WES) **index to measure the potential of individual counties to benefit from inland waterway emergency response. The WES index consists of seven factors: Accessibility to navigable inland waterways, Population demand, Social vulnerability, Risk of disaster, Limited access to medical services, Limited access to resources, and Limited access to transportation modes.** Researchers calculated the WES index values for four States along the lower Mississippi River: Arkansas, Louisiana, Mississippi, and Tennessee. The map graphically depicts WES index results in the four-state region by colorcoding each county's potential to benefit from inland waterway emergency response.**4 Among the 145 counties with access to the Mississippi River, more than 73% had at least a medium level of potential to benefit from emergency response via inland waterways.** **Distance from the public ports on the lower Mississippi River precluded 171 counties in the four-state region from use of inland waterway emergency services.** In addition to the WES index, MBTC research has led to the development of a systematic planning strategy for utilizing the inland waterway transportation system to provide emergency response. The research team is currently developing an optimization-based methodology to determine the number of barges required to provide the best possible inland waterway-based emergency support. The methodology will also help emergency response planners determine the optimal starting location of available barges to ensure that the communities with the potential to benefit from emergency response via inland waterways have maximum coverage.

## Off Case Answers

### 2ac States CP

#### The counterplan is clearly unconstitutional

Toohey, 11 --- President and CEO of Waterways Council, Inc. (9/21/2011, Mike, Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System," Factiva, JMP)

Mr. Chairman, the inland waterways system is one of this country's greatest assets. In fact, that system has been recognized as a matter of fundamental Federal responsibility and stewardship since the earliest days of our country's existence. In advocating for the U.S. Constitution's adoption, James Madison (in the Federalist No. 14) spoke of the general commercial advancement of the country, in furtherance of which "an interior navigation on our eastern side will be opened throughout, the whole extent of the thirteen states." Alexander Hamilton (in the Federalist No. 11) plainly pointed out that, without a Federal governing power, commercial "intercourse would be fettered, interrupted, and narrowed by a multiplicity of causes ... ". Almost immediately after our u.s. Constitution was approved, one of the initial actions of the first Congress was enactment of legislation providing for Federal upkeep of the Nation's navigational aids. Twenty-five years later, the U.S. Supreme Court ruled definitively in its landmark Gibbons v. Ogden decision that "the power of Congress comprehends navigation, within the limits of every State in the Union ... ". And, since Gibbons, the Supreme Court has repeatedly upheld this preeminent need for, and role of, the Federal Government to, as it discussed in an 1883 case, " ... improve the navigation of rivers by dredging and cleaning them, and making new channels and jetties, and adopting every other means of making them more capable of meeting the growing needs and extending demands of commerce."

#### This is a clear federal responsibility --- government has two centuries of involvement in the area

Stern, 11 – Analyst in Natural Resources Policy (10/17/2011, Charles, “Inland Waterways: Recent Issues and Proposals for Congress” <http://natural-resources-reports.blogspot.com/2011/10/inland-waterways-recent-proposals-and.html>)

Inland waterways are a significant part of the nation’s transportation system. Because of the national economic benefits of maritime transport, the federal government has invested in navigation infrastructure for two centuries. As a result, barge shipping has received significant support through federal funding for operational costs, capital expenditures, and major rehabilitation on inland waterways. Since the Water Resources Development Act of 1986, expenditures for construction and major rehabilitation projects on inland waterways have been cost-shared on a 50/50 basis between the federal government and users through the Inland Waterway Trust Fund (IWTF). Operations and maintenance costs for inland waterways typically exceed these construction costs, and are a 100% federal responsibility pursuant to WRDA 1986.

Future financing for the inland waterway system is uncertain. The IWTF is currently supported by a $0.20 per gallon tax on barge fuel, but the trust fund’s balance has declined significantly in recent years. Without major changes to the current user revenue stream or the federal/non-federal cost-share requirements for construction, spending on inland waterway projects may be limited.

Previous administrations have recommended replacing the fuel tax with one or more user fees that would increase revenues beyond their current baseline. However, Congress and industry interests have rejected these proposals. In 2010, the Inland Waterways Users Board (IWUB), a federal advisory committee advising the U.S. Army Corps of Engineers on inland waterways, endorsed an alternative proposal that is supported by many barge industry interests. The proposal would increase the fuel tax by $0.06-$0.08 per gallon, but would also require an even greater increase to the federal share of inland waterway costs (i.e., increased costs borne by the federal government). Recently, the Obama Administration included its own proposal among the recommendations to the Joint Committee on Deficit Reduction. It would increase user fees by levying a two-tiered system of annual fees on waterway users: a fee for all vessels operating on inland waterways, and a separate (greater) fee on vessels that use locks. The Administration estimated that the fees would raise $1.1 billion in new revenue over 10 years. These revenues would be in addition to those received under the IWTF fuel tax.

The user industry (including the barge industry and agricultural groups) argues that changes are necessary to shore up the trust fund, improve the deteriorating state of inland waterway infrastructure, and distribute cost responsibilities more equitably among those who benefit from the system (i.e., more funding by federal taxpayers). They argue that these changes would support jobs for a vital component of the nation’s transportation mix. The Obama Administration agrees that major changes are needed to meet new infrastructure needs, but argues against increased costs for the federal government. Some taxpayer and environmental advocacy groups call for an increased share of waterway costs to be borne by users (i.e., a decreased share for the federal government), and have also suggested that operations and maintenance costs should also be a user responsibility.

Congress may consider whether to increase the overall level of inland waterway funding in the future (and by what amount); the appropriate type of user fee to fund the nonfederal share of these costs (fuel taxes, lockage fees, etc.); and the division of cost-share responsibilities between the federal government and commercial users for both construction and operations and maintenance costs.

#### **Federal action is key to effective coordination**

DOT 2011 (United States Department of Transportation, April 2011, “America’s Marine Highway Report to Congress”, <http://www.marad.dot.gov/documents/MARAD_AMH_Report_to_Congress.pdf>”)

External benefits of America’s Marine Highway that are often unrecognized in current transportation planning and investment decisions belong to the following categories: 14

􀂃 Support for new and existing vessels and mariner jobs that are useful to the nation in times of both peace and national emergency;

􀂃 Immediate relief of surface transportation congestion, particularly on routes that provide landside access to urban ports;

􀂃 Abundant and cost-effective new freight capacity;

􀂃 Reductions in highway and bridge maintenance and repair costs;

􀂃 Creation of a diverse and more resilient transportation system;

􀂃 Improved environmental sustainability of the surface transportation system, including reduced per ton-mile energy consumption and emissions; and

􀂃 Benefits to public safety and security.

All of these benefits are in addition to the low-cost freight and passenger services that water transportation has historically provided and which are already considered in private decisions concerning the use of the Marine Highway. These external benefits are described in the sections of this report immediately following this introduction.

The correct valuation of such benefits in planning and investment decisions could justify a much greater role for America’s Marine Highway as part of a balanced national transportation system. USDOT, with its responsibility to develop and implement national freight and passenger transportation strategies and target public resources to satisfy public needs across State and other jurisdictional lines, is best positioned to see that this role is realized. The Federal government is also well-situated to coordinate the development of national standards to ensure the compatibility of infrastructure and equipment throughout the Marine Highway system. MARAD is currently working closely with other USDOT modal administrations and the Office of the Secretary of Transportation to develop national transportation strategies that maximize the positive contributions of Marine Highway services.

#### Federal coordination key to national security and economy

Colonel Donald E. Jackson Jr. March 14 2007, Leveraging the Strategic Value of the U.S. Inland Waterway System, USAWC STRATEGY RESEARCH PROJECT, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA469583>)

Conclusion

The inland waterway system of the United States stands as a minimally exploited system that, if optimized, could help eliminate the congestion of overland transport, pollution, and provide a low cost alternative to long haul passages. 78 The USDOT should aggressively promote inland waterways as an effective alternative to overland transportation. U.S. Inland Waterway System stakeholders must embrace emerging technologies that more efficiently manage traffic on inland waterways to mitigate lock-imposed delays. An intra-governmental approach to managing national water resources must be better integrated at the local, state, and federal level, eliminating political impediments to system efficiency. Integrated planning to effectively link the national transportation network with state and local intermodal infrastructure must be encouraged and managed strategically. The federal government must lead efforts to develop adequate funding strategies, seeking public-private collaboration, to maintain the investment streams that support new construction, operations, and maintenance of the inland 16 waterway system, making it a reliable and affordable means of transportation in the future. Inland waterway infrastructure must be prioritized and resources focused on the most value-added gateways supporting objectives of the national freight transportation system. Overall the system should be repaired and modernized and, in certain cases, enlarged to meet the industry standard requirement for locks of 1200 feet. The federal government and the USDOT, using an interagency approach, must continue to develop transportation strategies that encourage the balanced growth of each industry sector, leading leads to more effective integration of inland waterway transportation. The USTRANSCOM deployment and distribution model should be commercially replicated at the national level to highlight alternative freight transportation planning opportunities that leverage the capabilities of each transport mode. The USDOT must provide shippers incentives for increased use of inland waterways, expanding container-onbarge opportunities to alleviate congestion and increase capacity of the freight transportation system at the national level. In order to maintain our competitive edge, we must assure the strategic mobility of our economic and military elements of power. The inland waterway system can provide a key, strategic capability that enables the current and future economic prosperity and national security of the United States. The federal government, however, must efficiently manage, adequately fund, and effectively integrate inland waterways with other modes of transportation at the national level for this to achieve success. Promotion of the inland waterway system, using an interagency and intra-governmental approach, positions this capability to provide the additional capacity necessary to meet current and future freight transportation requirements. Leveraging the strategic value of inland waterways is integral to building an effective and reliable national transportation network for the 21 st Century.

### --- XT: Federal Funding Key

#### This the area of infrastructure is most reliant on federal funding

Cooper, 12 --- Senior Fellow with the Economic Policy Team at the Center for American Progress (February 2012, Donna, “Meeting the Infrastructure Imperative; An Affordable Plan to Put Americans Back to Work Rebuilding Our Nation’s Infrastructure,” <http://www.americanprogress.org/issues/2012/02/pdf/infrastructure.pdf>, JMP)

Inland waterways: $150 million

The Army Corps of Engineers is charged with maintaining our inland waterways and they do so with funds derived from operator fees that are deposited into the Inland Waterways Trust Fund. In FY 2010, $176 million of those funds were allocated for capital improvements. Of all elements of our infrastructure, inland waterways have the greatest reliance on federal general fund revenues to meet operation, maintenance, and capital improvement costs, with 80 percent to 85 percent of all spending on waterways derived from the federal government.89 To cover their share of costs, inland waterway users pay a 20-cent gasoline tax that is deposited into the Inland Waterway Trust Fund.

Although Army Corps data show that traffic on the waterways has remained flat in recent years, the Department of Transportation estimates that cargo traffic on inland waterways is likely to grow by 75 percent in the next 28 years.90 To ensure efficient movement of goods on inland waterways, the Army Corps of Engineers estimate that the aging lock system requires approximately $150 million more a year than is currently being spent.91 We recommend that these funds be made available on an annual basis.

### --- XT: Only USFG is Constitutional

#### Dredging maintenance is a strictly federal authority

Nagle, 3-7-12, Kurt J., President and CEO of the American Association of Port Authorities, “Before The United States House of Representatives Appropriations Committee Energy and Water Development, and Related Agencies Subcommittee,” http://aapa.files.cms-plus.com/PDFs/EWTestimony%20Mar2012%20Final.pdf, KHaze

Developing and maintaining federal navigation channels is the most federal of all the Corps’ missions. Predating the nation itself, the Continental Army was tasked by General Washington to clear waterways for navigation. The mission was memorialized in the Commerce Clause of the Constitution (Section 1, Article 8). Maintaining our federal channels to their authorized and required dimensions is a critical part of maximizing the contributions the Corps and seaports make to our national economy. In addition, this is a critical component of the nation’s economic security and competitiveness in world trade. Currently, only two of the nation’s top seaports are dredged to their authorized dimensions, and those two, Los Angeles, California, and Long Beach, California, are naturally deep ports with relatively low rates of sedimentation. Lack of adequate maintenance dredging is a critically unmet need that affects all four coasts. The problem has become acute on the Great Lakes, and on the East and Gulf Coasts. We have been advised by the Corps that the annual tax collection of about $1.5 billion is sufficient to meet those needs.

#### The federal government has a constitutional responsibility to act

Nagle, 11 --- president and chief executive officer of the American Association of Port Authorities (December 2011, Kurt, Industry Today, “Association: American Association of Port Authorities; Port-Related Infrastructure Investments Can Reap Dividends,” vol. 14, no. 3, <http://www.industrytoday.com/article_view.asp?ArticleID=F370>, JMP)

The federal government has a unique constitutional responsibility to maintain and improve the infrastructure that enables the flow of commerce, and much of that infrastructure in and around seaports has been neglected – and for too long. Federal surface transportation programs have largely ignored freight mobility and the importance of intermodal connectors that provide the link between the federal highway system and intermodal marine terminals that move goods from land to water.

To get our nation’s economy back on track, we must develop a national infrastructure strategy for the future. Washington must finally pass a reauthorized multiyear transportation bill and target federal dollars toward economically strategic freight transportation infrastructure of national and regional significance.

#### Inland waterways can only be developed by the federal government.

Haulk, 98 – Ph.d in Economics, Research Director of the Allegheny Institute for Public Policy and former senior business economist with the Federal Reserve (Jake, “Inland Waterways as Vital National Infrastructure: Refuting "Corporate Welfare" Attacks”, <http://38.106.4.84/docs/haulk--inland_waterways_as_vital_national_infrastructure.pdf>)

This report examines and refutes the claims that the barge transportation companies using the nation’s inland navigation system are recipients of "corporate welfare" and that inland water transportation is the most heavily subsidized transport mode. The latest round of questions concerning inland waterway spending stems from attempts by Congress and the Administration to deal with budget problems and efforts to find expenditure reductions through cuts in so-called corporate welfare. The principal results the study are summarized briefly in the following four key findings:

Key Findings

1. Navigable inland waterways are a truly unique national resource

belonging to the people of the United States. By tradition, law,

and judicial ruling, this resource can only be developed and

controlled by the federal government, ideally to promote the

general welfare of the people. Thus far, the U.S. has done so great success.

2. Attempts to portray government expenditures for construction, operation, and maintenance of the inland waterways as "corporate welfare" for the barge companies are misguided and uninformed. The distinguishing characteristic of corporate welfare is that represents public spending for specific companies or industries and for which the general public receives little or no benefits. In sharp contrast, inland navigation expenditures produce a proven array of transportation and non-transportation benefits including hundreds of thousands of jobs and billions of dollars in economic return, as well as lower pollution risk, enhanced flood protection, extensive water supply programs, water recreation opportunities, and a superior public safety record. In total, the public receives $8 in benefits for every $1 the federal government spends on the waterways programs.

3. Claims that barge companies on the inland waterways are the most heavily subsidized transport mode are simply false. The reality is that barge companies do not receive a subsidy. Every penny of government assistance is earmarked for expenditures navigation infrastructure. Moreover, federal expenditures through the Army Corps of Engineers are spent only improvements.

4. Efforts to increase the charge on barge companies for the waterways are illogical. For example, if recovering outlays is the motivation for the charge, that has been accomplished in the form of $4 billion in revenue Treasury stemming from taxes paid by inland navigation-activities. If the desire is to achieve greater efficiency allocation, it must be recognized that there is no pricing mechanism that will deliver better results than those the current system.

#### **Obama’s executive order puts all US waterways under control of the federal government.**

MyOutdoorBuddy.com, 12 (3/30/2012, “Obama uses executive order to take over waterways” <http://www.myoutdoorbuddy.com/fishing_hunting_water_report.php?water=5138>)

03/30/12 – With a stroke of his pen President Obama has denied Congress' request to allow more comment on the draft National Ocean Policy Implementation Plan, in effect, gagging the public, bypassing the legislative branch of the U.S. Government and giving control over all U.S. Waterways to the federal government.

The Recreational Fishing Alliance told the public today that House Natural Resources Committee Chairman Doc Hastings (R-WA) has received official notice from the Obama Administration denying the Chairman's request for a 90-day extension of the public comment period on the draft of the plan.

RFA called yesterday's announcement by the administration the final act by a President who is clouded by his own agenda.

"This isn't just about our oceans, but everything connected to our nation's waterways will now be under federal control through this executive order," Jim Donofrio, RFA Executive Director, said. "It's a complete takeover of every lake, river and stream that flows into the Pacific, Atlantic and Gulf of Mexico, along with all the lands within."

"President Obama issued an Executive Order imposing a new bureaucracy to zone the oceans that threatens to deter new economic investment, suppress job creation, restrict even recreational fishing, block energy development, and stretch far from the shore to affect farmers and inland communities," Rep. Hastings said in an official release.

"Given the high economic stakes, the vast amounts of new red-tape set to be unrolled, and the fact that some 15 agencies spent over two years devising this scheme, it's unreasonable that the Obama Administration won't allow the American people more than just 75 days to review and comment on it," added Chairman Hastings.

### --- Louisiana Spending DA

#### Louisiana has the most waterways

Waterways Council no date (“Louisiana State Profile,” national public policy organization advocating a modern and wellmaintained national system of ports and inland waterways, <http://www.waterwayscouncil.org/WWSystem/State%20Profiles/Louisiana.pdf>, AMukund)

Louisiana has both shallow draft navigation(inland waterway barge) and deep draft navigation (ocean vessels), with over 366 miles of the Gulf Intracoastal Waterway (GIWW) and borders 428 miles of the Mississippi River. The Port of New Orleans is the point where the GIWW has its major connection with the Mississippi River and the interior or the country. This area is a vital segment of the inland waterway system, providing an economic transportation link from the Upper Midwest to the lower Mississippi Valley and the Gulf of Mexico. The GIWW is maintained at a depth of 12 feet allowing for shallow draft barge traffic. Louisiana is the top state in waterborne transportation. The state contains or borders the lower 507 miles of the Lower Mississippi River. Deep draft navigation is possible for the first 236 miles to the Baton Rouge area. The state also includes over 310 miles of the Gulf Intracoastal Waterway (GIWW) system, with over 270 miles to the west of the New Orleans area and about 40 miles to the east. Louisiana also contains major connecting waterways such as the Port Allen-Morgan City Route and Atchafalaya River which connect the Mississippi River to the GIWW West. Other major waterways are the Mississippi River Gulf Outlet (MRGO), the New Orleans Inner Harbor Navigation Canal (IHNC), portions of the Mermenteau, Calcasieu, Ouachita, Black, West Pearl and Red Rivers, and numerous lakes, bayous, canals and passes (see map). The GIWW is the nation’s third busiest waterway. As seen in Table 1, in 2008, almost 483 million tons of commodities (mostly petroleum products, grain, chemicals and coal) moved to, from, and within Louisiana on the GIWW and Deep Draft Ports via shallow draft barges and deep draft vessels. These commodities had a combined value of almost $153 billion. Petroleum Products comprised 27% of this tonnage, followed by grain at 23%. Total Deep Draft commodities accounted for 52%, with Deep Draft Crude Petroleum and grain, accounting for 81% and 56%, respectively. The majority of the crude petroleum originated from foreign markets, while the majority of the grain was shipped by barge (Table 2), primarily from Illinois, Missouri and Arkansas, down the Mississippi River for export. The remaining commodities total tonnage, were split fairly evenly between Deep and Shallow Draft commodities.

#### They can’t fund that though – lack of revenue – collapses the Louisiana economy

Mathis 6/1 – Louisiana Budget Project (Tim, “Two Reports Show Louisiana has a Revenue Problem, Not a Spending Problem,” <http://www.labudget.org/lbp/2012/06/two-reports-show-louisiana-has-a-revenue-problem-not-a-spending-problem/>, AMukund)

Just as lawmakers begin to wrap up their annual budget debate, two reports – from opposite sides of the ideological spectrum – show that Louisiana’s chronic budget shortfalls are the result of low revenues, not excess spending as some critics like to claim. The first report, from the conservative Tax Foundation, used U.S. Census data to show that Louisiana had the second-lowest growth in tax collections last year. From 2010 to 2011, state revenues grew an anemic 1.2 percent. Only Hawaii, at 0.4 percent, grew at a slower pace. The average growth rate among states was 8.9 percent – more than seven times higher than Louisiana’s. Neighboring states such as Texas (9.6 percent) and other energy-producing states such as Wyoming (14.1 percent) and Alaska (22.4 percent) are seeing revenue growth above the national average. The second study, by the progressive Center on Budget and Policy Priorities, found that Louisiana had the nation’s largest mid-year gap between the cost of basic services such as health care and education, and the money available to pay for them. In fact, Louisiana has suffered two mid-year shortfalls since the current budget was approved last June – a $251 million gap in December, which required a round of cuts to higher education and healthcare; and $220 million that emerged in late April, which legislators hope to patch with money from the state’s Budget Stabilization Fund. Although more than 30 states have raised taxes as part of the way to deal with shortfalls, Louisiana has relied almost exclusively on cuts to critical services as its tax collections have slumped. Nationally, state tax collections have grown 6.5 percent over the past five years. But Louisiana tax collections have dropped by 7.42 percent since 2007, and have fallen by 20 percent over the past three years alone (Figure 1). Although some of Louisiana’s budget problems can be blamed on the boom-and-bust cycle of our post-Katrina economy, other wounds are self-inflicted. Louisiana enacted the largest tax cuts in its history in 2007 and 2008, and followed those up with dozens of smaller tax breaks, exemptions and credits. This has created an ongoing gap between Louisiana’s needs and its resources. Through tax giveaways alone, Louisiana leaves more than $4.8 billion on the table. Giving tax breaks to large, profitable corporations while raising tuition for college students, increasing K-12 class sizes, and firing teachers is no way to create jobs and build future prosperity. The effect of these tax expenditures on Louisiana’s ability to fund higher education was criticized recently by the editor of the Baton Rouge Business Report, who said the long-term effects on the state’s ability to attract high-paying jobs would be devastating. How much longer will it be before many of the companies this state is paying so handsomely to locate here find it’s impossible to hire qualified workers? How much longer will we accept a state that ranks 46th in the nation for education attainment? It’s clear our state leaders have no stomach for restructuring higher education, but do they also have to kill our economic future? At a time where knowledge, research and creativity have never been more economically important, Jindal and the Legislature are systematically destroying the very institutions that give birth to knowledge, research and creativity. We need to invest in good schools, safe roads and bridges, quality health care and other building blocks of a strong economy that works for everyone.

#### Louisiana’s key to the US economy

Louisiana DOA no date (“Economy,” <http://doa.louisiana.gov/about_economy.htm>, AMukund)

Louisiana Economy The main elements of the Louisiana economy are: the production of minerals, particularly oil and natural gas, but also sulphur, lime, salt and lignite; petroleum refining; chemical and petrochemical manufacturing; tourism; forestry; pulp, plywood and papermaking; agriculture and food processing; commercial fishing; shipping and international trade; shipbuilding, and general manufacturing. Oil And Natural Gas And Minerals Production Louisiana contains just under 10 percent of all known U.S. oil reserves and is the country's third largest producer of petroleum. Its reserves of natural gas are even larger and it produces just over one-quarter of all U.S. supplies. Louisiana also has immense quantities of salt contained in huge underground formations, some of which are a mile across and up to 50,000 feet deep and produce almost 100 percent pure rock salt. The first sulphur mined in America came from Louisiana and the state is still a principal producer of the mineral. Petroleum Refining Louisiana petroleum refineries produce enough gasoline annually (15 billion gallons) to fill up 800 million automobile gas tanks, making the state the third leading refiner. The state's 16 refineries include one of the four largest in the Western Hemisphere and among the companies with Louisiana production facilities are Exxon, Shell, Citgo. Mobil, Marathon, Conoco, BP and STAR. In addition to producing gasoline, Louisiana refineries also produce jet fuels, lubricants and some 600 other petroleum products. Chemicals And Petrochemicals Louisiana ranks second in the nation in the primary production of petrochemicals. More than 100 major chemical plants are located in the state producing a variety of "building block" chemicals, fertilizers and plastics, plus the feedstocks for a wide array of other products. Synthetic rubber was first developed and produced commercially in Louisiana as were a number of other petroleum-related products. Tourism Tourism is a major Louisiana industry employing over 87,000 workers. Travelers spend an estimated $5.2 billion in the state each year. Major tourist attractions include the New Orleans French Quarter, the Cajun Country, antebellum plantation homes, Jazz, distinctive food, deep sea and freshwater fishing, hunting, the Mardi Gras and more than 100 other festivals, swampland tours, hiking and camping, canoeing and Mississippi River boat rides. Shipbuilding Louisiana shipyards build every kind of seagoing vessel from giant cryogenic ships used to transport liquified natural gas to some of the largest offshore oil and gas exploration rigs in the world. They also build merchant vessels, Coast Guard cutters, barges, tugs, supply boats, fishing vessels, pleasure craft and river patrol boats. The largest industrial employer in the state is Avondale Shipyards on the Mississippi River near New Orleans where vessels are sometimes built upside down and ships are launched sideways into the river rather than stern first as is the custom elsewhere. Forestry and Forest Products Louisiana has more than 13.9 million acres of forests, including pine, oak, gum and cypress. Approximately one billion board feet of timber and 3.6 million cords of pulpwood are cut annually to support a variety of forest-related industries including Kraft paper and fine-paper mills, plywood and particle board plants, furniture and flooring manufacturers, pulp mills, liner board and container board factories and paper bag plants. Agriculture and Food Processing Louisiana is among the top 10 states in the production of sugar cane (2nd), sweet potatoes (2nd), rice (3rd) and cotton (5th). It is also a major producer of beef cattle. Louisiana is the sole source of the Tabasco pepper prized as a condiment around the world and is also the sole source of perique tobacco which is widely used as flavoring with other tobaccos. The state's huge agricultural production supports more than a dozen rice mills, seven sugar refineries plus nearly two dozen other sugar-related facilities, and a number of canning plants, cotton gins and meat packaging plants. Commercial Fishing Louisiana's commercial fishing industry catches about 25 percent of all the seafood landed in America and holds the record for the largest catch ever landed in a single year, 1.9 billion pounds. The state is the largest producer of shrimp and oysters in the U.S. Louisiana waters also yield menhaden, crab, butterfish, drum, red snapper, tuna and tile fish as well as a variety of game fish, including tarpon. The state's freshwater fishery is considered the most diversified in the U.S., and, in addition to fish, its commercial ponds and the Atchafalaya River Basin swamp produce millions of pounds of crawfish annually. Shipping and International Commerce Louisiana was originally purchased from France in order to secure the Mississippi River and the port of New Orleans for the safe movement of the goods and produce of the fledgling United States. Today, it remains a major avenue for the import and export of goods. The state's five major ports handle roughly 400 million short tons of cargo a year, including more than 40 percent of all the grain exported from the U.S. More than 25 percent of the nation's waterborne exports pass through Louisiana, and its Superport is the only facility in the U.S. capable of handling ultra deep draft vessels drawing 100 feet of water. More than 5,000 ocean-going ships call at Louisiana ports each year along with a seemingly endless stream of barge tows, some of which carry more than 40,000 tons of cargo, more than many seagoing ships. And more than 185 years after its purchase from Napoleon, Louisiana remains a center for foreign investment with some 200 foreign companies having almost $16 billion invested in the state, the largest amount of foreign investment in any southeastern state and ninth largest among all states. General Manufacturing In addition to its resource-based industries, Louisiana also has a diverse general manufacturing base. Louisiana produces business telephone systems, assembles light trucks, manufactures electrical equipment, manufactures pharmaceuticals, glass products and automobile batteries, as well as specialized vehicles for traveling over marshes, maritime ranging equipment to let boats know where they are at sea, makes playground equipment, mobile homes, yachts, clothing and weapons, plus several hundred other products. Aerospace/Aviation While Martin Marietta employs more than 2500 workers in New Orleans to construct the external fuel tanks for NASA's space shuttle program, it is not Louisiana's only link to the nation's space program. NASA also operates an aerospace computer services center in Slidell. The state also has an emerging aviation services sector. The Boeing Corporation operates a major, aviation maintenance facility in Lake Charles which employs some 2,000 workers to repair and refit jet aircraft, while Collins Defense Communications, a division of Rockwell International, operates an aircraft modification center in Shreveport. Biotechnology Louisiana excels in the three most promising areas of biotechnological research and development - bioprocess, recombinant DNA and monoclonal antibody technology. Scientists at Louisiana State University were the first in the world to bring about the successful birth of a calf from one quarter of a transplanted embryo. Louisiana's growing role in the world of biotechnological research is augmented by the Pennington Biomedical Research Center, a world-class facility in Baton Rouge which specializes in the study of the role of nutrition in health. Film Industry Louisiana's film history dates back to a 1908 production on "Faust." Last year (1994), production revenues from feature films, television, commercials and music videos produced in the state totaled more than $37 million. Recent feature films shot here include Interview with the Vampire, The Pelican Brief, and Heaven's Prisoners. The Louisiana Film Commission offers a variety of services to both in-state and out-of-state production companies.

### --- Alabama Spending DA

#### Alabama would have to spend disproportionately – large number of inland waterways

Army Corps of Engineers 2009 (“Alabama’s Inland Waterways,” 15 Oct 2009, <http://www.sam.usace.army.mil/pd/apw/Presentations/Break%20Out%20Session%202/Salon%20D/Alabama's%20Inland%20Waterways%202%20(Jerry%20Sailors).pdf>, AMukund)

• 1400 miles of navigable waterways – second most in US • Integral part of nation's transportation system • Links to major river ports in 21 states serving the Upper Mississippi, Ohio, Missouri, Tennessee River Valley, and Great Lakes • Access to major Gulf ports and river systems via the Intracoastal Waterway • 15 federal projects with an annual O&M budget of $140 million • Multiple benefits to the State and region

#### That destroys an already strained budget

Hollis 6/18 – Huntsville Times (Mike, “EDITORIAL: Patching up the state budget, one more time,” <http://blog.al.com/times-views/2012/06/editorial_a_lesson_from_missis.html>, AMukund)

Alabama politicians for years have told voters the state doesn't need to raise taxes because it has plenty of money if they could just keep the bureaucrats from wasting it. Never mind that governors and lawmakers have never figured out how to stop that. Instead, they always seem to be desperately casting about for ways to come up with enough money for the General Fund. That's the budget that pays for state troopers, Medicaid, mental health, the courts, human resources and other agencies. Sometimes the state has raided its share of national lawsuit settlements in the tobacco and drug-pricing cases to provide tens of millions of dollars for General Fund agencies. And that's happening again, although perhaps to a lesser extent than in years past. Alabama is receiving more than $106 million in the national mortgage settlement, and about $80 million of that will help homeowners victimized in alleged foreclosure wrongdoing by five of the nation's largest mortgage lenders. Of the estimated $25.3 million remaining, the state Attorney General's Office intends to keep $19.3 million to help pay for its law enforcement operations and those of district attorneys from now through fiscal 2015, according to a report by The Times' Montgomery bureau. Using the money that way appears to be within the terms of the settlement. In return, the attorney general's office will give up that much money from the General Fund, freeing it for other purposes. Attorney General Luther Strange hasn't said yet what he plans to do with the rest of the money, nearly $6 million. "My plan is to work with the Legislature," Strange told reporter George Altman. But all $25.3 million could be used to help people with housing problems in Alabama. "This is yet another example of the impossible bind that our leaders have left us in, in refusing to seek new revenue for the General Fund," said Jim Carnes, spokesman for Alabama Arise, a nonprofit group that lobbies for the poor. It is worth noting, however, that the settlement will bring substantial help to many Alabamians. Borrowers will receive an estimated $29.9 million in benefits from loan term changes and other relief. Further, borrowers who lost their homes to foreclosure from Jan. 1, 2008, through Dec. 31, 2011, and encountered servicing abuse would qualify for about $20.6 million in payments to borrowers. Also, the value of refinanced loans to underwater borrowers would be about $29.7 million. Make no mistake, Alabama's General Fund desperately needs more money. That's why Gov. Robert Bentley wants voters to approve a plan to use oil and natural gas royalties to prevent the collapse of the Medicaid program and the mass release of inmates from Alabama prisons, among other things. If voters go along with him, that would save Bentley either the embarrassment of breaking his promise not to raise taxes or being branded as the governor who presided over a debacle. Strange's plan will provide about $5 million a year over four years for the General Fund, barely a pittance compared to its $1.67 billion in tax revenues this fiscal year. And eking out money this way year after year while failing to provide enough money to fund state agencies adequately is not good government.

#### That devastates the national economy – Alabama’s economy is key to national consumption and exports

EconomyWatch 2010 (“Alabama State Economy,” 6/30/2010, <http://www.economywatch.com/world_economy/usa/states/alabama-economy.html>, AMukund)

Demography And Social Indicators Alabama is considered as a business hub not only in the United States but also over the globe by attracting the world-class companies to locate in the heartland of the South. It is the center of attraction for the new and expanding businesses. Demography And Social Indicators According to the U.S. Department of Agriculture, Center for Business and Economic Research, the country constitutes an area of 51,718 square miles (133,950 km2), including 968 sq. mile (2,507 km2) of inland water but excluding 519 sq. mi. (1,343 km2) of coastal water. The total population of the state according to the 2003 estimated data was calculated at 4,500,752 with a rank of 23. The rate of change in the population in 2002-03 was 0.5%. The density of population in the state was 88.7 per square miter. The unemployment rate of the state was 5.8 % in the year 2003. Business and Economy of Alabama The Gross state product of the economy was was $121.5 Billions in the year 2001. The per capita personal income of the state in the year 2004 was $27,795. Among the various sectors of the economy, the major industries include Pulp and paper, Chemicals, electronics, apparel, textiles, primary metals, lumber and wood products, food processing, fabricated metals, automotive tyres, oil and gas exploration. The chief manufacturing products of the state are electronics, cast iron and plastic pipe, fabricated steel products, ships, paper products, chemicals, steel, mobile homes, fabrics, poultry processing, soft drinks, furniture and tyres. The chief crops of the state are cotton, green house and nursery, peanuts, sweet potatoes, potatoes and other vegetables. The major livestocks of the state in the Jan.2004 were 1.36 mil. Cattle/calves, Jan 2003 were 165,000 hogs/pigs, Dec 2003 were 14.4 mil. Chickens (Excluding broilers). Natural Resources In Alabama The state possesses a huge reserve of coal, lignite, limestone, marble, sand, gravel and clay resources. Apart from them the state’s soils support a diverse and global agri-business industry, with top national rankings in such commodities as catfish, broilers, peanuts, sweet potatoes, and Irish spring potatoes. From an approximation it is found that ten percent of the nation's surface water resources pass through Alabama. Exports of The State The major exports of the state include automotive; forest products; industrial machinery including computers; organic chemicals; plastics and plastic articles; oil seeds, miscellaneous grain, seed, fruit, plants; aircraft, spacecraft, and parts; apparel articles and accessories (except knit) etc.; and miscellaneous chemical products. Conclusion However the state is situated in the center of the fastest-growing region in the country, the Southeast United States. Being located on the Gulf of Mexico it is really a gateway to the rapidly growing markets in Mexico, Central America and South America. The state is capitalizing on NAFTA through participation in such agreements as the States of the Gulf of Mexico Initiative, a regional effort designed to promote economic, educational and cultural exchanges between Mexican and U.S. states.

### --- Pennsylvania Spending DA

#### Pennsylvania would have to spend huge amounts of money due to the counterplan – large numbers of locks and dams

US Army Corps of Engineers 2011 (“Pennsylvania,” 6 July 2011, <http://outreach.lrh.usace.army.mil/States/PA/Default.htm>, AMukund)

The State of Pennsylvania contains portions of three historically important, navigable inland waterways. Pennsylvania encompasses the entire 272 navigable miles of the Allegheny River, the lower 91 miles of the Monongahela River and the first 40 miles of the Ohio River. These waterways have been vital to moving raw materials such as coal and aggregates and finished steel products to and from Pennsylvania. In 2008, almost 42 million tons of commodities (primarily coal, iron/steel and aggregates) moved to, from, and within Pennsylvania. These commodities had a combined value of $3.8 billion. Coal made up approximately 75% of this tonnage. Aggregates and iron/steel comprised 9.5 and 3.8% of the tonnage, respectively. An analysis of the waterborne commerce data for the State of Pennsylvania shows that 11.8 million tons of commodities were shipped on the river system out of the state. Most of this tonnage (approximately 10.4 million tons) consisted of coal. Docks in the state received 18.5 million tons, with coal again being the largest commodity. More than 11.5 million tons moved within the state. In 2008, the 41.8 million tons shipped to, from and within Pennsylvania were worth $3.8 billion. Pennsylvania docks shipped commodities by barge to 15 states, and received commodities from 13 states (see map). The leading state shipped to was West Virginia, with 4.4 million tons worth $217 million. The leading state shipping by barge to Pennsylvania was also West Virginia, which shipped 11.7 million tons of goods. Louisiana shipments to Pennsylvania of high-value commodities were worth over $951 million. There were 103 manufacturing facilities, terminals, and docks in western Pennsylvania that shipped and received tonnage in 2008 (see map). The Port of Pittsburgh was the second largest inland port in the country. The port shipped and received 41.8 million tons of commodities in 2008. The port definition includes all of the navigable Ohio River Basin waterways in Pennsylvania. There are five power plants along Pennsylvania’s inland waterways that receive coal by barge. In 2008, these plants received a combined 11.8 million tons of coal. Barges moved 15.5 million tons of Pennsylvania coal to 21 power plants in the Ohio River Basin. There are 17 navigation locks and dams in Pennsylvania (see map). There are three projects on the Ohio River: Emsworth, Dashields and Montgomery. The Allegheny River has eight locks and dams, which are numbered 2 through 9. On the Monongahela River, Pennsylvania’s waters include Locks and Dams 2, 3 and 4 along with Maxwell, Grays Landing and Point Marion Locks and Dams.

#### That devastates the Pennsylvania economy – they won’t increase taxes and would just cut critical programs instead

Luhby 2011 (Tami, “Pennsylvania budget calls for deep spending cuts,” 3/8/2011, CNNMoney, <http://money.cnn.com/2011/03/08/news/economy/Pennsylvania_Corbett_budget/index.htm>, AMukund)

NEW YORK (CNNMoney) -- Calling the state's fiscal problems unprecedented, Pennsylvania Gov. Tom Corbett unveiled Tuesday a budget that asks state employees to forgo pay increases and pay more for their health care. The state is facing a budget gap of more than $4 billion, and its new governor is keeping his promise not to raise taxes to close it. Instead, he is looking for concessions from public employees and for cuts from a wide array of agencies. Also, some 1,500 positions would disappear in the budget that cuts overall spending by 3%. "We have to spend less because we have less to spend," Corbett said. "We must tax no more because people have no more to give." Corbett, a Republican, is tackling his budget problems in much the same way as other governors around the nation. Many are taking an ax to employee compensation, education and social services. But unlike state leaders in places such as Wisconsin and Ohio, Corbett is not looking to reduce public worker unions' collective bargaining rights. Hits to state workers The governor is leaning hard on education -- both K-12 and college level. Together, these suck up 38% of the state budget. "Education cannot be the only industry exempt from recession," Corbett said. "We need to change the whole system. We need a new set of priorities: child, parent and teacher -- and in that order." Corbett is asking teachers to freeze their salaries for a year, saying it would save $400 million, and he wants school districts to be allowed to furlough employees during tough budget times. But he still plans to cut $550 million from basic education funding. He is also looking to reduce state mandates and promote school choice. And he wants to allow voters to rule on property tax hikes school districts may propose to make up for state funding cuts. The state university system would see its state funding slashed $271 million, while Penn State, University of Pittsburgh, Temple and Lincoln universities would lose half their funding. The governor also said he will be looking for salary roll-backs and freezes from the state's 62,000 employees, as well as having them pay more for health care. And he wants to start discussions on fixing the pension system, which could mean higher contributions or less generous benefits.

#### Pennsylvania’s economy is important to the nation’s economy – state collapse jeopardizes the U.S. economy

EconomyWatch 2010 (“Economy of Pennsylvania State,” 6/30/2010, <http://www.economywatch.com/world_economy/usa/states/pennsylvania-economy.html>, AMukund)

Demography And Social Indicators Pennsylvania is middle Atlantic state of the United States. The state is bordered by New Jersey, West Virginia, Ohio, and Lake Erie and New York. The state has a total geographical area of 46,055 sq mi; with a land area of 44,817 sq mi; and total acres forested 16.9 mil. Pennsylvania is one of the leading steel producers in the United States. The state's economy gets more revenues from the steel industries. Demography And Social Indicators According to the US Census Bureau, the total estimated population of the state in 2005 is 12,429,616 in comparison to 12,406,292 in July 2004. The net change in the population of the state as of 2002-03 was 0.3%. The US Census 2000, has calculated the population of the state at 12,281,054. The populatio density of the state is calculated at 275.9 per sq mi. With regards to the Racial Distribution 2000, White 85.4%; Black 10.0%; Asian 1.8%; Native American 0.1%. Business and Economy of Pennsylvania The Gross State Product of Pennsylvania in 2001 was $408.4 billion. The per capita personal income of the state in 2003 was $31,998. Among the various sectors of the economy the Chief Industries include agribusiness, advanced manufacturing, health care, travel and tourism, depository institutions, bio technology, printing and publishing, research and consulting, trucking and ware housing, transportation by air, engineering and management and legal services. Important Manufacturing goods of the state are fabricated metal products, industrial machinery and equipment, transportation equipment, chemicals and pharmaceuticals, lumber and wood products, stone, clay and glass products. Major crops are corn, hay, mushrooms, apples, potatoes, winter wheat, oats, vegetables, tobacco, grapes and peaches. Livestock (Jan 2004): 1.64 million Cattle/calves; 85,000 sheep/lambs; (Jan 2003): 1.1 million hogs/pigs; (Dec 2003): 29.4 mil chickens. Energy Production In Pennsylvania Electricity Production (est. 2003, kwh by source): Coal 15.9 bil; Petroleum 35 mil; Hydro electric 1.3 bil; Nuclear 12.6 bil.

#### More evidence – it’s key on a national level

CityData 2010 (“Pennsylvania – Economy,” <http://www.city-data.com/states/Pennsylvania-Economy.html>, AMukund)

Dominated by coal and steel, Pennsylvania is an important contributor to the national economy, but its role diminished considerably during the 20th century. The state reached the height of its economic development by 1920, when its western oil wells and coal fields made it the nation's leading energy producer. By that time, however, Pennsylvania's oil production was already on the decline, and demand for coal had slackened. No longer did the state dominate US steel production: Pennsylvania produced 60% of the US total in 1900, but only 30% in 1940 and 24% in 1960. Philadelphia, a diversified manufacturing center, began to lose many of its textile and apparel factories. The Depression hastened the decline. Industrial production in 1932 was less than half the 1929 level, and mineral production, already in a slump throughout the 1920, dropped more than 50% in value between 1929 and 1933. By 1933, 37% of the workforce was unemployed. Massive federal aid programs and the production of munitions stimulated employment during the 1940s, but some sections of the state have never fully recovered from the damage of the Depression years. Declines in coal and steel production and the loss of other industries to the Sunbelt have not yet been entirely counterbalanced by gains in other sectors, despite a steady expansion of machinery production, increased tourism, and the growth of service-related industries and trade. Manufacturing, the 2nd-largest employer in Pennsylvania—providing one million jobs in the 1990s—lost about 350,000 jobs during the 1980s. The outlook for the steel industry remained uncertain in the 1990s, as Pennsylvania's aging factories faced severe competition from foreign producers. Services, in contrast, recorded about as much growth as manufacturing lost. The fastest growing service industries were concentrated in the medical and health fields. Coming into the 21st century, the annual growth rate for Pennsylvania's economy averaged 4.75% (1998 to 2000), which was then more than halved to 2.2% in the national recession of 2001. Manufacturing output, which grew 5.2% from 1997 to 2000 (although decreasing as a share of total output from 20.1% to 18.4%), fell -7.2% in 2001 (decreasing its share to 16.7%). The strongest growth in output was in various service sectors, with output from general services up 28% from 1997 to 2001; from financial services, up 22.1%, and from trade, up 19.5%. In 2001, Pennsylvania's gross state product gross state product was $408.4 billion, the 6th largest among the states, to which general services contributed $98.6 billion; financial services, $79.3 billion; manufacturing, $68.3 billion; trade, $62.3 billion; government, $41.4 billion; transportation and public utilities, $35 billion, and construction, $18.5 billion. The public sector in 2001 constituted 10% of gross state product, below the 12% average for the states.

### --- Interstate Compact Ans

Bureaucratic problems prevent ISC function – guarantees project failure

Bielecki 2007 – Buffalo Environmental Law Journal (Jessica A., B.S. 2004, University of Mary Washington, J.D. 2007, The University at Buffalo School of Law, “Managing Resources With Interstate Compacts: A Perspective From The Great Lakes,” 14 Buff. Envt'l. L.J. 173, Lexis/Nexis, AMukund)

Despite the benefits an interstate compact has to offer, there are weaknesses that must be identified. The first is the time it takes to negotiate, draft and then finally ratify a compact between multiple jurisdictions. n140 This time criticism is not, however, unique to interstate compacts. As discussed below, time is also a limiting factor with other management approaches including court determinations. n141 A second criticism is that interstate compacts can be limited in scope because only signatory states are parties to the agreement. In the context of the Great Lakes, this means that any jurisdiction outside the basin will not have the power to vote in Compact affairs. At first glance, this appears problematic for the Basin because Canada cannot be a party to the interstate compact due to constitutional restrictions. n142 But, in an effort to establish a balanced management system, two agreements have been created: the Interstate Compact and the Sustainable Water Resources Agreement. n143 These agreements mimic one another in goals, objectives and requirements. n144 Canada's membership in the Compact's parallel agreement will help ensure withdrawal management efforts are consistent throughout the Basin. n145 [\*200] A final criticism is that interstate compacts are inflexible, n146 and if poorly drafted, may not be able to adapt to changing conditions in environmental regulations, ecological changes, or population growth. n147 A common example of unyielding permanency is in the Rio Grande and Pecos River Compact, where new mandates under the Endangered Species Act have caused extreme difficulties for the participating states to allocate water in compliance with the compact's terms. n148

#### Interstate compacts damage democracy – prefer our evidence – their authors are ideologues who ignore the negative effects of compacts

Hasday 1997 – Florida Law Review (Jill Elaine, “Interstate Compacts In A Democratic Society: The Problem Of Permanency,” Law Clerk to Judge Patricia M. Wald, United States Court of Appeals for the D.C. Circuit. B.A. 1994, J.D. 1997, Yale University, 49 Fla. L. Rev. 1, Lexis/Nexis, AMukund)

Yet while the benefits of compacting for devolutionists are clear, the compacting form raises serious democratic concerns. Perhaps the core meaning of democracy is that it allows the majority in a polity to largely determine the shape of their government and the course of its pursuits. No matter the benefits of permanency, there is still a tension between this principle and long-term contracts by governments. Even if compacts are the product of deliberative, collective self-determination, [\*8] which often is doubtful, they severely hamper the people's ability to continue to guide their own fate by strictly limiting a party state's power to respond to changing preferences and circumstances. At the heart of the meaning of compacts, this tension has gone essentially unexplored by compact writers, who instead expound on the advantages of finality and hail compacts as augmenting the voice of the citizenry as they empower the states. n34 The democratic tension this disability creates varies depending on the subject matter of the compact, becoming more compelling the more decisionmaking power the compact wields and the less integral permanency is to the agreement's purpose. Functional democracy frequently requires some measure of finality (and protection for minority rights). n35 Indeed, the United States Constitution itself ties the nation to a historical agreement barring super-majority consensus for change. n36 But the Constitution binds out of the conviction that certain established institutions are necessary to make self-government possible, and it leaves current legislators with substantial control. Permanency becomes much more problematic for democracy when, as with agency compacts, it insulates decisionmaking from popular control and prevents democratically-elected decisionmakers from responding to change. Furthermore, the convention debates make clear that the Founders carefully considered both policy and forum in drafting the Constitution. n37 In contrast, every interstate agreement that potentially infringes upon federal power must assume the compact form. n38 Even if compacting states recognize the advantages of permanency-and they often do not-their lack of [\*9] institutional options certainly limits the extent of their affirmative choice to be bound. Boundary compacts, which will not concern us beyond this section, are perhaps the least problematic in democratic terms. While they commit future state legislators to obeying a dictate of their predecessors, this commitment is as narrow in content and muted in imposition on the future as possible. Boundary compacts decide one, particular dispute forever and do no more; they establish no operating or decisionmaking mechanisms. They locate citizens' votes, but do not override them on any substantive issue. Moreover, the benefits of permanency are obvious for compacts that establish state boundaries: A settled boundary, no matter how historically inaccurate, is more useful than any other kind. n39 Other one-shot compact projects are somewhat more troublesome. Although these compacts create no decisionmaking authority, the case for permanency in matters like water allocation is at least somewhat cloudy. State development often depends on a guaranteed water supply. But whereas any fixed boundary is more valuable than an uncertain one, popular evaluation of the content of water allocation decisions, which may change over time, seems at least as important as the fact that the matter has been resolved. At the other end of the spectrum are compacts that establish administrative agencies with jurisdiction over important aspects of economic or social life, n40 which have become increasingly common since New York and New Jersey compacted to establish a Port Authority in 1921. n41 By necessity, these ongoing enterprises, the focus of this Article, must constantly make choices that the compacting state governments did not anticipate at the time of enactment. Even if agency compacts rigorously attempt to facilitate public openness and state oversight, which (as we will see) they generally do not, n42 the important, democratic check of a realistic possibility of amendment or termination would still be missing. The more decisionmaking authority the agency has, the more potentially dangerous the diminished ability of states to govern the agencies they have created. In addition, the case for permanency is significantly less compelling here than in the boundary context. To be sure, the permanency of agency compacts may facilitate [\*10] long-term planning, property acquisition, and bond financing. n43 Similarly, the finality-and enforceability-of agency compacts might also seem particularly appealing to states hoping to avoid a "race to the bottom," in which interstate cooperation would improve the situation of each state only if no state reneges. As we will see, however, permanency's contribution to the efficacy of agency compacts is often uncertain or unnecessary. n44 More to the point, by far the most legitimate reason to create an agency compact is to satisfy citizen needs or preferences and to further the public interest. Whereas simply resolving a troublesome issue is predominant in boundary matters and important with other one-time projects, the purpose of agency compacts does not suggest that maximizing the effectiveness of current policies, to the extent that finality does that, should take precedence over responding to subsequent changes in the democratic consensus. Furthermore, the evidence indicates that states create agency compacts without much of a theory about when such a recourse to permanency is appropriate. n45 The democratic tension within compacts is also much more pronounced from the perspective of citizens than state governments, which suggests that it may be yet harder to surmount. From the states' point of view, federal preemption binds them essentially as much as compacts do. In either case, change will be impossible (preemption) or very difficult/impossible (compact) unless a state can convince the federal government to change its policy by either altering its program or overriding the compact agreement (a prospect discussed more fully below). n46 Although the problem of permanence is much more stark for the states when federal preemption is not likely, threatened federal [\*11] action spurs most compacts. n47 From the people's perspective, however, federal preemption-whatever its other problems-means that the responsible institution of democratic government is free to change its policies as its judgment dictates and to use the threat of change as a means of control. In contrast, compacts seriously disable the democratic institutions most likely to be concerned- the states-from significantly altering their plans or wielding that threat.

### --- State Spending DA

#### State budgets are collapsing – recovery is slow

McNichol et al 5/24 – Center on Budget and Policy Priorities (\*Elizabeth, Senior Fellow specializing in state fiscal issues including the economy’s impact on state budgets and long-term structural reform of state budget and tax systems. AND \*\*Phil Oliff, Policy Analyst with the State Fiscal Project AND \*\*\*Nicholas Johnson, Vice President for State Fiscal Policy at the Center on Budget and Policy Priorities, “States Continue to Feel Recession’s Impact,” <http://www.cbpp.org/cms/index.cfm?fa=view&id=711>, AMukund)

The additional cuts mean that state budgets are poised to continue to be a drag on the national economy, threatening hundreds of thousands of private- and public-sector jobs, reducing the job creation that otherwise would be expected to occur. Potential strategies for lessening the impact of deep spending cuts include more use of state reserve funds in states that have reserves, more revenue through tax-law changes, and a greater role for the federal government. Our survey of state fiscal conditions shows that: States continue to face a major fiscal challenge. Thirty states have projected (and in many cases have already closed) budget gaps totaling $54 billion for fiscal year 2013. (See Figure 1.) These shortfalls are all the more daunting because states' options for addressing them are fewer and more difficult than in recent years. Temporary aid to states enacted in early 2009 as part of the federal Recovery Act was enormously helpful in allowing states to avert some of the most harmful potential budget cuts in the 2009, 2010 and 2011 fiscal years. But the federal government allowed that aid to largely expire at the end of fiscal year 2011, leading to some of the deepest cuts to state services since the start of the recession. Far from providing additional assistance to states, the federal government is now moving ahead with spending cuts that will very likely make states' fiscal situation even worse.

#### Increased state spending would jeopardize the economy

McNichol et al 5/24 – Center on Budget and Policy Priorities (\*Elizabeth, Senior Fellow specializing in state fiscal issues including the economy’s impact on state budgets and long-term structural reform of state budget and tax systems. AND \*\*Phil Oliff, Policy Analyst with the State Fiscal Project AND \*\*\*Nicholas Johnson, Vice President for State Fiscal Policy at the Center on Budget and Policy Priorities, “States Continue to Feel Recession’s Impact,” <http://www.cbpp.org/cms/index.cfm?fa=view&id=711>, AMukund)

In states facing budget gaps, the consequences are severe in many cases — for residents as well as the economy. To date, budget difficulties have led at least 46 states to reduce services for their residents, including some of their most vulnerable families and individuals.[4] More than 30 states have raised taxes to at least some degree, in some cases quite significantly. If revenues remain depressed, as is expected in many states, additional spending and service cuts are likely. Indeed, a number of states have already made substantial cuts to balance their budgets for fiscal year 2013. Budget cuts often are more severe later in a state fiscal crisis, after largely depleted reserves are no longer an option for closing deficits.[5] Spending cuts are problematic during an economic downturn because they reduce overall demand and can make the downturn deeper. When states cut spending, they lay off employees, cancel contracts with vendors, eliminate or lower payments to businesses and nonprofit organizations that provide direct services, and cut benefit payments to individuals. In all of these circumstances, the companies and organizations that would have received government payments have less money to spend on salaries and supplies, and individuals who would have received salaries or benefits have less money for consumption. This directly removes demand from the economy. Tax increases also remove demand from the economy by reducing the amount of money people have to spend. However, to the extent these increases are on upper-income residents, that effect is minimized. This is because these residents tend to save a larger share of their income, and thus much of the money generated by a tax increase on upper income residents comes from savings and so does not diminish economic activity. At the state level, a balanced approach to closing deficits — raising taxes along with enacting budget cuts — is needed to close state budget gaps in order to maintain important services while minimizing harmful effects on the economy. Ultimately, the actions needed to address state budget shortfalls place a considerable number of jobs at risk. The roughly $54 billion shortfall that states are facing for fiscal year 2013 equals about 0.35 percent of GDP. Assuming that economic activity declines by one dollar for every dollar that states cut spending or raise taxes, and based on a rule of thumb that a one percentage point loss of GDP costs the economy 1 million jobs, the state shortfalls projected to date could prevent the creation of 350,000 public- and private-sector jobs next year.

### 2ac Free Market CP / Coercion

#### This is a justifiable government intervention

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

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

#### Inland Waterway privatization will destroy efficiency and trigger massive opposition

TRB, 01 (2001, Transportation Research Board, “Inland Navigation System Planning: The Upper Mississippi River-Illinois Waterway” <http://www.nap.edu/openbook.php?record_id=10072&page=15>)

The Public Interest in the Upper Mississippi River

Investment in and management of an inland waterway is affected by the fact that almost all investment in navigation enhancement and river-training facilities is public and almost all use of the waterway is private. No federal agency would want to assume direct control over the multiple uses of inland waterways. Privatizing these facilities and services is an even less attractive option. A company that controlled commercial navigation would find itself making decisions that affected not only navigation, but also municipal water supply, recreation, irrigation, flood damage reduction, and environmental quality. Privatization would not work well unless the controlling firms faced the proper incentives regarding each possible use of the waterway. There are also disagreements over the goals to be achieved in managing a waterway; a proposal to turn over waterway operation and maintenance to a private firm would be met with intense opposition from almost all constituents. Thus, tensions of public ownership and private use are inherent in U.S. inland waterway systems.

Under present management practices, shippers and towboat operators are mainly motivated to consider their own costs while neglecting the government's costs. For example, a current controversy is whether "industry self-help" should be used to reduce congestion by speeding the locking process. Industry self-help imposes costs on towboat operators, but costs the government nothing. In contrast, extending locks shifts the costs of reducing congestion from towboat operators to the government (a portion of the project costs are paid by the fuel tax that goes into the Inland Waterways Trust Fund 1 ).

The federal government, through the Corps, is responsible both for investing in navigable waterways and for managing their operations and for minimizing or mitigating environmental side effects. The implicit goal of inland waterway management has been to provide low cost freight transportation to all users. This goal has been manifested as providing equal access to all on a “first-come, first-served” basis, and expanding the system when congestion becomes a problem. Shippers have been reluctant to seek innovative, nonstructural ways to reduce congestion; reductions in congestion would reduce river traffic (at least at peak times), thereby reducing the benefits of lock extensions. Unfortunately, the “first-come, first-served” rule is an inefficient way to manage river traffic, as it results in higher systems costs (costs to all shippers) than if there were a system explicitly designed to reduce congestion. Better management of waterway traffic should result in improved service and lower total shipping costs—with benefits to most waterway shippers. In particular, farmers would benefit from lower shipping costs.

Large amounts of waterway traffic, and the hydrodynamic changes caused by the series of navigation pools, have effects on aquatic habitat and species. The many federal, state, and local environmental conservation laws, such as the Clean Water Act and the Endangered Species Act, reflect public concern for protecting the river and its ecosystems. In addition, environmental protection provides tangible benefits from tourism, recreation, and the production of food and fiber. Estimates of the annual revenue generated by tourism and recreation in the Upper Mississippi range from $1.2 billion (Carlson et al., 1995) to $6.6 billion (cited in UMRCC, 2000). The vast river–floodplain ecosystem of the Upper Mississippi River basin also provides a range of ecosystem services, including drinking water, food (fishes and waterfowl), groundwater recharge, purification of polluted waters, and flood retention. The Upper Mississippi River ecosystem is a storehouse of biodiversity, which produces social benefits today (e.g., food and fiber), and may produce additional benefits in the future (e.g., medicines).

On the other hand, intensive use of the waterway has negative effects on river ecology and, in turn, on these various social values and goods. The construction and subsequent operation of the dams and navigation pools on the UMR–IWW has also resulted in a range of environmental effects. Given these external costs, the multiple uses of a river and waterway system must be considered explicitly when deciding how much traffic should be permitted on the waterway and whether locks should be extended in order to accommodate more traffic. The public interest would be best served by river traffic management practices that are environmentally sustainable; that is, strategies that promote both a better flow of river traffic and the maintenance of ecosystem habitat and processes.

The Corps has viewed its responsibility as providing adequate capacity to serve all waterway users; for example, deciding on the proper investments and determining the best time to make those investments. These decisions are guided by federal laws and congressional guidance (a fuller discussion of which is provided in Chapter 3 ). The Corps has given little or no attention to allocating the waterway among all those who wish to use the locks when there is congestion.

The best solution to the problem of waterway congestion would be to simultaneously optimize access to the locks and to determine when public investment to extend the locks might be warranted. Instead, access to the locks is determined on the basis of delays caused by having to wait for others to clear the lock. Long waits to transit the locks indicate either that the locks should be extended or that current demand for the locks is being managed poorly. The public interest requires that the relevant government agency have responsibility for both managing the traffic and investing in lock extensions. Approaches for traffic management include nonstructural options such as tradable permits, congestion tolls, scheduling traffic, and charging for the time taken to transit a lock. This management problem interacts with a larger, more contentious one. Midwest grain could be moved on several routes for export. In addition to going by barge to New Orleans, grain could be shipped by rail to St. Louis and then by barge to New Orleans. It could also be shipped by rail to the Great Lakes or by rail to the Columbia River, then by barge or by rail to West Coast ports such as Portland. Thus, in addition to farmers, towboat operators, and recreational users, railroads, and ports (such as New Orleans, St. Louis, and Portland) also have a large stake in the issue of lock extensions and grain transportation on the UMR –IWW.

Demand for waterway transportation is a derived demand that depends on demand for grain in other nations and the cost of shipping grain to the customer. Iowa grain competes with Illinois grain, as well as with Argentinian, Brazilian, and Canadian grain. Shipping costs are an important determinant of which grain is cheapest in Yokohama or Shanghai. Congestion at Mississippi River locks could result in Brazil getting the sale and Iowa land being used for other crops. The combination of fertile land in the Upper Midwest and a cheap water transport system has conveyed a large advantage to American grain.

Fundamentally, Congress directs the Corps to conduct the wrong analysis in assessing the benefits and costs of lock extensions under the current approach to waterway traffic management. Improving traffic management is a more immediate, cost-effective, and environmentally sustainable way to handle congestion than through traditional capacity (supply side) expansion. Because traffic is managed by waiting time and service rules that were not designed to internalize congestion costs, lock demand is artificially high. If the benefits of lock extensions are based on waterway traffic levels without any type of traffic management system, the analysis will thus overstate the social benefits of extensions and could lead to lock extensions where none are justified. If traffic on the waterway was properly managed, the economic justification for some lock extensions would disappear. Congress has the authority to determine public policies for inland waterways and has the responsibility to make such determinations. If Congress believes that the public interest is served by subsidizing navigation on these waterways, it is within Congress' authority to subsidize navigation. This committee notes that past decisions by Congress and the Corps imply that both believe that commercial traffic on inland waterways is of great value to the public. Benefits are thus estimated on the basis of serving demand, where the level of demand is determined by private costs, rather than by the higher, collective costs of all of the system's users. We note this implicit assumption and the bias in the resulting analysis. Having done that. we now proceed to advise the Corps on how to conduct a benefits analysis under their assumptions.

#### **Federal action is key to ensure increased use of inland waterways for freight transportation --- private action will fail**

DOT 2011 (United States Department of Transportation, April 2011, “America’s Marine Highway Report to Congress”, <http://www.marad.dot.gov/documents/MARAD_AMH_Report_to_Congress.pdf>”)

Despite significant progress in short sea container transportation in Europe and recent successful service startups here in the United States, America's Marine Highway must still overcome barriers before it can reach its potential. Disincentives to increased use of the Marine Highway include the unfamiliarity of shippers with this domestic transportation alternative, the lack of an established network of frequent service for container and trailer cargoes, the need for coordinated investment in port infrastructure and vessels, tax issues, and the fact that public benefits attributable to the use of Marine Highway services do not factor into many private sector transportation decisions.

The private sector will ultimately be the key to the success of America’s Marine Highway through innovation, outreach, and investment. Private operators must demonstrate to shippers and the public that they can provide highly reliable and cost-effective transportation services by sound management and implementation of the most appropriate technologies for the safe and efficient delivery of cargoes and passengers. They must make efforts to provide greater schedule frequencies and lower the overall cost of service. They must reach out to potential customers, addressing their specific needs and concerns.

Without strong leadership from the Federal government, however, the nation's rivers and coastal waterways will continue to be underutilized for domestic container and trailer freight transportation. It is difficult for private operators to support the scale of investment needed to initiate large scale operations. Private operators are particularly disadvantaged by the fact that many of the important public benefits of water transportation, including congestion reduction, environmental sustainability, and system resiliency, cannot be captured in the form of higher revenues or lower costs to company profits. Government action is required to help overcome these challenges and assist the expansion of Marine Highway services in a significant manner.

#### The federal government is required by law to control inland waterways

Haulk, 98 – Ph.d in Economics, Research Director of the Allegheny Institute for Public Policy and former senior business economist with the Federal Reserve (Jake, “Inland Waterways as Vital National Infrastructure: Refuting "Corporate Welfare" Attacks”, <http://38.106.4.84/docs/haulk--inland_waterways_as_vital_national_infrastructure.pdf>)

With this study, Dr. Haulk convincinginly answers the critics of federal waterways funding who argue that such infrastructure investment represents a form of “corporate welfare.” Bolstered by tax-cutting and budget-balancing fervor and a rising tide of resentment over "federal dependent corporations," as former Labor Secretary Robert B. Reich termed it, a number of think-tanks and taxpayer groups have called billions of dollars in cuts in programs which they believe benefit industries rather than the public interest. One of these is the Army of Engineers' civil works program, which evaluates, plans, constructs, operates, and maintains the nation's inland waterways system. According to those who agitate for vastly reduced or total elimination of federal funding for shallow-draft waterways-funding which has nonetheless been provided since the 18th century-the expenditures are nothing more than "elaborate subsidies for a handful rich and powerful barge and towboat companies." As this paper this is an extreme exaggeration, one that unfairly masks the myriad benefits provided by inland and intracoastal waterways to a major of the United States. A key point raised by Dr. Haulk, and ignored every "corporate welfare" study, is that the inland waterways system is a unique treasure. It cannot be owned by any company or state. It is the exclusive domain of Uncle Sam, and the federal government is legal "guardian," with the responsibility to ensure that the national is served. As transportation arteries, the waterways are a public open to all, with intense competition guaranteeing that freight are continually at a bare minimum. The waterways suffer somewhat because their vital cargo-capacity lies largely away from public view. Yet, at any given time, of tons of bulk commodities-such as coal, chemicals, petroleum, fertilizer, iron and steel, and building materials-are moving along America's rivers and waterways. And the goods are moving efficiently, economically and safely. When the sum users of the inland waterways system are totaled up, they far outnumber the “handful of barge companies” described by the Cato Institute as the only beneficiaries of federal waterwyas spending. The lack of a good definition of “corporate welfare” also hinders any attempt to include the waterways system as a recipient of government largesse. As Dr. Haulk points out, navigation is but one component inland waterways system. Flood control, shore protection, municipal industrial water supply, bank stabilization, water recreation, and hydroelectric power generation are all benefits provided by our waterways. The total return on the federal investment in these many times greater than their cost, and has much wider influence individual study to date has documented. Dr. Haulk's paper is excellent contribution to "corporate welfare" studies, as it examines budget outlays in a broader-and thus more long-term-context. It presents all the facts, not merely those that are economically convenient a certain viewpoint.

The reality is that the American waterways system passes every test which the Cato Institute and other think tanks have used to ascertain federal program is a legitimate government investment or "corporate welfare." The Progressive Policy Institute, for example, as part of its corporate welfare study, asserts that "those who receive support project should bear part of the project's cost." The waterways satisfy this requirement. User charges, in the form of the highest fuel tax transportation mode, fund 50 percent of the cost of new construction major rehabilitation. Competitiveness artificially supported by subsidies? In fact, it's the other way around. The waterways hold overland rates in check and provide an cost-effective, alternate form of transport in the vast midcontinent as well as in coastal regions. Subsidies harming American competitiveness abroad? Without the waterways, millions tons of American grain might never reach ports to be exported, jeopardizing America's competitive edge and undermining agricultural livelihoods across the country.

It has become fashionable for some groups to issue yearly reports decrying the billions of dollars spent by the federal government on a wide range of subsidies, tax breaks, and questionable outlays benefitting certain industries. However, each report seems to be driven by a specific agenda and is often quite narrow in focus and economic analysis. With waterways, however, the scope is much broader. Waterway serve not a single business, but a vast collection of individual businesses, entire economic sectors, and geographic regions. Dr. Haulk's paper serves answer charges against the inland waterway system by broadening focus to the point where the entire range of benefits and returns examined rationally. In that light, federal support of the inland system appears as it should - a prudent investment with an even remarkable economic return.

### --- XT: Government Action Necessary

#### Government is key – only way to ensure successful management and funding

Colonel Donald E. Jackson Jr. March 14 2007, Leveraging the Strategic Value of the U.S. Inland Waterway System, USAWC STRATEGY RESEARCH PROJECT, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA469583>)

Transportation infrastructure requires a strategic-level approach to management, funding, and integration. National policy makers must balance the strengths and limitations of each transportation industry sector, ensuring their collective capabilities support projected U.S. economic and national security requirements. Based upon the capabilities inherent in each of these industries, supporting infrastructure must be available, expanded, or modernized that enable them to meet current and future transportation requirements. American transportation infrastructure requires continual investment to remain a viable means of moving freight, as well as routine maintenance, periodic modernization, and expansion to maintain adequate operability. The federal government has a Constitutional responsibility to provide adequate transportation infrastructure that supports the nation’s economy, as a means of regulating interstate commerce. While federal responsibilities for transportation infrastructure are collectively substantial, they are, however, widely disbursed and not well coordinated. 6 Congress is responsible for synchronizing the efforts of industry stakeholders and government entities, making tough decisions on resource allocations that collectively meet the strategic requirements of the transportation system. This effort requires both an interagency and intragovernmental approach.

### AT: CPs --- Delays Bad

#### Any further delay risk collapse and economic crises --- including electricity price spikes

WSJ, 11 (1/6/2011, Jennifer Levitz And Cameron McWhirter, The Wall Street Journal Online, “Old Locks Jam River Traffic; Delays on the Water Hurt Shippers, Push Prices Up as Renovation Efforts Stall,” Factiva, JMP)

On the busy Ohio River system, 2,500 miles of waterways that begin near Pittsburgh and run to the Mississippi River, river haulers lost nearly 80,000 hours to lock outages in 2009, up from about 55,000 hours in 2005, according to the Corps. Some of the outages were planned, to allow for repairs, but many were unplanned, the Corps said.

"Things could snap at any moment—that's what keeps you up at night," said Col. William Graham, commander of the Pittsburgh district for the Corps. The failure of many locks at once would create an "economic disaster," causing coal, grain fertilizer, and other goods shipped by water to spike in price, he said.

Some 60% of U.S. grain exports and 20% of coal used for electricity generation is moved by barge, according to Waterways Council, an industry group.

### AT: Other Transportation CPs

#### Waterway transportation is 9 times cheaper than trucking and 3 times cheaper than rail

GAO 12 (Jan 26, 2011, U.S. Government Accountability Office, A Comparison of the Costs of Road, Rail, and Waterways Freight Shipments That Are Not Passed on to Consumers, <http://www.gao.gov/products/GAO-11-134>)

Road, rail, and waterway freight transportation is vital to the nation's economy. Government tax, regulatory, and infrastructure investment policies can affect the costs that shippers pass on to their customers. If government policy gives one mode a cost advantage over another, by, for example, not recouping all the costs of that mode's use of infrastructure, then shipping prices and customers' use of freight modes can be distorted, reducing the overall efficiency of the nation's economy. As requested, this report (1) describes how government policies can affect competition and efficiency within the surface freight transportation sector, (2) determines what is known about the extent to which all costs are borne by surface freight customers, and (3) discusses the use of the findings when making future surface freight transportation policy. GAO reviewed the transportation literature and analyzed financial and technical data from the Department of Transportation (DOT), the Army Corps of Engineers (Corps), and the Environmental Protection Agency to make cross-modal comparisons at a national level. Data limitations and assumptions inherent in an aggregate national comparison are noted in the report.

Public spending, tax, and regulatory policies can promote economic efficiency in the freight transportation sector when they result in prices that reflect all marginal costs (the cost to society of one additional unit of service). These costs include private costs; public costs, such as infrastructure maintenance; and external costs, such as congestion, pollution, and accidents. When prices do not reflect all these costs, one mode may have a cost advantage over the others that distorts competition. As a consequence, the nation could devote more resources than needed to higher cost freight modes, an inefficient outcome that lowers economic well-being. Inefficient public investment decisions can result when all construction and other fixed costs are not passed on to the beneficiaries of that investment. GAO's analysis shows that on average, additional freight service provided by trucks generated significantly more costs that are not passed on to consumers of that service than the same amount of freight service provided by either rail or water. GAO estimates that freight trucking costs that were not passed on to consumers were at least 6 times greater than rail costs and at least 9 times greater than waterways costs per million ton miles of freight transport. Most of these costs were external costs imposed on society. Marginal public infrastructure costs were significant only for trucking. Given limitations in the highway, rail, and waterway economic, financial, technical, and environmental data available for the analysis, GAO presents conservative estimates. While freight costs are not fully passed on to consumers across all modes, a number of issues are important for decision makers to consider when proposing policy changes to align prices with marginal costs or reduce the difference between government fixed costs and revenues. Costs can vary widely based on the specific characteristics of an individual shipment, such as the geography and population density of the shipment's route, and the fuel-efficiency of the specific vehicle carrying it. Policy changes that align prices with marginal costs on a shipment-by-shipment basis would provide the greatest economic benefit, but precisely targeted policy changes can result in high administrative costs. By contrast, less targeted changes--such as charging user fees based on average costs, subsidizing more efficient alternatives, or broadly applying safety or emissions regulations--can change the overall distribution of freight across modes, but may provide fewer benefits. Although the current configuration of transportation infrastructure can limit the shifting of freight among modes, price changes can prompt other economic responses. Over the longer term, there is greater potential for responses that will shape the overall distribution and use of freight services. GAO is not making recommendations in this report. GAO provided a draft of this report to DOT and the Corps. DOT provided technical suggestions and corrections, which were incorporated as appropriate. The Corps had no comments

#### **Movement from barge to rail would destroy the rail industry, and the economy**

C. James Kruse et al 2011, Director at Center for Ports & Waterways Annie Protopapas and the Associate Research Scientist, Zafarbek Ahmedov Graduate Research Assistant, Bruce McCarl Professor, Ximing Wu Associate Professor James Mjelde Professor, December 2011, “AMERICA’S LOCKS & DAMS: “A TICKING TIME BOMB FOR AGRICULTURE?””, <http://www.unitedsoybean.org/wp-content/uploads/Americas_Locks_And_Dams.pdf>)

Currently, rail capacity cannot be considered constrained. However, general demand for rail transportation (all commodities) is projected to grow at a fast rate through 2035. The resulting level of congestion would affect nearly every region of the country and would likely cause severe price adjustments and congestion delays without significant investment in railroad infrastructure. A potential diversion of barge traffic to rail would further add to the forecasted demand resulting in devastating effects on rail infrastructure, our economy, and our standard of living.106

Rural rail network lines have declined, and abandonments by Class I railroads, short lines, and regional companies continue. The push to trainload operations increased overall capacity while making individual shippers and smaller elevator firms carry the cost of assembly of those unit train volumes. Guaranteed railcar ordering systems provide efficiency but at increased cost. Determining effective capacity available to agriculture is complex and cannot be separated from service issues, rate levels, structure, and competition for traffic.

Adequate rail capacity is necessary to move agricultural products to market in an efficient and cost-effective manner. Rail capacity constraints force traffic from rail to truck, increasing transportation costs and damage to highways. Capacity constraints were common from 2003 through the first half of 2006. Weaker demand for rail freight transportation beginning in late 2006, and a recession that began in December 2007 resulted in adequate rail capacity for agricultural products during the harvest of 2006, and from 2007 through the first half of 2009. However, capacity constraints are expected to occur again when the economy recovers. Increased use of the rail lines, which benefited the railroads financially, also contributed significantly to rail congestion. Each route mile during 2007 carried, on average, 171% more traffic in ton-miles—nearly three times the traffic—than in 1980. By the end of 2007, short line and regional railroads operated nearly 46,000 main line miles of track—a little more than 30% of the U.S. railroad network. Short line and regional railroads often provide rail service to rural shippers on lines that otherwise would have been abandoned.

The capacity of the car fleet in tons increased nearly 14% from 1976 to 2007, even though the number of railcars decreased by more than 18%. %. The ton-miles increased nearly 93% from 1980 through 2007, indicating that railcars in 2007 were loaded more frequently than in 1976 due to shorter cycle times. The number of engines available to the Class I railroads has increased 34% since 1992. The aggregate horsepower of those locomotives also steadily increased, up 71.5% since 1992. Railroads are relying more and more on privately owned cars to provide the capacity to handle shipper demands, shifting the investment burden from the carriers to the shippers. Since 1981, shippers and other investors have provided 88% of all new railcar acquisitions.

#### Water transport is the most environmentally sound and economically viable form of transportation

Krouse 5/18 (Peter, 2012. Politifact Ohio Writer. “Rep. Bob Gibbs touts water transportation for efficiency, safety and cost” <http://www.politifact.com/ohio/statements/2012/may/28/bob-gibbs/rep-bob-gibbs-touts-water-transportation-efficienc/)WKS>

Rep. Bob Gibbs is a big proponent of water transportation. As chair of the House Subcommittee on Water Resources and Environment (part of the Committee on Transportation and Infrastructure) he recently held a hearing on the soundness of the country’s inland waterway system, which includes the Ohio River. Gibbs, a Republican from Holmes County, finds the system lacking. Deferred maintenance resulting from budget constraints on the U.S. Corps of Engineers increases the likelihood of a calamity befalling the system, he said at the April 18 hearing. If improvements aren’t made, it could doom the country’s inland water system, he said, and that would be a costly bit of negligence because water transportation is a vital cog in our economy "Water transportation is the most fuel efficient, least polluting, safest, and least expensive means of moving cargo," he said. That’s a pretty definitive statement. PolitiFact Ohio decided to check it out. First of all, Gibbs was referring to inland waterways and their barge traffic that runs north and south along major navigable rivers, such as the Mississippi, Missouri and Ohio. River barges usually carry large volumes of low-value commodities, such as grain and coal. They compete to varying degrees with railroads and trucks, but more often than not they work in tandem. Ninety percent of all barge traffic depends on a connection with either rail or truck, said Chris Dager, research economist at the University of Tennessee. Trillions of dollars of freight moves each year over the country’s transportation network, which includes 4 million miles of highways and roads, 140,000 miles of rail and 25,000 of commercially navigable waterways. The problem with a blanket statement that any form of transportation is the cheapest or safest is that it can vary depending on the circumstances. A commodities broker shipping corn from Iowa to New Orleans, for example, would send it by barge down the Mississippi, not by rail or truck. It will take longer to ship — the down river speed is about 9 mph — but cost far less. But if time is of the essence, or if a river with loading terminals isn’t handy, rail or truck may be the only feasible options. Over-the-road delivery has a cost advantage at times because a trucker can drop off a load hundreds of miles away and usually find something to haul back on his return trip. That’s known as back-hauling and while it occurs usually 90 percent of the time with long-haul trucks, the rate is only 45 to 50 percent for barges, said Larry Bray, a research economist at University of Tennessee. Railroads, on the other hand, usually return with empty cars, except for containers and boxcars. And some areas of a river are more efficient than others. On the lower Mississippi River, barges move along unimpeded, but on the upper reaches they move more slowly because of multiple dams and locks. And when it comes to delays, some rail and highway locations are legendary for their congestion. With all that in mind, let’s consider some numbers. As of 2010, a river barge could transport an average of 640 tons of cargo per mile on a gallon of diesel, Dager said, thanks to recent improvements that include barges with deeper drafts and computer systems that provide up-to-the-minute profiles of a river bottom. Railroads have made their own improvements, including larger railcars, better engines, and improved business modeling. They can now carry an average of 490 ton-miles of cargo per gallon of diesel, according to Dager. Trucks are the least fuel efficient, with an average of 75-to-150 ton-miles per gallon of diesel, depending on how far they travel. In addition, some social costs aren’t passed along to the consumer that need to be acknowledged. These include government subsidies for infrastructure (something trucks benefit from greatly, waterborne vessels to a much less extent, and railroads the least), congestion, and the effects on health and safety. Those costs in the aggregate are highest for trucks, followed by rail and then water transportation, according to a 2011 report by the Government Accountability Office called "Surface Freight Transportation: A Comparison of the costs of Road, Rail, and Waterways Freight Shipments That Are Not Passed on to Consumers." And then there’s this statement from Mitchell Moss, director of the Rudin Center for Transportation Policy and Management at New York University’s Wagner Graduate School of Public Service: "Water transportation is one of the most economical ways to move cargo, especially bulk cargo." While there are comparative advantages to each mode of transportation, Moss said, on average water is the least expensive and most fuel efficient. So, it appears that Gibbs was correct when he said water transportation is the most fuel efficient way to move cargo, as well as the least expensive. He also said water transportation was the cleanest and safest way to move cargo. Those specific factors also are addressed in the GAO report. The report states that trucks generate 238 pounds of particulate matter with a diameter of 2.5 microns or less per million ton-miles of freight delivered. That compares to 36 pounds for rail locomotives and 23 pounds for waterborne vessels. Trucks also generate more than 6,000 pounds tons of nitrogen oxide per million ton-miles, compared with nearly 1,350 pounds for locomotives and about 938 pounds for waterborne vessels. And when it comes to greenhouse gases, barges spew forth the least amount. Finally, water transportation accounts for fewer accidents and injuries per ton-mile of delivered freight than trucks and rail, according to the GAO. Gibbs said that water transportation is the cheapest, safest, cleanest and most fuel efficient way to move cargo. Clearly, it’s the most fuel efficient on average. It’s also safer and cleaner. As for the expense, because barge traffic is so dependent on rail and trucking, those two modes of transportation could have an impact. But that said, the experts we talked to were persuasive that on average, water transportation is least expensive. On the Truth-O-Meter, Gibbs’ statement rates True.

#### Volatile fuel prices makes water transportation preferable

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Future Fuel Prices and the Demand for Inland Navigation Capacity

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

At the simplest level, escalating fuel prices favor inland navigation over other freight modes. The per-ton-mile rate of fuel consumption of waterway vessels is generally lower than a similar figure for railroad locomotives and several times less than the corresponding rate for trucks. This said, a number of factors partially mitigate navigation's advantage in this area. n12 Even so, this advantage seems likely to persist for the foreseeable future.

### AT: Rail CP

#### Rail is not a suitable replacement for waterways transportation --- especially for coal

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Could Expanded Railroad Service Eliminate the Need for Commercial Navigation?

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

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

#### Rail is either not suitable or will drive up costs that wrecks the competitiveness of industries

Bray, 11 --- Center for Transportation Research, University of Tennessee, Knoxville (9/21/2011, Larry G., Congressional Documents and Publications, House Transportation and Infrastructure Subcommittee on Water Resources and Environment Hearing - "The Economic Importance and Financial Challenges of Recapitalizing the Nation's Inland Waterways Transportation System,” Factiva, JMP)

Next, there is the issue of both equipment and line-haul track capacity. A wholesale diversion of waterway traffic to the nation's rail network would require roughly 100 thousand additional railroad freight cars and 2,500 additional locomotives. n10 It would also increase total annual railroad tonnage by roughly 33 percent. n11 The additional traffic could be readily absorbed on some route segments. On others, however, it would require substantial capacity expansions through the addition of mainline tracks, passing sidings, and signal upgrades. There is no reason to expect that the railroad industry could not accomplish these increases. However, given its self-proclaimed limited ability to raise capital funds, there is no guarantee that this could be done without outside (federal) assistance.

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

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

### 2ac Obama Good

#### Turn --- Obama’s currently pushing for a more unpopular proposal and the corn industry supports the aff

Boselovic, 12 (3/25/12, Len, Pittsburgh Post-Gazette, “LEGISLATION PROPOSED TO FUND DETERIORATING LOCKS AND DAMS,” Factiva, JMP)

Some are proposing tolls as a way for industry to shoulder more of the costs. In the proposed budget he sent to Congress in February, President Barack Obama, a Democrat, proposed raising $1.1 billion over 10 years by charging barge operators tolls for using locks. Locking fees have been proposed since the 1930s, but Congress has never approved them.

"We are adamantly opposed to a lockage fee," said Greg Guenther, a Belleville, Ill., farmer who was among the corn growers in Washington, D.C., last week to lobby for Mr. Whitfield's bill and other farm legislation.

#### Widespread support and no vocal opposition

Waterways Journal, 11 (2/7/2011, Editorial, “Objections Stifle Plan To Improve Infrastructure,” <http://www.waterwaysjournal.net/news020711.html>, JMP)

According to Cornel Martin, president and chief executive officer of Waterways Council Inc., who expressed disappointment over rejection of the investment plan, “the plan enjoys wide support, and has generated no vocal opposition,” he said.

Martin has indicated numerous times in the past that water transportation is “our nation’s most environmentally sound, energy efficient and congestion-relieving mode of transportation.” That conclusion is well documented.

#### Barge and towing industry support the plan

WSJ, 11 (1/6/2011, Jennifer Levitz And Cameron McWhirter, The Wall Street Journal Online, “Old Locks Jam River Traffic; Delays on the Water Hurt Shippers, Push Prices Up as Renovation Efforts Stall,” Factiva, JMP)

The barge and towing industry is lobbying members of the new Congress to spend more on fixing locks and dams and overhauling the way the government finances and oversees river projects.

A 20-year capital-development plan by the Inland Waterways Users Board, which monitors use of the fuel tax, calls for the Corps to spend $7.6 billion to fix the lock-and-dam system over the next 20 years, with both the industry and the government paying more.

The industry's fuel tax would rise from about 20 cents a gallon now to between 26 cents and 29 cents a gallon, raising about $110 million a year, compared with the current $85 million, according to the users board.

### AT: Economy Disads

#### Water infrastructure investment spending is uniquely good --- boosts growth, jobs and competitiveness

The Waterways Journal, 10 (5/17/2010, “Editorial: Prudence Suggests Better Stewardship Of Spending,” <http://www.waterwaysjournal.net/editorial051710.htm>, JMP)

For as long as we can remember, federal reports have acknowledged that investment in water resources development has paid good dividends. At a time when the government is struggling with ways to increase employment, thereby providing a much needed boost to the economy, we suggest that Congress pay close attention to a 20-year plan intended “to keep our waterways reliable and bring billions of dollars in benefits to our economy, creating and maintaining a host of jobs along the way.”

As reported this week by WJ’s Carlo J. Salzano, Matt Woodruff, director of government affairs for Kirby Corporation, was among witnesses May 6 at a Senate committee hearing called to examine the ways that investment in the nation’s water resources infrastructure creates and saves jobs and increases America’s economic competitiveness. Woodruff is also general counsel of Waterways Council Inc. His purpose was to enlist the committee’s help with the 20-year-plan, which was adopted by the Inland Waterways Users Board (WJ, April 19, 2010). It includes a recommendation that the current diesel fuel tax be increased by 30 to 45 percent, Salzano reported.

Also appearing before the committee was Mitch White, representing the Associated General Contractors of America. He is general counsel for the Manson Construction Company, Long Beach, Calif., well-known in the heavy marine construction and dredging business. White urged the committee to act swiftly to bring about passage of a new Water Resources Development Act “as a means of providing a legislative vehicle which, when coupled with significant funding, will substantially boost construction activity.”

The messages Woodruff and White delivered are in keeping with pronouncements by committee Chairman Sen. Barbara Boxer (D-Calif.) and Sen. James M. Inhofe (R-Okla.), ranking member of the committee. Both see job creation as top priority. Sen. Boxer cited estimates by the U.S. Army Corps of Engineers showing that “every $1 billion in federal investment in water resources projects creates about 26,000 jobs.” She said that projects, policies and programs authorized by WRDA “are essential components of creating jobs and keeping our economy growing.” (A House subcommittee is already considering 2,200 project requests for WRDA 2010.)

Salzano quoted Inhofe as saying, “the two things the federal government should invest in are national defense and public infrastructure.” He disagreed with critics who say Corps projects are a waste of taxpayer dollars and that WRDA 2007 was “full of pork projects.” (That is the last year a WRDA was passed.) According to Inhofe, “Investments in infrastructure—including water resources infrastructure such as navigation channels, ports, flood control and hurricane protection measures—not only have short-term job creation benefits, but more importantly, they help bring about long-term economic development opportunities.” Inhofe said he tried to see that a greater percentage of stimulus dollars were directed to infrastructure, but “Unfortunately, that didn’t happen.”

Woodruff pointed out that inland waterways infrastructure construction projects have been underfunded, while Trust Fund surpluses have been spent. He said we have too little to show for that investment and that emphasis has been placed on starting projects rather than finishing them. “Under the 20-year-plan,” he said, “25 projects would be finished in the next 20 years, instead of six, and the country would avoid between $350 million and almost $1.2 billion in project-cost growth.”

While it was the combined railroad and environmental lawsuit that held up the Locks and Dam 26 replacement project for virtually a decade (not government mismanagement), the delay increased the cost of the project from $383 million to just over $1 billion and added $7.5 billion in increased railroad shipping costs—the railroad’s own estimate. In the case of the 25 projects described by Woodruff, he said we will gain at least $2.8 billion that would be lost if completion were to be delayed.

Billions in stimulus dollars have been handed out in a fashion that is not producing the economic stimulus desired to help our nation recover. Further, many of the projects to which money has been given are frivolous, not necessary, and do not provide lasting employment. On the other hand, improving the nation’s infrastructure—in this case the inland waterways, Great Lakes and coastal areas—will provide employment benefits and other lasting economic benefits for decades to come. Woodruff emphasized, “Barge transportation is the greenest, safest and most energy efficient mode of surface transportation.” America without barges “would be a more congested, polluted, costly and dangerous place.”

Prudence is the key word. It is prudent for government to provide better stewardship to see that scarce dollars are spent wisely and not frivolously. We can think of no better expenditure than water resources development.

#### Turn --- current piecemeal funding makes inevitable projects more costly

WSJ, 11 (1/6/2011, Jennifer Levitz And Cameron McWhirter, The Wall Street Journal Online, “Old Locks Jam River Traffic; Delays on the Water Hurt Shippers, Push Prices Up as Renovation Efforts Stall,” Factiva, JMP)

Waterways infrastructure is funded by both the barge and towing industry and the federal government. The industry pays a fuel tax into a trust fund for waterways construction, and the cost of projects is generally split 50-50 with the government.

But many projects authorized for funds by Congress don't receive enough federal money each year to remain on schedule, said Jeanine Hoey, a chief of the Corps' engineering division. "If you are building a house, and you buy a door one year, and next year you buy a garage door, and the next a couple of windows—if you had bought the whole house together it would have been much cheaper than buying each little piece at a time," she said.

Piecemeal funding accounted for a third of cost overruns on projects, according to a 2008 study by the Corps. The remaining two-thirds of problems were design complications, some traced to the Corps' own decisions, the study found. One project to repair locks at Paducah, Ky. began in 1993, with a cost estimate of $775 million over seven years. The still-unfinished project is now estimated to cost $2 billion and won't be complete until around 2018. The Corps says the project has been underfunded in all but five years.

Unpredictable funding has stymied the Charleroi Locks, which is part of a project with an original $556 million price tag that has now ballooned to nearly $1.5 billion, according to the Corps.

#### Inland water way transportation investment generates $3 dollars in revenue for every $1 spent

ASCE, 12 (American Society of Civil Engineers, Report Card for America’s Infrastructure, “Illinois - Navigable Waterways,” <http://www.infrastructurereportcard.org/node/178>) DG

As the world's leading maritime and trading nation, **the U.S. relies on an efficient and effective marine transport system to maintain its role as a global power.** **Navigable channels provide efficient and economical corridors for moving 2.3 billion tons of the nation's domestic and foreign commodities.** The 110 million tons of material transported annually on Illinois waterways are equivalent to 4.4 million semi trailer truck loads or 1.5 million rail cars. For every $1 invested to improve navigation infrastructure, U.S. gross domestic product (GDP) increases more than $3. **Illinois’s waterways account for a large percentage of that system and contribute greatly to the country’s economy, according to the Illinois Chamber of Commerce Infrastructure Council.** Unfortunately, in recent years **national investment in water resources projects has not kept pace with economic and social expansion. Over the last 30 years, the U.S. population has increased more than 40 percent while the GDP has tripled, from $2.5 to $7.5 trillion**. Meanwhile, **capital investment in public water resources infrastructure has decreased by** 70 percent. For example, in the 1970s, the USACE's civil works construction appropriations were approximately $4 billion. However, in the 1990s, funding dropped to an average of $1.6 billion a year. Demographers predict that over the next 20 years, the U.S. population will grow by 50 million to a total of 325 million. Over the next 10 years, the GDP is expected to increase to $12.5 trillion. Undoubtedly, such **growth will place a greater demand on the performance of the navigable waterways infrastructure. Without significant new investment, the size of the investment gap will widen and our navigable waterways will not be able to provide the benefits we have come to expect.** Since navigable waterways make up such a significant portion of shipping in the Midwest, it is reasonable to conclude Illinois will experience similar financial challenges.As a whole, **the country isn’t making the necessary investment in modernizing its waterways system.** Timely maintenance is being deferred and there is an estimated $500 million operations and maintenance backlog on the navigable waterways in Illinois. The D- reflects the navigation locks currently have unacceptable reliability. **Delays cost consumers more than $100 million per year. All but one of the navigation locks along Illinois waterways are more than 50 years old.** Thirty-four of the 38 locks on the Upper Mississippi River are only 600 feet long, requiring inefficient and risky double lockages. **There is an increased demand for efficient transportation due to growing world population and GDP creating the real possibility of missed revenue opportunities.** There is more than $500 million in the maintenance backlog, which is growing each year**. For each $1 spent on operations and maintenance there is a return of $6 in reduced shipping costs. A failure of the navigation system would have a drastic impact on the local economy. The industry supports 400,000 jobs.**

### 2ac T – “Infrastructure Investment”

#### Administration doesn’t currently support the capital investment plan

Waterways Journal, 11 (2/7/2011, Editorial, “Objections Stifle Plan To Improve Infrastructure,” <http://www.waterwaysjournal.net/news020711.html>, JMP)

The Obama administration has come out against the long-term capital investment plan developed jointly by the Corps of Engineers and the Inland Waterways Users Board.

Waterways Council Inc. voiced its disappointment but indicated its intention to continue working with Congress to address the problem.

How long will it take to convince the administration that boosting employment levels is a critical step in alleviating the economic problems we face, and that investing in infrastructure is among the very best ways to put people back to work? Waterways infrastructure is not the only infrastructure to which that advice applies, but the inland waterways system is in critical condition. Therefore, investment in improvements could help us reach two major goals: boost employment and fix an infrastructure that is vulnerable to breakdown. According to many sources, including The American Waterways Operators, more than 44 percent of the inland locks and dams are at least 50 years old, and many are too small to efficiently handle the large tows that transit them daily.

## Harbor Maintenance Trust Fund

#### There is $5.65 billion in sufficient funding, it just needs to be used for targeted waterway investment

Holliday 08 (2008, Barry, Chairman, Realize America's Maritime Promise Harbor Maintenance Trust Fund Fairness Coalition, <http://www.ramphmtf.org/>)

The Harbor Maintenance Trust Fund (HMTF) was established in 1986 to fund the operation and maintenance of ports and harbors and is funded by the Harbor Maintenance Tax (HMT).

Appropriations from the HMTF, which are primarily used by the Army Corps of Engineers for maintenance dredging, dredged material disposal areas, jetties, and breakwaters, have lagged behind revenues into the HMTF for several years. The resulting HMTF surplus was approximately $5.65 billion at the end of FY10 and continues to grow by hundreds of millions of dollars each year.

Due to inadequate appropriations from the HMTF, navigation channels are getting narrower and shallower due to sediment accumulation. The U.S. Army Corps of Engineers recently reported that almost 30 percent of commercial vessel calls at U.S. ports are constrained due to inadequate channel depths. This means vessels laden with American-made goods cannot carry all they are capable of holding because they cannot get through channels that are not being adequately maintained, nor can ships with imports for the U.S. market enter many ports fully laden due to the same concerns. This drives up the cost of our nation's exports and imports and increases the risk of vessel grounding and associated oil spills.

Inadequately maintained harbors are becoming like blocked arteries, threatening to choke off the lifeblood of our economy. With our economy trying to recover from a major recession, America’s international trade must not be run aground because available funding that was collected for needed and regular dredging of America's commercial waterways is being withheld.

Thousands of good–paying American jobs would be created or maintained by using HMTF revenues for their intended purpose: maintaining America’s waterways.

Enough HMT revenue is collected each year to meet all of the nation’s authorized harbor maintenance needs, but less than two–thirds of it is appropriated for harbor maintenance. Charging maritime commerce this tax while failing to provide the service for which it was established is grossly unfair.

#### Appropriating all revenues collected by the Harbor Maintenance Trust Fund will ensure effective maintenance and keep export costs contained and improve the economy

HMTFFC 08 (2008, Harbor Maintenance Trust Fund Fairness Coalition, “Realize America's Maritime Promise,” <http://www.ramphmtf.org/>)

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Appropriations from the HMTF, which are primarily used by the Army Corps of Engineers for maintenance dredging, dredged material disposal areas, jetties, and breakwaters, have lagged behind revenues into the HMTF for several years. The resulting HMTF surplus was approximately $5.65 billion at the end of FY10 and continues to grow by hundreds of millions of dollars each year.

Due to inadequate appropriations from the HMTF, navigation channels are getting narrower and shallower due to sediment accumulation. The U.S. Army Corps of Engineers recently reported that almost 30 percent of commercial vessel calls at U.S. ports are constrained due to inadequate channel depths. This means vessels laden with American-made goods cannot carry all they are capable of holding because they cannot get through channels that are not being adequately maintained, nor can ships with imports for the U.S. market enter many ports fully laden due to the same concerns. This drives up the cost of our nation's exports and imports and increases the risk of vessel grounding and associated oil spills.

Inadequately maintained harbors are becoming like blocked arteries, threatening to choke off the lifeblood of our economy. With our economy trying to recover from a major recession, America’s international trade must not be run aground because available funding that was collected for needed and regular dredging of America's commercial waterways is being withheld.

Thousands of good–paying American jobs would be created or maintained by using HMTF revenues for their intended purpose: maintaining America’s waterways.

Enough HMT revenue is collected each year to meet all of the nation’s authorized harbor maintenance needs, but less than two–thirds of it is appropriated for harbor maintenance. Charging maritime commerce this tax while failing to provide the service for which it was established is grossly unfair.

To ensure that HMT revenue entering the HMTF is spent for its intended purpose, Congressmen Charles Boustany (R-LA) and Joe Courtney (D-CT) introduced H.R.104, bipartisan legislation with 26 original cosponsors. Senator Carl Levin (D-MI) and Senator Kay Bailey Hutchinson (R-TX), with 12 original cosponsors have introduced S. 412, a companion bill in the Senate. (HR-104 currently has 118 cosponsors, S 412 has 25 cosponsors)

This bill solves this problem the same way the Congress did for the Airports and Airways Trust Fund in AIR-21. It legislatively ties HMTF appropriations to HMTF revenue through a guarantee and a point of order without incurring a CBO “pay go” score or being subject to new "cut go" rule that apply to mandatory spending. It would address only future HMTF revenues, not the existing surplus.

This bipartisan legislation is supported by a broad national coalition ranging from the U.S. Chamber of Commerce, the American Petroleum Institute, and the Agriculture Transportation Coalition to ports and major labor unions.

#### Harbor Maintenance Tax will generate sufficient revenue --- surplus will grow to 8.3 billion by 2013

PNWA, 11 (August 2, 2011, Pacific Northwest Waterways Association, <http://www.pnwa.net/new/Articles/HMTF.pdf>)

The Harbor Maintenance Tax is meant to fund navigation infrastructure. In 1986,

Congress established a user fee for coastal ports and harbors - the Harbor

Maintenance Tax (HMT). The HMT was designed to provide 100% of the cost of

operations and maintenance of the nation’s deep draft and coastal waterways.

Harbor Maintenance Tax revenue is not being fully spent. Since 2003, HMT

collections have far exceeded funds appropriated for harbor maintenance, resulting in a

large and growing “surplus” in the trust fund (GAO, 2008). In 2011, over $1.5 billion

was collected and symbolically placed in the Harbor Maintenance Trust Fund (HMTF),

but only $826 million was expended. Currently, the surplus of collections over expenditures is over $6.4 billion. The GAO reports that the surplus is expected to grow

to $8.3 billion by 2013. Rather than being used for their intended purpose, these user

fees are instead used to balance the federal budget each year.

Critical navigation infrastructure maintenance needs are going unfunded.

Despite collections far exceeding expenditures, the Administration does not propose

sufficient funding to maintain the existing navigation system or to meet future needs.

For example, PNWA is requesting nearly $74 million in additional FY2013 funding for

Northwest deep and shallow draft navigation projects.

PNWA supports fully spending HMT revenue for its intended purpose. PNWA’s

membership supports fully spending HMT revenue on navigation infrastructure

operations and maintenance. PNWA does not support any effort to divert HMT revenue

for alternate purposes.

PNWA supports the creation of a Freight Trust Fund to meet port intermodal

needs. PNWA’s membership includes ports that do not have significant dredging or

jetty maintenance needs, but instead have substantial intermodal (rail/highway) needs.

PNWA supports the creation of a national Freight Trust Fund (FTF) in the next Highway

bill to address port intermodal funding needs. This FTF should be structured such that

funding is not derived from the HMTF.

#### The Harbor Maintenance Fund’s funds are stolen for other programs currently --- freeing them up would solve infrastructure problems

Lorino 11(Michael, 03/01/12 Associated Branch Pilots President. “A Case for the Harbor Maintenance Fund” http://www.barpilot.com/news/a-case-for-the-harbor-maintenance-fund/)

Three feet. That's all it takes for the maritime economy on the Mississippi River to lose billions of dollars. Because of the lack of adequate funding for dredging the lower Mississippi, we at The Associated Branch Pilots were forced to reduce the acceptable draft of ships coming in and out of the river from 47 feet to 44 feet. The results of just those three feet are already being felt from New Orleans to the heartland of America in the form of billions of dollars. To put things in perspective - the loss of three feet of draft on a Crude Oil tanker equals more than a $4 million loss. That's per ship. Consider that every day, roughly 30 ships of every kind, from oil tankers to cruise ships, make their way in and out of the river. Do the math. I can promise you, shipping companies are. And it won't be long before they realize they can be far more profitable going to ports all across South America. There's a solution. In fact, there's been a solution for more than a decade. We just haven't utilized it. The Harbor Maintenance Trust Fund was established in 1986 to give the Army Corps of Engineers the necessary funding to avoid exactly this type of disaster. A 0.125% tax based on cargo value has been levied on all cargo imported or domestically moved through our nation's rivers and harbors. This fund has produced more than a billion dollars a year for the maintenance of ports and harbors. Unfortunately, this dedicated fund was never dedicated at all. It's been raided for years to help fund other government programs through the general budget. It's been referred to by many elected officials as the "silver bullet" to address budget deficits and nearly half of it has been used for anything but our ports and harbors. Louisiana Congressman Charles Boustany, R-Lafayette, has introduced a bill to congress to free up these funds for their intended purpose. A bill in the Senate by Senator Carl Levin, D-Mich, seeks to do the same. We support Congressman Boustany and Senator Levin in these efforts, and not just because our livelihood depends on the river. Our nation's economy does as well. This isn't a Louisiana problem. This is an Iowa problem, a Missouri problem, an American problem. In a time when our economy can ill afford a major blow, investing in the Mississippi is a sure bet. Consider that for roughly every $1 spent on dredging our economy gets a $35 return. Give me a stock tip like that, and I'll put everything I have into it. So should our Federal Government. By the way, time is money and we're running out of both.

#### **The Harbor Maintenance Fund is currently not sufficient to fix problems with our ports --- undermines competitiveness**

Andel, 12 (Tom, 05/18/12. Writer, Editor-In-Chief, Material Handling & Logistics at Penton Media “Caterpillar Hoping for Transportations’ Metamorphosis” http://blog.mhlnews.com/material\_flows/2012/04/16/)

Tom France is frustrated. As director of global transportation for Caterpillar—one of America’s largest exporters of earthmoving and mining equipment—the country he represents is putting road blocks between him and the markets he serves. We’ve all heard about the sputtering, stalling contraption called the Transportation Bill. Though it was designed to smooth the routes of commerce for companies like Caterpillar, it has been burdened by so much political gamesmanship the only thing that has moved as a result of its existence is the jaws of politicians arguing for the earmarks they’ve attached to the Bill as a condition for its passage. I talked to Mr. France recently for an article on transportation strategies to appear in MH&L’s May issue, and one of the strategies he wishes was not part of his job is talking to politicians. However, the transportation bill has made that a big part of what he does. Caterpillar competes with Chinese counterparts for chunks of the world’s capital equipment market—companies who benefit from having a better transportation infrastructure to work with than he does. “It’s difficult to be an exporter from here when you have the problems we do with our outdated infrastructure,” he told me. “Our harbors need to take the bigger ships. Every business pays a harbor maintenance fee today, but that money doesn’t seem to be appropriated for such upgrades. We want that money to be earmarked for infrastructure improvements. America needs us to be a top 10 exporter so we can create more jobs. I spend a good portion of my time in meetings with representatives to get that story out. It’s unfortunate we have to do that.” I asked Mr. France if he’s optimistic about 2014, when the Panama Canal will be bringing in those mega container ships we’ve all been told about. After all, that will mean higher volumes of product on ships and we all know that transportation efficiency will mean lower costs and faster transit times through the canal, right? “The problem is there’s only one port in the U.S. those big ships can get into, and that’s the Port of Virginia because it’s deep enough to take aircraft carriers,” he responded. We need harbor deepening projects now and the funny part is even before this Transportation Bill there was money we paid every year for harbor maintenance fees. We just want them to use that money that was earmarked for years to deepen the ports. Those expansion projects have been delayed forever and by the time the Panama Canal is ready it looks like most of the ports in the U.S. will not be able to take those big container ships. That makes us less competitive compared to the rest of the world. We’re competing against worldwide companies.” This message does seem to be getting attention in Congress. U.S. Rep. Bill Huizenga of Michigan acknowledges that the $6 billion to $7 billion Harbor Maintenance Fund has been raided by politicians to cover the general budget deficit and that not enough funds remain for annual dredging projects in the Great Lakes. “I’m fighting to have harbor maintenance funds to be used for harbor maintenance,” Huizenga told The Muskegon Chronicle editorial board in an interview recently. And it is a fight, not only in Michigan but in other port regions as well. In New York the absence of dredging in the Port of Oswego since 2009 has left it with increasingly shallow areas, especially around key access point for ships. That means ships must carry lighter loads to remain more buoyant. That also means shippers have to pay for more ships because cargo must be spread out among several vessels. Last month the Senate approved a resolution calling on Congress to address the chronic backlog of harbor maintenance projects, and Sen. Carl Levin, D-Mich., took his opportunity to reinforce the message business people like Tom France have been sending to Washington. “I am pleased that the Senate has now gone on record supporting the full use of the Harbor Maintenance Trust Fund for its intended purposes: to operate and maintain our federal navigation channels, including the 69 federal harbors and channels in Michigan,” Levin said. “While I will continue to work to strengthen this provision so that it more closely mirrors the Harbor Maintenance Act, I believe including this resolution in the transportation bill is an important first step towards addressing this issue legislatively in support of our maritime infrastructure.” First step? For business people like France, this has been a long hard slog. There’s still a massive backlog of harbor maintenance projects yet to be done, and the consequences of inaction have hit hard in the Great Lakes, where the U.S. Army Corps of Engineers estimates it needs to dredge more than 18 million cubic yards of material from harbors to ensure safe navigation. 2014 is two years away. Let’s hope by that time the opening of the Panama Canal’s new locks will actually mean something more than a ribbon cutting to the logistics professionals responsible for keeping their companies competitive.

#### The Harbor Maintenance Act would keep HMT funds where they belong and solve port dredging issues.

Dredging Today 6/1 (06/01/12, Dredging Today. “Senator Supports Harbor Maintenance Act (USA)” http://www.dredgingtoday.com/2012/06/01/senator-supports-harbor-maintenance-act-usa/)

Announcing his support for the bipartisan Harbor Maintenance Act, Senator Casey noted the large impact on jobs and the economy that Pennsylvania’s ports provide. The Port of Philadelphia supports about 8,100 direct jobs and about 35,000 indirect jobs, and the Port of Erie supports nearly 1,000 jobs. “The ports of Philadelphia and Erie support tens of thousands of jobs, so keeping them operational is an economic priority,” said Senator Casey. “This bill will help fix a problem that prevents adequate funding of our ports, which will protect the jobs and economic benefit our ports provide Pennsylvania.” The Harbor Maintenance Act would require that money in the Harbor Maintenance Trust Fund be used for maintenance and operations of federal ports, instead of being redirected to other uses. Currently, a fee on imported cargo is sent to the Treasury Department, where it often sits unused. The Harbor Maintenance Act would ensure these funds are solely directed for use by the Harbor Maintenance Trust Fund (HMT). The HMT was created in 1986 to fund operations and maintenance of federal ports and harbors. Due to inadequate appropriations from the HMT, navigation channels are getting narrower and shallower due to sediment accumulation. Inadequately maintained harbors are becoming like blocked arteries, grounding numerous cargo ships and stalling economic progress. The Army Corps of Engineers estimates that the nation’s 59 busiest ports are available less than 35 percent of the time because they are inadequately maintained.

# Inland Waterways Neg

### AT: Waterway Collapse

#### Barges are less efficient than trains and our waterways are in no need of repair

Dorothy, 12 – Regional Conservation Coordinator of the Upper Mississippi River Initiative (4/18/2012, Olivia, “Bill would eliminate navigation contributions toward inland waterway infrastructure” <http://rockrivertimes.com/2012/04/18/bill-would-eliminate-navigation-contributions-toward-inland-waterway-infrastructure/>)

Response to the Briefing Memo for the Hearing “How Reliability of the Inland Waterways System Impacts Economic Competitiveness”

The Briefing Memo and find it full of misrepresentations and misinformation. Therefore we are providing a short list of bulleted fact checks to supplement the Committee. Below is a listing of several of the erroneous or misleading statements contained in the Briefing Memo countered by the facts:

Misrepresentation: Barges are more fuel efficient and less polluting than other means of transportation.

Fact: Barges are no more efficient than average trains and when compared with unit trains barges are significantly less efficient than trains. Since pollution is directly calculated from fuel efficiency, barges also have no advantage over trains in this respect.

Misrepresentation: Barge cost savings of $12.00 per ton over alternate overland modes

Fact: Barges are heavily subsidized; at least 90 percent of the systems costs are paid for by the U.S. taxpayer, by far the most subsidized mode of transportation. If the navigation industry paid an equivalent cost for constructing and maintaining the Inland Waterways System as the rail industry must for the rail system the Inland Waterways System users’ savings would be significantly reduced, possibly completely disappear. The navigation industry also pays nothing towards the restoration of the rivers that the system it uses has severely damaged; again this cost is paid solely by the taxpayers.

Misrepresentation: Condition of the Inland Waterways System, “nearly 60% of these facilities have been in service for longer than 50 years, while almost 40% are more than 70 years old.”

Fact: the vast majority of the locks have been rehabilitated, all of the locks on the Upper Mississippi River (UMR) have been rehabilitated within the last 20 years and have decades of useful life remaining. Each completed rehabilitation extends that useful life and allows the facility to function efficiently; the locks are not falling apart.

Misrepresentation: The lockage delays on the UMR and Illinois River are severe.

Fact: The Inland Waterways System has no scheduling system, the only major transportation system in the country that does not have a system. We schedule planes and trains but the navigation industry seems to be incapable of setting up a logical schedule system to improve its efficiency. However, because barge transportation has dropped so dramatically over the last decade or so on the UMR there has been decreased interest by the Corps of Engineers to pursue this useful measure. Also, the Benefit-Cost calculations for the proposed new 1,200 locks on the UMR are essentially negative – the completion of the locks would cause U.S. taxpayers a significant loss on their funding of the project.

Misrepresentation: The decline in the Inland Waterways Trust Fund (IWTF) to near zero creating a backlog of authorized yet unconstructed projects. Since 1986 the time to complete projects has dramatically increased.

Fact: The IWTF, which was not used to pay for Inland Waterways System projects until 1986, has never had an adequate contribution from the navigation industry to support the enormous wish list of the industry. The current $0.20 fuel tax contribution provides 50 percent of the systems funding but has not been increased for 18 years. Prior to 1986 the taxpayers fully subsidized the Inland Waterways System projects. It is the industries inability or unwillingness to provide adequate funding to the IWTF that has been the cause of the funding restrictions.

Misrepresentation: The need for approving the Inland Waterways Users Board Recapitalization Plan that would increase funding for the system to $380 million annually.

Fact: The Inland Marine Transportation System (IMTS) plan prepared by the Users Board is simply a means to increase the 90 percent subsidy of the Inland Waterways System even closer to the 100 percent that they enjoyed prior to 1986. The removal of all costs obligations for the IWTF related to dams, lock rehabilitations under $100 million (there has never been a lock rehabilitation over $100 million), and project cost overruns while offering a miserly $0.06 increase in the fuel tax is specious at best. This proposal does nothing for the country but increase the burden on U.S. taxpayers by an estimated $200 million per year.

Most of the above facts above were covered in the attached report released in 2010, “Big Price – Little Benefit” that we suggest the committee review before making any decisions on the Inland Waterways System.

#### Status quo solves for degrading waterways

Peabody, 12 – Major General, U.S. Army Corps of Engineers (4/18/2012, John Peabody, “HOW RELIABILITY OF THE INLAND WATERWAY SYSTEM IMPACTS ECONOMIC COMPETITIVENESS”, <http://transportation.house.gov/news/PRArticle.aspx?NewsID=1609>)

PROACTIVE EFFORTS The Corps continues to be concerned about the condition of our infrastructure and is working to address it. For the last decade we have been taking several steps to address this challenging issue, to include increased efforts to document project conditions and prioritize resource allocation to the greatest needs, target resource allocation more efficiently , reducing equipment capacity, and regionalizing assets across multiple districts. These initiatives have been increasing in scope and specificity in recent years. We also undertook a case study of lock and dam construction projects, which revealed some issues for improved construction management. Subsequently, the Corps partnered with the inland waterways navigation industry in developing a longterm approach to recapitalizing our inland navigation infrastructure. Process improvements were identified and implemented to improve and strengthen our project delivery processes. These involve more accurate and risk-based cost and schedule estimating, improved program and project management, and improved contracting methods. We have initiated risk-based asset management principals in our maintenance program, but are still seeking to fully capture and quantify reliability issues with fidelity, so as to best focus our maintenance, rehabilitation and recapitalization efforts. The Corps has embarked on a Civil Works Transformation effort that is focusing on accelerated planning studies, improving methods of delivery, and developing a detailed asset management system. All of these efforts collectively will result in more effective processes to deliver Corps projects and manage them with maximum efficiency. We have already made significant progress in becoming more efficient in managing our projects, and will continue to seek ways to further improve. We have made – and will continue to make – hard decisions with regard to use of available resources. The Corps has reduced hours of operation at several of our lower use locks and is currently initiating similar actions at several other sites. We have also deferred dredging at many of our lower use inland waterways.

### AT: Coal / Electricity Adv

#### **Lock closures would not effect the energy industry- 6 reasons**

C. James Kruse et al 2011, Director at Center for Ports & Waterways Annie Protopapas and the Associate Research Scientist, Zafarbek Ahmedov Graduate Research Assistant, Bruce McCarl Professor, Ximing Wu Associate Professor James Mjelde Professor, December 2011, “AMERICA’S LOCKS & DAMS: “A TICKING TIME BOMB FOR AGRICULTURE?””, <http://www.unitedsoybean.org/wp-content/uploads/Americas_Locks_And_Dams.pdf>)

The review of previous studies of lock closures and ad hoc coal price percentage changes indicates that short-term closure of the Ohio River increases costs, but not dramatically. The energy sector has the ability to withstand short-term closures. Often, the closure of a lock is for only one chamber—either the main or the auxiliary chamber. The ability of traffic to continue even though a chamber is experiencing a closure mitigates some of the costs. Fortunately for commerce, but unfortunately for studying effects, longer-term closures and complete closures are not in the data sets.

Although the response will be specific to each utility company and particular electricity generating plant, some responses can be generalized. These responses include:

1. Use of stocks. One of the first responses would be to rely on coal stocks at the plants. Figure 4.1 shows average coal stocks at electricity generating facilities over time. Plants have approximately two months of coal on hand.

2. Multifuel plants. The current wildcard in the energy industry is the development of shale natural gas. Plants are being built and retrofitted to be able to use dual fuels, usually coal and natural gas. For the PJM Interconnection region 34 for 2007, coal plants had capacity of approximately 78,000 megawatts. Of this capacity, approximately 63% is associated with coal plants that have backup fuel capacity. 35

3. Change suppliers. Coal moves both up and down the Ohio River, with a closure, plants upriver of the closure may be forced to change to only upriver suppliers, while plants downriver may have to use downriver suppliers. Two issues are 1) the availability of barges above and below the closure and 2) environmental regulations. Coal is partially moved on the Ohio River to meet environmental regulations through the mixing of low and high sulfur coal. Improved scrubbers and the possibility of relaxed environmental regulations in an emergency are unknowns.

4. Change mode of transportation. The most likely change is from barge to railroad transportation. One limiting factor is the availability of railcars in the affected region and the time necessary to increase the number of cars in the region. Many, if not most, plants that obtain coal by barges also have railroad spurs to the plant.

5. Purchase electricity off the grid. Additional purchases will cause an increase in both peak and off-peak wholesale electricity prices. Fluctuations in electricity prices cause by different shocks have been seen in PJM, which coordinates the movement of wholesale electricity in all or parts of the Eastern U.S. states of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia, is the world’s largest competitive wholesale electricity market. 36

6. Short-term plant closures, blackouts, and brownouts. This is the worst case scenario, but the likelihood of occurrence is small. Nothing in the previous closures or studies indicates this will happen.

**Energy substitution solves electricity prices**

**CBO, 2012**, May, Congressional Budget Office, “Energy Security in the United States,” <http://www.cbo.gov/sites/default/files/cbofiles/attachments/05-09-EnergySecurity.pdf>, JHaze

The Ability of Energy Consumers to Adjust to Disruptions The U.S. electricity system is quite flexible and operates with significant spare capacity in most circumstances. That spare capacity means that when western coal is not available to electricity providers in the East, for example, they can shift generation to facilities that rely on coal from Illinois or Appalachia or increase generation from natural gas or renewable sources. In addition, some facilities are maintained in reserve and operated only during periods of peak electricity demand or during a disruption at another facility. Thus, when the price of one commodity used to generate electricity rises, another commodity can be substituted, keeping electricity prices relatively stable.

#### Consumers can adapt to electricity price spikes

CBO, 2012, May, Congressional Budget Office, “Energy Security in the United States,” <http://www.cbo.gov/sites/default/files/cbofiles/attachments/05-09-EnergySecurity.pdf>, JHaze

Disruptions in the supply of energy impose both direct costs and indirect costs on households and businesses faced with higher energy prices. When supply disruptions cause energy prices to rise, U.S. households and businesses incur direct costs by paying more for goods and services (such as electricity, gasoline, and heat) produced by that energy. The magnitude of those costs—whether incurred on a temporary or persistent basis—hinges, in part, on the options available for consumers to lower their expenditures on energy. In the near term, consumers can respond to higher energy prices in a number of ways—for example, by changing the temperature on their thermostat, switching to energy-efficient light bulbs, driving less or more slowly, or vacationing away from home less frequently. Those responses limit the cost increases that consumers face. Over the long term, consumers have more options for reducing their exposure to disruptions in energy markets because they have more time to budget for and make energy-saving decisions. For example, they can decide where to live or locate a business, what type of vehicle or fleet to purchase, and whether to buy heating and air conditioning units that are more energy-efficient. The more near-term and longterm alternatives consumers have available for responding to disruptions in energy markets, the less exposure they have to those disruptions. The direct costs—greater spending on some goods and services—would cause U.S. households and businesses to reduce their consumption of other goods and services, particularly if there were limited near-term alternatives for consumers to use less energy. That reallocation of resources among sectors and to energy producers would impose indirect costs on the economy that many economists consider to be the primary channel through which disruptions in energy supply affect the economy. 2

#### Coal price spikes don’t go global- not an international commodity like oil

CBO, 2012, May, Congressional Budget Office, “Energy Security in the United States,” <http://www.cbo.gov/sites/default/files/cbofiles/attachments/05-09-EnergySecurity.pdf>, JHaze

Disruptions in the supply of any commodity tend to raise that commodity’s price; however, disruptions in the supply of oil have a **much larger effect** on prices than interruptions in the supply of other energy commodities. The extensive network of pipelines, shipping, and other options for transporting oil around the world means that a single world price for oil prevails, after accounting for the quality of that oil and the cost of transporting it to the marketplace. Except for countries where the price of oil is regulated or subsidized in certain ways, disruptions related to oil production that occur anywhere in the world raise the price of oil for **every consumer** of oil, ***regardless of the amount*** of oil ***imported or exported*** by that consumer’s country. In contrast, the high cost of moving natural gas, coal, nuclear power, and renewable energy limits their markets to geographically bounded regions, such as North America. Consequently, foreign disruptions have had little or no effect on the prices of those fuels in the United States.

#### No price shocks for non-oil energies

CBO, 2012, May, Congressional Budget Office, “Energy Security in the United States,” <http://www.cbo.gov/sites/default/files/cbofiles/attachments/05-09-EnergySecurity.pdf>, JHaze

The Likelihood of Disruptions and the Ability of Suppliers to Adjust to Them A substantial amount of oil is produced in countries that are vulnerable to disruptions resulting from geopolitical, military, or civil developments, and few countries other than Saudi Arabia have much spare production capacity in the near term to offset such disruptions. In contrast, the U.S. markets for natural gas, coal, nuclear power, and renewable energy either are less prone to long-term disruptions or have significant spare production and storage capacity. For example, U.S. producers and consumers of natural gas maintain a significant reserve in storage (30 percent of annual consumption in 2010). Similarly, stocks of coal in 2010 represented 9 weeks of U.S. consumption and, over the past decade, producers of coal in the United States maintained an average spare production capacity of 17 percent. Much of the limited potential for disruptions in the supply of those fuels involves their transport across the United States (via pipeline, railcar, river barge, or truck), for which redundancy and spare transport capacity exist.

#### Non-oil energy sources don’t have a cascade effect

CBO, 2012, May, Congressional Budget Office, “Energy Security in the United States,” <http://www.cbo.gov/sites/default/files/cbofiles/attachments/05-09-EnergySecurity.pdf>, JHaze

Any disruption has the potential to raise prices unless producers of the affected commodity are able to offset the disruption by quickly boosting their own production or drawing down their own stores of the commodity. The price increase from any such disruption would be similar for all consumers in the same global, regional, or local market as that in which the disruption occurred. Because producers of oil have a limited ability to increase production to offset disruptions and because oil is traded in a global market, disruptions **anywhere** in the world would be expected to raise oil prices for **all consumers**. In contrast, producers of coal, natural gas, nuclear power, and renewable energy maintain excess production capacity or storage to offset disruptions. Also, because those commodities are traded in regional or local markets, disruptions outside the United States, Canada, and a few other nearby trading partners would probably not affect their price in the United States.

#### Natural gas production at an excess now- price increases only causes more usage

CBO, 2012, May, Congressional Budget Office, “Energy Security in the United States,” <http://www.cbo.gov/sites/default/files/cbofiles/attachments/05-09-EnergySecurity.pdf>, JHaze

Most importantly, U.S. producers and consumers of natural gas maintain a significant reserve of natural gas in storage (30 percent of annual domestic consumption in 2010), which is drawn down or added to fairly regularly; in contrast, oil storage in the United States represents a much smaller supply of annual world consumption (less than 4 percent in 2010). 14 That storage provides firms that use natural gas a significant cushion against temporary disruptions in supply. In addition, in some parts of the United States, more natural gas is produced than can be sold profitably, causing producers to dispose of the excess. 15 A persistent disruption that put upward pressure on natural gas prices could create sufficient incentives for firms to build additional infrastructure to enable them to sell their excess natural gas.

#### Natural gas lowers energy costs

Greenstone, 6-1-12**,** Michael, Director, Economic Studies, The Hamilton Project Michael Greenstone is the 3M Professor of Environmental Economics in the Department of Economics at the Massachusetts Institute of Technology. From 2009-10 he served as the chief economist at the White House’s Council of Economic Advisers. Adam Looney is a senior fellow in Economic Studies and policy director of The Hamilton Project. His research focuses on tax policy, labor economics, inequality and social policy. Previously, Looney was the senior economist for public finance and tax policy with the President’s Council of Economic Advisers and has been an economist at the Federal Reserve Board. “The Role of Oil and Gas in Driving Job Growth ,” <http://www.brookings.edu/up-front/posts/2012/06/01-jobs-greenstone-looney?rssid=LatestFromBrookings&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+BrookingsRSS%2Ftopfeeds%2FLatestFromBrookings+%28Latest+From+Brookings%29&utm_content=Google+Reader>, KHaze

Increased Natural Gas Supplies and Lower Prices In recent years, hydraulic fracturing and horizontal drilling techniques have enabled the recovery of natural gas reserves that were previously thought to be too difficult or costly to access. These new techniques led domestic shale gas production to increase by nearly 50 percent between 2008 and 2009 alone. Largely as a result of this shale revolution, total U.S. natural gas production jumped from 18.5 trillion cubic feet in 2006 to 23 trillion cubic feet in 2011 (Energy Information Agency 2012). This increased production has had a major impact on the price of natural gas. The figure below shows historical average residential prices of natural gas in the United States—that is, natural gas mainly used for home heating and water heating—as well as the future natural gas prices that were expected in 2008 (in blue) and in 2012 (in red). Between 2009 and 2011, natural gas prices were, on average, approximately $2.08 per million Btu lower than they had been projected to be in 2008. The average U.S. household saved roughly $75 in 2009, $91 in 2010, and $107 in 2011 on its heating bills. From 2012 to 2020, the average American household is expected to save approximately $73 per year. In total, the lower natural gas prices are projected to save households $109.5 billion between 2009 and 2020. And these savings are just part of the benefits to the overall economy. In particular, they do not account for households’ savings resulting from lower electricity prices; natural gas comprises approximately 20 percent of electricity consumption—a share which is projected to increase. Furthermore, they do not account for the savings that accrue to businesses, especially heavy industries and manufacturers that rely on energy to power their operations. Lower natural gas prices present an opportunity for households and businesses to decrease their energy costs considerably.

### AT: Deforestation

#### Amazon depletion declining

Watts, 6-7-12**,** Jonathan, The Guardian, “Amazon deforestation at record low, data shows,” <http://www.guardian.co.uk/environment/2012/jun/07/amazon-deforestation-illegal-logging-brazil>, KHaze

**Deforestation of the Amazon has fallen to its lowest levels *since records began*,** according to data recently released by Brazil's National Institute for Space Research. The boost for the environment comes a week after president Dilma Rousseff was criticised for weakening the forest protection measures widely credited for the improvement, and two weeks before Brazil hosts the Rio+20 Earth summit. Using satellite imagery, the institute said 6,418 sq km of Amazon forest was stripped in the 12 months before 31 July 2011 – the smallest area since annual measurements started in 1988. The data continues an encouraging trend. Since the peak deforestation year of 2004, the rates of clearance have fallen by almost 75%. "This reduction is impressive; it is the result of changes in society, but it also stems from the political decision to inspect, as well as from punitive action by government agencies," Rousseff said. She was speaking at a ceremony on Tuesday to mark the opening of two new nature reserves: the 34,000-hectare (83,980 acres) Bom Jesus Biological Reserve in Paraná, and the 8,500-hectare (20,995 acres) Furna Feia National Park in Rio Grande do Norte. To mark World Environment Day, the Brazilian president also signed a number of other measures to expand existing parks, protect areas of biodiversity and recognise the land rights of indigenous communities. Rousseff said Brazil was "one of the most advanced countries" for sustainable development, but its impressive efforts have been undermined by new legislation that reduces requirements on farms created by illegal logging to reforest portions of cleared land. Under domestic and international pressure, Rousseff vetoed 12 of the most controversial sections of the revised Forest Code, but environmentalists are furious that many other changes will go through. The Brazilian government insists that the compromise was a realistic balance of agricultural and environmental priorities. Environment minister Izabella Teixeira says 81.2% of the country's original forest remains – one of the highest levels in the world. But 10 former environment ministers have criticised the measures as a "retrograde step". In an unusual cross-party collaboration, they jointly signed a letter opposing the change to a code that they described as "the single most relevant institutional basis for the protection afforded to forests and all the other forms of natural vegetation in Brazil." Amazon deforestation over the years Economic and technological factors have also contributed to the slowing of clearance rates. The rise in the value of the Brazilian currency and the fall of soya and beef prices in the wake of the 2008 global financial crisis eroded the incentive for land clearance for agricultural exports. Implementing regulations remains extremely difficult in the wild west-like frontiers of the Amazon and the interior forest regions. But enforcement has been strengthened by increasingly precise satellite monitoring by the National Institute for Research in the Amazon. This November, Brazil plans to launch a new satellite with a resolution of five metres, up from the current level of 250 metres. With close-to-real-time date, the central authorities are able to quickly notify federal police and environment officials about ongoing, illegal land clearance operations. The government has also responded rapidly and flexibly. After a two-month spurt of clear-cutting in Mato Grosso early last year, it established a task force to strengthen countermeasures and sent 700 inspectors to the region. This year, eight municipalities were added to the list of critical areas, bringing them under closer inspection. According to local media, the task force has apprehended 325 trucks, 72 bulldozers and 62,000 cubic metres of illegally cut timber and embargoed 79,500 hectares of land in the region. The environment ministry says further factors in the drop of deforestation are regularisation of land tenure, initiatives to encourage sustainable practices and the expansion of protected areas. According to the UN Global Biodiversity Outlook, Brazil accounts for nearly 75% of the 700,000 sq km of protected areas created around the world since 2003.

#### Amazonian deforestation will only decrease

Butler, 2012**,** May, Rhett A., Monga Bay, “Deforestation in the Amazon,” <http://www.mongabay.com/brazil.html>, KHaze

Since 2004 the rate of deforestation in the Brazilian Amazon has fallen nearly 80 percent to the lowest levels recorded since annual record keeping began in the late 1980s. Importantly, this decline has occurred at the same time that Brazil's economy has grown roughly 40 percent, suggesting a decoupling of economic growth from deforestation. While this is welcome news for Earth's largest rainforest, it is nonetheless important to understand why more than 580,000 square kilometers (224,000 square miles) of Amazon forest has destroyed in Brazil since 1980. Why has Brazil lost so much forest? What can be done to stop deforestation? Why is the Brazilian Amazon being Destroyed? In the past, Brazilian deforestation was strongly correlated to the economic health of the country: the decline in deforestation from 1988-1991 nicely matched the economic slowdown during the same period, while the rocketing rate of deforestation from 1993-1998 paralleled Brazil's period of rapid economic growth. During lean times, ranchers and developers do not have the cash to expand their pasturelands and operations, while the government lacks funds to sponsor highways and colonization programs and grant tax breaks and subsidies to forest exploiters. But this has all changed since the mid-2000s, when the link between deforestation and the broader Brazilian economy began to wane. The reasons for the decline in Brazil's deforestation rate are debated, but most would agree that several factors come into play, including macroeconomic trends (a stronger Brazilian currency reduces the profitability of export-driven agriculture), increased enforcement of environmental laws, improved forest monitoring by satellite, new incentives for utilizing already deforested lands, expanded protected areas and indigenous reserves, heightened sensitivity to environmental criticism among private sector companies, and emerging awareness of the values of ecosystem services afforded by the Amazon.

#### Cattle ranching outweighs their internal link

Butler, 2012**,** May, Rhett A., Monga Bay, “Deforestation in the Amazon,” <http://www.mongabay.com/brazil.html>, KHaze

***Cattle ranching is the leading cause of deforestation*** in the Brazilian Amazon. This has been the case since at least the 1970s: government figures attributed 38 percent of deforestation from 1966-1975 to large-scale cattle ranching. Today the figure is closer to 60 percent, according to research by Brazil's National Institute for Space Research (INPE) and its Agricultural Research Corporation (Embrapa). Most of the beef is destined for urban markets, whereas leather and other cattle products are primarily for export markets. Brazil is today the world's largest exporter and producer of beef. Much of its expansion has taken place in the Amazon, which currently has more than 80 million head of cattle, up from 26.6 million in 1990 and equivalent to more than 85 percent of the total U.S. herd. The Brazilian Amazon has more than 214,000 square miles of pasture, an open space larger than France.

#### Alt cause- Brazilian road building

Butler, 2012**,** May, Rhett A., Monga Bay, “Deforestation in the Amazon,” <http://www.mongabay.com/brazil.html>, KHaze

Infrastructure Improvements Road construction in the Amazon leads to deforestation. Roads provide access to logging and mining sites while opening forest frontier land to exploitation by poor landless farmers. Brazil's Trans-Amazonian Highway was one of the most ambitious economic development programs ever devised, and one of the most spectacular failures. In the 1970s, Brazil planned a 2,000-mile highway that would bisect the massive Amazon forest, opening rainforest lands to (1) settlement by poor farmers from the crowded, drought-plagued north and (2) development of timber and mineral resources. Colonists would be granted a 250-acre lot, six-months' salary, and easy access to agricultural loans in exchange for settling along the highway and converting the surrounding rainforest into agricultural land. The plan would grow to cost Brazil US$65,000 (1980 dollars) to settle each family, a staggering amount for Brazil, a developing country at the time. The project was plagued from the start. The sediments of the Amazon Basin rendered the highway unstable and subject to inundation during heavy rains, blocking traffic and leaving crops to rot. Harvest yields for peasants were dismal since the forest soils were quickly exhausted, and new forest had to be cleared annually. Logging was difficult due to the widespread distribution of commercially valuable trees. Rampant erosion, up to 40 tons of soil per acre (100 tons/ha) occurred after clearing. Many colonists, unfamiliar with banking and lured by easy credit, went deep into debt. Adding to the economic and social failures of the project, are the long-term environmental costs. After the construction of the Trans-Amazonian Highway, Brazilian deforestation accelerated to levels never before seen and vast swaths of forest were cleared for subsistence farmers and cattle-ranching schemes. The Trans-Amazonian Highway is a prime example of the environmental havoc that is caused by road construction in the rainforest. Road construction and improvement continues in the Amazon today: Paving of roads brings change in the Amazon rainforest and the Chinese economy drives road-building and deforestation in the Amazon

#### Deforestation inevitable

Howden, 5-14-12**,** Daniel, Common Dreams, “Deforestation: The Hidden Cause of Global Warming,” <http://www.commondreams.org/archive/2007/05/14/1175>, KHaze

Indonesia became the third-largest emitter of greenhouse gases in the world last week. Following close behind is Brazil. Neither nation has heavy industry on a comparable scale with the EU, India or Russia and yet they comfortably outstrip all other countries, except the United States and China. What both countries do have in common is tropical forest that is being cut and burned with staggering swiftness. Smoke stacks visible from space climb into the sky above both countries, while satellite images capture similar destruction from the Congo basin, across the Democratic Republic of Congo, the Central African Republic and the Republic of Congo. According to the latest audited figures from 2003, two billion tons of CO2 enters the atmosphere every year from deforestation. That destruction amounts to 50 million acres - or an area the size of England, Wales and Scotland felled annually. The remaining standing forest is calculated to contain 1,000 billion tons of carbon, or double what is already in the atmosphere. As the GCP's report concludes: "If we lose forests, we lose the fight against climate change." Standing forest was not included in the original Kyoto protocols and stands outside the carbon markets that the report from the International Panel on Climate Change (IPCC) pointed to this month as the best hope for halting catastrophic warming. The landmark Stern Report last year, and the influential McKinsey Report in January agreed that forests offer the "single largest opportunity for cost-effective and immediate reductions of carbon emissions". International demand has driven intensive agriculture, logging and ranching that has proved an inexorable force for deforestation; ***conservation has been no match for commerce***. The leading rainforest scientists are now calling for the immediate inclusion of standing forests in internationally regulated carbon markets that could provide cash incentives to halt this disastrous process. Forestry experts and policy makers have been meeting in Bonn, Germany, this week to try to put deforestation on top of the agenda for the UN climate summit in Bali, Indonesia, this year. Papua New Guinea, among the world's poorest nations, last year declared it would have ***no choice*** but to continue deforestation **unless it was given financial incentives to do otherwise.**

#### Plan can’t solve all causes of deforestation

Global Change, 2010**,** a regent of the University of Michigan, April, “Global Deforestation,” <http://www.globalchange.umich.edu/globalchange2/current/lectures/deforest/deforest.html>, KHaze

Deforestation has many causes. Population pressures, profits, and internal social and political forces can all push up the rate of forest loss. Access to markets, requiring roads and capital, is an additional powerful force, recently expanded due to the suite of changes referred to as globalization. Poor countries with expanding populations, inequitable distribution of wealth and power, and possibly corrupt governments are especially vulnerable. In Indonesia, powerful families allied with government rulers control large and highly valuable timber concessions. These forests are being rapidly liquidated, at enormous profit. In Brazil, many of the rural poor are moving to cities for work, and not finding it. Productive farmland is controlled by a wealthy elite with a long history of land ownership, and so many of the rural poor are landless. **By opening its frontier – the Amazon forest - to its landless poor, Brazil seeks to provide a safety valve for what otherwise might be an explosive political situation.** In many areas, poor people have few options to make income, and forests have few protectors, and so land is cleared for agriculture and valuable timber is sold for profit.

#### Asian rainforest destruction triggers the impact

The Guardian 7, lexis

The numbers are damning. Within 15 years 98% of the rainforests of Indonesia and Malaysia will be gone, little more than a footnote in history. With them will disappear some of the world's most important wildlife species, victims of the rapacious destruction of their habitat in what conservationists see as a lost cause. Yet this gloomy script was supposed to have included a small but significant glimmer of hope. Oil palm for biofuel was to have been one of the best solutions in saving the planet from greenhouse gases and global warming. Instead the forests are being torn down in the headlong rush to boost palm oil production. More startling is that conservationists believe the move to clear land for this "green fuel" is often little more than a conspiracy, providing cover to strip out the last stands of timber not already lost to illegal loggers. In one corner of Kalimantan, the Indonesian part of Borneo, a mere 250,000 hectares or 1,000 sq miles&-& almost twice the size of Greater London&-&of the 6m hectares of forest allocated for palm oil by the government have actually been planted. "When you look closely the areas where companies are getting permission for oil palm plantations are those of high-conservation forest," said Willie Smits, who set up SarVision, a satellite mapping service that charts the rainforest's decline. "What they're really doing is stealing the timber because they get to clear it before they plant. But the timber's all they want; hit and run with no intention of ever planting. It's a conspiracy." The fear is that Indonesia's aim of almost doubling the 6.5m hectares under oil palm plantation in the next five to eight years&-&tripling it by 2020&-&to meet rocketing worldwide demand will afford ever-greater opportunities for the timber thieves. An estimated 2.8m hectares of forest is already lost every year. Until now palm oil&-&of which 83% is produced in Indonesia and Malaysia&-& was produced for food. But the European Union's aim of cutting greenhouse gas emissions by 20% by 2020, partly by demanding that 10% of vehicles be fuelled by biofuels, will see a fresh surge in palm oil demand that could doom the rainforests. That is likely to kill off the "flagship species" of wildlife such as the Asian elephant, the Sumatran tiger and the orang-utan of Borneo which are already under enormous pressure from habitat loss. Plantation owners regard the orang-utan as pests because it eats the young palm oil plants and hunt them down ruthlessly. "In reality it's over for the tiger, the ele phant and the orang-utan," said Mr Smits, who founded the Borneo Orang-utan Survival Foundation. "Their entire lowland forest habitat is essentially gone already. We find orang-utan burned, or their heads cut off. Hunters are paid 150,000 rupiah (�8.30) for the right hand of an orang-utan to prove they've killed them." Two orang-utan rehabilitation centres run by the foundation on Indonesian Borneo are overflowing with more than 800 of the primates, most rescued from oil palm plantations. But the east Kalimantan centre, where rescued babies are reared by hand, has been unable to release any rescued orang-utan into the wild for four years because suitable habitat has proved impossible to find. In central Kalimantan the picture is worse: it has never staged a release in almost a decade. A new UN report The Last Stand of the Orangutan: State of Emergency found that forests in Indo nesia and Malaysia are being felled so quickly that 98% could be gone by 2022. Yet the orang-utan's lowland forest could disappear much sooner. "We're looking at the virtual extinction of the orang-utan in 15 years, or less," said Raffaella Commitante, primatologist at the foundation's east Kalimantan centre. "There are between 50,000 and 60,000 on Borneo and 7,000 on Sumatra. But 5,000 -10,000 are killed each year."

### AT: Biodiversity

#### Biodiversity loss inevitable

Goméz-Pompa 04**;** (Arturo, university professor in the Department of Botany and Plant Sciences at the University of California, “The Role of Biodiversity Scientists in a Troubled World,” *BioScience*, March 2004, pp.217-225, BioOne)

Even as biological devastation occurs unchecked throughout the world, biodiversity scientists who are willing to risk their lives to collect rare or unknown taxa for scientific purposes—entering guerrilla-inhabited areas, coca plantations, malaria-infested locations, or areas in the process of deforestation by forest exploitation—can experience months of waiting as they try to obtain official collecting permits. To obtain the permits, they may have to accept nonsensical requests, such as determining the number of new species that they expect to find and the number of specimens that they will be collecting. They may have to prepare quarterly reports of the fieldwork in process. The most frustrating part of this process is the lack of precise information on the application requirements and on the time needed to obtain a permit. This problem is not unique to developing countries. In the United States, scientists complain about their inability to undertake important biodiversity research. In areas that are or will be protected because of species of concern, restrictions resulting from written and unwritten rules have resulted in the loss of existing permits or the refusal to issue new ones. Restrictions often change on a monthly or daily basis, preventing valuable information from being gathered. In most cases, permits are required for each individual administrative unit (state, county, and agency). These units include each national forest, Bureau of Land Management property, national park, county park, and so on. No scientist can be expected to predict an unusual event that will trigger an important biological process, and thus to request all the necessary permits beforehand. In many cases, important new findings are being lost because of the regulations that frustrate some of our most renowned scientists.

#### Multitude of causes for species loss – plan doesn’t solve them all

FERN 09; (Forests and the European Union Resource Network, created by the World Rainforest Movement, <http://www.fern.org/pages/cbd/bioloss.html>)

The number of species on Earth has been variously estimated to be between 10 and 100 million, although only 1.7 million of them have been described so far. To date, the loss of biodiversity is greater that at any time in the past. Some 100 species are being lost every day. Even the most insignificant-seeming species can play a crucial role in the ecosystem to which it belongs. We simply do not know what we are throwing away. Forest ecosystems are among those facing the most severe biodiversity loss.Causes of biodiversity loss The major direct causes of biodiversity loss are the fragmentation, degradation or loss of habitats; the over-exploitation of natural resources; pollution; the introduction of non-native (alien, or exotic) species and [climate change](http://www.fern.org/pages/climate/intro.html). Among the most important underlying causes of biodiversity loss are ill-fitted policies, undefined lands and resources rights, and the macro-economic context which affects both peoples and ecosystems alike.The CBD recognises that the conservation of biological diversity is an integral part of sustainable development and promotes the integration of environmental conservation with economic development, arguing that sustainable development is only possible if the earth's renewable resources are consumed in a sustainable way.

#### Unnecessary fees and self-interest prevent biologists from inhibiting species loss

Goméz-Pompa 04**;** (Arturo, university professor in the Department of Botany and Plant Sciences at the University of California, “The Role of Biodiversity Scientists in a Troubled World,” *BioScience*, March 2004, pp.217-225, BioOne)

In most cases, scientists must pay fees to be allowed to do research and make collections. I believe that this is another unnecessary obstacle to scientific discovery. Scientists should not pay fees for doing research that is of general interest and benefit to all. Instead, they should be allowed to use these resources in exchange for accepting students and collaborating with local scientists. I am sure that most visiting scientists are willing to do this. I understand the deep inequalities between developed and developing countries in terms of their scientific infrastructure, which may motivate these fees in the developing world. Yet often the government officials who promote such fees fail to recognize the need to conduct biodiversity research and to involve local scientists and students: Pay a fee, they seem to say, and you need do no more. Showing little concern for the safety of scientists or the importance of the research, they focus instead on the fear that biological riches will be stolen without compensation.Some historical examples, such as *Hevea* from Brazil and *Cinchona* from Ecuador, have been used again and again to justify these regulations. There is a widespread myth that if the seeds of these trees had not left the countries of origin, the wealth produced by their discovery could have benefited the people there. Unfortunately, the history of introduction, cultivation, and domestication of trees does not support this myth. There are many variables that need to be considered to successfully introduce a new crop into cultivation. We should remember the case of coffee, which came from the mountains of Ethiopia and was introduced to Asia and America, and that of cacao, which was introduced from Mesoamerica to South America and Africa. Generally, crops do best when they are grown far from their place of origin, in places where they can escape (at least for a while) their biotic enemies.

#### Biodiversity loss inevitable

Pynn 07**;** (Larry, staff writer at *The Vancouver Sun*, “Global warming not biggest threat: expert,” *The Vancouver Sun*, http://www2.canada.com/vancouversun/news/story.html?id=6e2988da-31ab-4697-810d-7a008306d571&p=1)

"We all worry about climate change, as we should, but it doesn't mean we shouldn't worry about protecting habitat," says James Grant, a biology professor at Concordia University in Montreal and co-author of a new report on threats to endangered species in Canada. "The really immediate causes right now for many species are things like farming, urbanization and habitat loss caused by the direct things we do." Research by Grant and his pupils shows the biggest threat is habitat loss at 84 per cent, overexploitation 32 per cent, native species interactions 31 per cent, natural causes 27 per cent, pollution 26 per cent, and introduced species 22 per cent. On average, species are threatened by at least two of the six categories. Human activities representing the biggest source of habitat loss and pollution are not industrial resource extraction, but agriculture at 46 per cent and urbanization at 44 per cent. "Farming is huge," Grant said in an interview. "The Prairies are one of the most affected habitats in the world. We've turned them into wheat fields." The southern Okanagan-Similkameen is another example, home to about one-third of species at risk in B.C. as well as a thriving agricultural industry, including vineyards, and increased urban development.

#### Biodiversity is resilient

Lomborg 01**;** (Bjørn, director of the Copenhagen Consensus Center, Danish author, academic, “The Skeptical Environmentalist: Measuring the Real State of the World,” Cambridge University Press, originally published in Danish in 1998)

The correlation between the number of species and area was formulated by the biologist E.O. Wilson in the late 1960s. The model seem appealingly intuitive. Its logic is that the more space there is the more species can exist. The theory was launched in order to explain the number of species on islands, and it works well in this context. Wilson formulated a rule of thumb: if the area is reduced by 90 percent, then the number of species will be halved. But the question is, of course, whether the theory for islands can be used on large and forested areas such as rainforests. If islands get smaller, there is nowhere to escape. If, on the other hand, one tract of rainforest is cut down, many animals and plants can go on living in the surrounding areas. One obvious thing to do would be to look at our own experiment, the one carried out in Europe and North America. In both places, primary forest was reduced by approximately 98-99 percent. In the US, the eastern forests were reduced over two centuries to fragments totaling just 1-2 percent of their original area, but nonetheless this resulted in the extinction of only one forest bird. The largest tropical study of the correlation between rainforest and the extinction of species was carried out in Puerto Rico by Ariel Lugo of the United States Department of Agriculture. He found that the primary forest had been reduced by 99 percent of a species of 400 years. “Only” seven out of 60 species of birds had become extinct although the island today is home to 97 species of birds. This indicates a serious problem with Wilson’s rule of thumb. And what is perhaps more astonishing is that even though the area of primary forest on Puerto Rico was reduced by 99 percent they ended up with *more* species of birds?

#### Species loss is overblown

Foster 7**;** (Peter, journalist, author, winner of the National Business Book Award, “Exaggerated extinctions,” 9.13.07, *The Financial Post*, http://www.financialpost.com/scripts/story.html?id=d52e2756-4cb9-4122-bf24-2cd1fd9e1ab2&k=26101&p=2)

But there are less attractive aspects of human nature, and one of them is the tendency to exploit humanity's finer instincts in pursuit of power, pelf and status. Hence "biodiversity" has been turned into a political issue, which has been taken up by the United Nations -- that fount of repressed and/or reflexive socialism -- and used as an excuse for bureaucratic empire building, cheered on by many well-meaning, and sometimes well-funded, professional naturalists. There is always one clear sign of those seeking to exploit any "problem" for political purposes: They will grossly exaggerate it.. This is frequently seen as morally justifiable. After all, action needs to be taken. So what's wrong with amping the facts? Plenty. Biodiversity is firmly and deliberately linked to alleged man-made climate change. It is the twin, and related, alleged "crisis" seized upon by the radical environmental movement and its power-and place-seeking promoters to justify radically curtailing economic activity. As such, an alleged ongoing "biotic holocaust" has become a central, unquestionable, tenet of radical environmentalism. But is it true? For a start, let's take a look at one glaring "fact:" the enormous discrepancy in the extinction numbers between the Field Museum and the IUCN. According to the IUCN, and despite its apocalyptic language, the total number of species that has gone extinct (since 1500) "has reached 785 and a further 65 are only found in captivity or cultivation." That's about 1.5 species a year. How can that figure possibly fit with the Field Museum's claims that the earth is losing 30,000 a year, and what does that tell us about the biodiversity "crisis"?

#### Species loss is exaggerated and not based on any hard evidence

Stevens 91**;** (William K., science reporter for the New York Times, author, “Species Loss: Crisis or False Alarm?” *The New York Times*, 8.20.91, http://www.nytimes.com/1991/08/20/science/species-loss-crisis-or-false-alarm.html?pagewanted=all)

The skeptics have not yet had a chance to examine Dr. Wilson's latest assessments in detail, but they have attacked earlier, similar assessments made by him and other scientists. The critics say there simply is not enough information on which to build a reliable assessment. While species constitute a "valuable endowment" and should be protected, there is "a total lack of evidence" of a biological holocaust, said Dr. Julian Simon, a University of Maryland economist. He is perhaps better known for arguing that the world's resources, coupled with human ingenuity, can support a surging population. "We're being asked to take the entire scenario on faith" and on the judgment of those who advance it, he said. The warnings of mass extinction, he said, "seem like guesswork and hysteria." Other dissenters say there is a problem, but that its dimensions simply cannot be known at the moment. No one even knows the true number of species in the world, they say. This is acknowledged by Dr. Wilson and others who share his view. Only 1.4 million species have been identified worldwide, but estimates of South American species alone range from 5 million to 50 million, and estimates of global species range up to 100 million. "When you deal with that kind of error, it's hard to say what's happening," said Dr. Michael A. Mares, a zoologist at the University of Oklahoma who is an expert on neotropical habitats. Likewise, he said, it is difficult to come up with a rate of extinction when the geographical distribution of organisms is not known. "Most of them are invertebrates," he said. "We really don't have a good handle on whether or not they're going extinct and how rapidly. The problem is data right now." More should be known, he said, before the poor countries of the world are asked to make large sacrifices to preserve tropical forests. For his part, Dr. Mares said, he believes that the wolf is not yet at the door. "The wolf is coming," he said, "but he's coming later." It is "understandable that there's disagreement," said Dr. Jared Diamond, an ecologist at the University of California at Los Angeles who has examined the problem."

### AT: Environmental Collapse

#### War outweighs and turns the environment

Shaefer 7**—**and Lieberman, – Jay Kingham Fellow in International Regulatory Affairs. Senior Policy Analyst, Energy and Environment. 2007 (Brett D. Shaefer and Ben Lieberman. “Discussing Global Warming in the Security Council: Premature and a Distraction from More Pressing Crises.” http://www.heritage.org/Research/InternationalOrganizations/wm1425.cfm)

The United Kingdom is wrong to foist this issue on the Council. First, the extent, source, and consequences of global warming are subject to debate, and the possible implications of global warming, particularly the security implications, are speculative. Even if these consequences occur as predicted in the IPCC report, they are not immediate security threats. Second, numerous policy initiatives, forums, and organizations are focused on studying and evaluating the consequences of global warming. The focus of these efforts and discussions is to clarify the science of global warming and weigh the costs of action to address global warming against the risks of inaction. A debate in the Security Council is unlikely to contribute to these ongoing efforts. Finally, the Security Council has a full docket of immediate threats to international peace and security that it has failed to resolve. Focusing on speculative threats that may arise decades in the future undermines the seriousness of the body and is an affront to those suffering from immediate crises. Worse, it distracts the Council from pressing threats to international peace and security.

#### Environmental destruction doesn’t lead to war- empirics, growth, cooperation, structural factors

Kenny, 8-29-11**,** Charles, Senior fellow at the Center for Global Development, a Schwartz fellow at the New America Foundation, and author, most recently, of Getting Better: Why Global Development Is Succeeding and How We Can Improve the World Even More. "The Optimist," his column for ForeignPolicy.com, runs weekly. “Cloudy with a Chance of Insurgency,” <http://www.foreignpolicy.com/articles/2011/08/29/cloudy_with_a_chance_of_insurgency>, KHaze

Given that climate change is likely to be associated with warmer, drier tropical regions, the study's findings led numerous commentators to warn that the world's future could be increasingly violent. Thankfully, the study -- for all its careful design and academic interest -- provides little evidence that human-induced climate change will have any such effect. The nature of the relationship between the weather and violence in the past remains open to question, and the study itself suggests reasons why we'd expect any impact to decline in the future. The paper is the latest in a line that has linked climate with violence. The Malleus Maleficarum, a 15th century Catholic treatise on witchcraft, has a whole chapter on how witches "Raise and Stir up Hailstorms and Tempests, and Cause Lightning to Blast both Men and Beasts," as economist Emily Oster notes in her study of the link between bad weather and witch burnings. During the Little Ice Age in the mid-centuries of the last millennium, witch burnings increased as the climate got cooler; as many as 1 million people were killed. In 2007, University of Hong Kong geographer David Zhang and colleagues from around the world looked at data covering global temperatures and warfare dating from 1400 to 1900 and estimated that the number of wars worldwide per year was almost twice as high in cold centuries as it was in warm centuries. This was, they suggested, because cold weather caused declining food yields and rising food prices, which brought with them famine and political instability. Further south, the usual concern is with heat and drought rather than cold and overcast weather, so the plausible relationship between climate and warfare is different. In 2009, University of California, Berkeley, economist Marshall Burke and colleagues looked at temperature and conflict data from Africa and found a positive association between warmth and war. They went as far as to argue, "When combined with climate model projections of future temperature trends, this historical response to temperature suggests a roughly 54% increase in armed conflict incidence by 2030, or an additional 393,000 battle deaths if future wars are as deadly as recent wars." But is the relationship between climate and violence really that clear? First off, even when rainfall and temperature patterns were directly included in Hsiang and colleague's statistical analysis, the association between El Niño years and civil violence remained. In other words, whatever the impact of El Niño on violence, it apparently isn't connected to its effect on precipitation levels or high temperatures in tropical countries. Perhaps, the paper suggests, El Niño's impact on violence is due to the timing of the rainfall, or altered wind patterns, or humidity, or cloud cover -- but those theories are (so far) untested. And these results regarding temperature and precipitation should come as no surprise given earlier studies on the climate-conflict link. In 2010, Halvard Buhaug, a researcher at the Peace Research Institute Oslo, re-examined Burke's earlier study of weather and war in Africa and concluded that it didn't stand up to further scrutiny. With more data, he argued, the link between rainfall, temperature, and violence disappeared -- a point accepted by Burke and his colleagues. Second, Hsiang and his co-authors are careful to clarify that they don't think El Niño caused warfare, but rather that it was a contributing factor -- that in many cases, conflicts that would have broken out anyway may have occurred earlier owing to the effects of the El Niño cycle. That fits with the conclusions of a 2008 review of the evidence linking climate to conflict in the Journal of Peace Research, which suggested that any link is contingent on a range of factors from governance through wealth to land-use patterns and "claims of environmental determinism leading seamlessly from climate change to open warfare are suspect." Indeed, saying the weather is responsible for civil war is like saying drought is responsible for famine. At most, weather can be an additional stressor to an environment already made combustible by human activities. For example, experts on the Shining Path insurgency in Peru or the Sudanese conflict might be surprised at the idea that these two conflicts are seen as prime examples of the impact of Pacific weather patterns on civil war, given that both have a whole range of causes (including poverty, twisted ideology, and a cruel and incompetent government and military response in the case of the Shining Path). The considerable limits to climate determinism are clear from the ENSO paper itself. One way of understanding the results is to look at the risks to peace associated with El Niño. Between 1950 and 2004, the chance that a conflict did not begin in any given year in any country was 97 percent, according to the data. Take the results of the paper at face value: For countries affected by El Niño, a 1-degree Celsius rise in El Niño-related temperatures decreased the probability that a conflict didn't begin to 95.5 percent. Even if there is a link, there is a lot more to explaining war and peace than the weather -- not least, those 95 cases out of 100 in which nothing happened. And in fact, Hsiang and colleague's paper contains some good news about our warmer future related to that other 95 percent: First, it suggests that the effect of El Niño on warfare declines as countries get richer. So Africa's last decade of rapid growth (with agriculture's share of the region's GDP falling from 22 to 13 percent between 1967 and 2009) should mute any future impact of climate on violence. In fact, temperatures may have been consistently hotter than average since 1990 in Africa, and precipitation consistently lower, but there has still been a drop-off in the number of civil wars ongoing since the mid-1990s and a dramatic fall in war deaths since that time. Second, the analysis points to the relative importance of factors like geopolitics in explaining the outbreak of violence. The second-highest risk of civil war between 1950 and 2004, according to the paper, was in 1989 -- a La Niña year -- part of a dramatic peak in war risk that continued until 1994, and has gone unmatched before or since. That speaks to the impact of the end of the Cold War on civil conflict. The good news is that in the period since the mid-1990s, conflict risk has been on the decline as global cooperation to settle disputes has been on the rise. Even if climate cycles are a short-term influence on conflict, the long-term trends are dominated by factors other than the weather. The argument that we should reduce greenhouse gas emissions to slow climate change is beyond reasonable dispute -- but that it will make for a more pacific world is yet to be demonstrated.

### AT: Medical Response Adv / Addon

#### Barges only have limited usefulness to respond to emergencies

Nachtmann & Pohl 2010 (January 14, 2010, Heather & Edward A., both Ph.D. associate professors in the Department of Industrial Engineering at the University of Arkansas, “Emergency Response via Inland

Waterways,” http://ww2.mackblackwell.org/web/research/ALL\_RESEARCH\_PROJECTS/3000s/3008/MBTC%203008.pdf)

This metric is useful for pinpointing which communities are best served by a medical barge. In addition, waterway based medical response is obviously limited to certain types of emergencies. Communities may spend weeks or even months recovering from large scale emergencies such as

tornadoes or earthquakes

For which events is inland waterway response appropriate?

Based on the capabilities of barges, we were able to establish that barge response

would only be effective for certain types of disasters. For example, the average

velocity of a typical barge will limit the effectiveness of an inland waterway

emergency response to a fire.

Risk of Disaster

Emergency medical barges may only be effective or viable for certain types of

emergencies or disasters. If a certain community is not likely to have any of these specific

occurrences, then it may not benefit from the services that could be offered by the barge.

We divide the Risk of Disaster factor into four subfactors including the risk levels for

tornado, earthquake, flood, and terrorist attack. The risk for each of the four disaster types

can be categorized as low, medium, or high. A low rating is given a score of one, a

medium rating is given a score of two, and a high rating is given a score of three. A

community’s overall Risk of Disaster level is determined by summing the individual values

of its risk levels for tornado, earthquake, flood, and terrorist attack. For the WEMS index,

the Risk of Disaster factor is divided into three categories: Low (4-6), Medium (7-9), and

High (10-12). Communities with overall risk levels of low, medium, or high will receive

scores of one, two, or three respectively. These risk levels can be determined by the

emergency planner developing the WEMS Index based on their knowledge of their

community’s vulnerability to catastrophic events. Other types of disasters could be

incorporated in the Risk of Disaster factor if deemed important.

#### Barges are slow and inaccessible

Nachtmann & Pohl 2010 (January 14, 2010, Heather & Edward A., both Ph.D. associate professors in the Department of Industrial Engineering at the University of Arkansas, “Emergency Response via Inland Waterways,” <http://ww2.mackblackwell.org/web/research/ALL_RESEARCH_PROJECTS/3000s/3008/MBTC%203008.pdf>)

1.2 Research Objectives

The overall goal of this research is to conduct a feasibility analysis of improving emergency

preparedness and disaster relief through utilization of inland waterway transportation. The primary

objectives of this study are to:

1) Assess the current and potential capabilities of inland waterways to assist in emergency

medical response.

While the nation has thousands of miles of navigable inland waterways, not all are

accessible year round. Also, response time will be affected by the average velocity of the

response vessel as well as the water conditions for a given day. Further investigation of

these factors will help to assess the emergency response capabilities of inland waterways

for a given community. In addition, this research provides insight into the actual number of

communities that have access to inland waterways and could potentially benefit from

waterway emergency medical response.

2) Determine which types of communities would most likely benefit from waterway-based

medical assistance and which types of catastrophic events would most likely require such

assistance. Because barges have a relatively slow response time but can

provide additional capacity for treating victims, this type of emergency is better suited for

waterway medical response.

Develop an index to measure the usefulness and feasibility of providing waterway-based

medical assistance to a given community and provide guidelines for calculating this index.

The goal is to provide emergency planners with a potentially unconsidered option

for emergency medical response via inland waterways. A WEMS index based on

measureable factors including Accessibility to Navigable Inland Waterway, Proximity to Barge Origin, Population Demands, Social Vulnerability, Risk of Disaster, and Limited

Access to Medical Services is developed to help planners assess the feasibility of using

inland waterways to provide emergency medical assistance to their communities.

Guidelines to calculate this index will help authorities plan and adequately prepare for a

disaster in their community.

The slow velocity better suits a barge to deliver

medical supplies, provide relief to overwhelmed medical facilities, or even provide

a sterile environment for on-site emergency surgeries during long-term recovery

from a disaster. In general, disasters that require long term recovery, have large

numbers of victims, or have victims that need non-urgent care lend themselves to

barge response. A barge could not, however, efficiently respond to more urgent

emergencies such as a fire or immediate medical concerns.

Accessibility to Navigable Inland Waterway

A community that is located hundreds of miles from the nearest navigable inland

waterway does not stand to benefit significantly from WEMS. In contrast, a community

that is located directly on a navigable river could potentially benefit greatly from waterway

assistance in the event of a disaster. Although ground-based medical vehicles could

possibly be transported and deployed by a barge, the effective range of the watercraft is

still limited to navigable waterways. We consider medical assistance via an inland

waterway to be infeasible if a community is located more than a three hour drive from the

nearest navigable waterway with an assumed driving speed of thirty-five miles per hour.

For the purposes of calculating the WEMS index, the Accessibility to Navigable Inland

Waterway factor is divided into two categories: Accessible (≤ 3 hours of driving time) and

Inaccessible (> 3 hours of driving time). Counties classified as Accessible or Inaccessible

receive a score of one or zero respectively.

Proximity to Barge Origin

The index is affected by how quickly a barge can respond to an emergency or

disaster in a given community. A barge is powerful yet slow. While it has the capability to

move many tons of cargo along rivers, it can take several days to travel across a state. If an

emergency occurs that requires a response within a matter of hours, a barge may only be

able to assist if the community is within a few miles of the barge’s home base. We define

Proximity to Barge Origin as how long it takes the nearest medical barge to arrive at the

nearest port on the nearest navigable waterway to the community. For the WEMS index,

the Proximity to Barge Origin factor is divided into three categories: Very Near (< 2 days),

Near (2 – 4 days), and Far (> 4 days). Communities classified as Very Near, Near, or Far

will receive values of three, two, or one respectively.

#### Many communities don’t have access to inland waterways for emergency medical assistance

Nachtmann & Pohl 2010 (January 14, 2010, Heather & Edward A., both Ph.D. associate professors in the Department of Industrial Engineering at the University of Arkansas, “Emergency Response via Inland Waterways,” pg 4, 9, 10, 11, http://ww2.mackblackwell.org/web/research/ALL\_RESEARCH\_PROJECTS/3000s/3008/MBTC%203008.pdf)

Because of the nature of inland waterways, it is not feasible that every community

would benefit from waterway-based medical assistance. Many communities do not have a

navigable inland waterway within hundreds of miles. However, areas that do have access

to navigable waterways may stand to benefit from emergency medical response via those

waterways. Our investigation reveals that the effective range of a navigable waterway for

emergency medical response is somewhat subjective. We believe travel time to be the

primary factor for determining a community’s access to a waterway. Specifically, we

believe that any community that is not within three hours (assuming a thirty-five mile per

hour travel time) of a navigable waterway does not stand to benefit from medical services

provided by a barge. The three hour threshold was set because we believe that if disaster

victims are required to travel more than three hours to reach a medical barge, they would

likely find nearer established medical facilities in other areas.

2.1.2 Emergency Planning in Rural Communities

There is limited research on emergency planning for rural areas. This may be due to the

relatively low population levels of rural areas when compared to urban areas. The literature seems

to focus on high population areas where disasters are likely to affect large amounts of people.

However, according to the Economic Research Service (ERS) of the United States Department of

Agriculture (USDA), nonmetropolitan areas in the U.S. account for 2,052 counties, contain

seventy-five percent of the Nation's land, and include seventeen percent of the U.S. population

(ERS, 2003). Because these areas represent such a large physical portion of the country and are

home to nearly fifty million U.S. citizens, emergency planning has an obvious and important role

in rural communities. In addition, rural areas must be able to adequately handle a “migration of

large populations displaced from urban areas” after a disaster (Furbee et al., 2006). While

emergency planning is important in both urban and rural settings, the planning process is different

for each area.

Challenges exist in rural emergency planning because rural areas differ greatly from urban

areas. For rural areas, population densities are lower, mass transit is virtually non-existent, and

resources are often more scarce. Even among rural areas, differences exist. Some rural areas lie in

a flood plain, others lie on a fault line, and some lie near both. Some rural areas are manufacturing

communities, while others are agriculture-based.

The dissimilarities between rural and urban 10

environments suggest that emergency plans for rural areas should likely differ from emergency

plans for urban areas. Further, differences are likely to exist even among rural emergency plans.

Further search of the literature reveals discussions of the disaster preparedness of rural

emergency medical services. A survey of rural emergency medical services (EMS) organizations

across the country revealed that many of them would be quickly overloaded by any large scale

disaster (Furbee et al., 2006). Most organizations surveyed placed a low priority on interacting

with other disaster response organizations, instead placing priority on “basic staff training and

retention.” With their limited resources, most rural EMS organizations prefer to focus on

maintaining day-to-day operations rather than sink funds into planning for an event that may never

occur. According to Furbee, et al. (2006), “there is no single standard that requires EMS

organizations to have a disaster plan,” but even if a plan exists, there is no guarantee that it is

adequate or even acceptable. The reality is that most rural medical services are not prepared for

large scale disasters. The organizations surveyed reveal low confidence levels in their preparation

for incidents involving a large number of victims. Suggestions have been made on how to improve

readiness, but funding and other resources do not exist to implement the necessary changes. The

researchers note that rural EMS organizations are further challenged by “increased reliance on

volunteers, fewer healthcare professionals…less surge capacity, and greater distance from other

needed resources.” A GAO (2005) report titled “Agency Plans, Implementation, and Challenges

Regarding the National Strategy for Homeland Security” calls for “state and local governments to

sign mutual aid agreements to facilitate cooperation with their neighbors in time of emergency.”

Mutual aid agreements among smaller communities would allow emergency planners to pool their

limited resources, providing more options for emergency response.

The same GAO report further emphasizes the importance of these agreements, because although incident response “would occur at a local level, it could spread across local, state, and even national boundaries.”

2.1.3 Challenges of Emergency Planning

Effective emergency planning is not an easy task. There are many challenges involved in

planning for the preparedness, response, and recovery process. Cutter et al. (2003) focus

specifically on the social impacts of disasters, arguing that some communities are more socially

vulnerable than others. Social vulnerability is described as the social, economic, demographic, and

housing characteristics that influence a community’s “ability to respond to, cope with, recover

from, and adapt to hazards” (Cutter et al., 2003). Each factor affects the vulnerability of each

community differently. Because every community is unique, differences in these factors result in a

different social vulnerability index (SoVI) for each community, thus further complicating the

emergency planning process.

Additional challenges arise when adapting an all-hazards approach to emergency planning.

These include proper identification of potential emergencies and the requirements for appropriate

response, “assessing current capabilities against those requirements,” and developing effective and

coordinated plans among first responders (GAO, 2005). In its response to the GAO report

Catastrophic Disasters (2006), DHS comments on the difficulties faced in emergency planning.

“Since resources are finite…tough choices must be made about how to allocate the human and

financial resources available to attain the optimal state of preparedness.” The same report

identifies another problem faced in emergency planning. As indicated by the varying SoVIs of

U.S. communities, the diversity of areas across the United States complicates large scale

emergency planning. “Because different states and areas face different risks, not every state or

area should be expected to have the same capability to prepare for a catastrophic disaster” (GAO, 12

2006).

### 1nc Politics Link

#### Capital will be key to overcome budget hawks in Congress

Boselovic, 12 (3/18/2012, Len, “Locked and Dammed: The region's 23 locks and dams are on the brink of failure,” <http://www.post-gazette.com/stories/news/environment/locked-and-dammed-the-regions-23-locks-and-dams-are-on-the-brink-of-failure-517289/?print=1>, JMP)

Debilitated locks and dams are part of a larger national problem: the lack of funding to repair or replace aging infrastructure that the economy depends on. In 2009, the American Society of Civil Engineers put a $2.2 trillion price tag on fixing roads, bridges, locks and other infrastructure.

Because many lawmakers elected in 2010 promised to slash the federal budget deficit without increasing taxes, it is unlikely that money will be forthcoming for infrastructure improvements.

"It is a function of a kind of unfortunate mentality in this country where, over time, we have become a spending nation and not an investing nation," said Michael Steenhoek of the Soy Transportation Coalition, an industry group pushing for waterways improvements.

"We just need to get back to this mentality of being an investing nation. Great nations invest in themselves," he said.

### --- 2nc Link Block

#### Link outweighs the turn --- more powerful lobbies oppose the plan

Boselovic, 12 (3/18/2012, Len, “Locked and Dammed: The region's 23 locks and dams are on the brink of failure,” <http://www.post-gazette.com/stories/news/environment/locked-and-dammed-the-regions-23-locks-and-dams-are-on-the-brink-of-failure-517289/?print=1>, JMP)

**\*\*\*Michael Hennessey is chairman of the National Waterways Foundation**

Low water pressure

The Corps and industry officials have elevated their alarms over a looming failure at a lock or dam somewhere along the 11,000 miles of river and the economic impact it would have.

The federal budget deficit is only one reason their fears have gone unheeded.

A more fundamental reason is that taxpayers do not ride on rivers. They exert no pressure on lawmakers to do something about the aging infrastructure. Moreover, the river transport industry is dwarfed by the trucking and rail industries, which have more clout in never-ending funding fights in Washington.

People "have no idea how [river transportation] is tied into jobs and the heart and soul of economic life in this country," Mr. Hennessey said. "We don't have the political muscle in Washington, D.C., that the railroads and truckers do."

#### Capital is required to overcome several hurdles despite bipartisan support

Boselovic, 12 (3/25/12, Len, Pittsburgh Post-Gazette, “LEGISLATION PROPOSED TO FUND DETERIORATING LOCKS AND DAMS,” Factiva, JMP)

Despite the bipartisan support Mr. Whitfield has received, his proposal faces considerable hurdles. It comes as partisan wrangling over the federal budget deficit and the no-tax increase credo of conservative Republicans makes it difficult to fund big-ticket projects. Mr. Whitfield and his two Republican backers have signed the no tax increase pledge sponsored by Grover Norquist of the Americans for Taxpayer Reform.

Industry advocates said even though they view the diesel tax as a user fee, some members of Congress hesitate supporting an increase.

"Anytime something comes up, it's 'remember the pledge,' " Mr. Toohey said, adding that lawmakers tell him, "You need to go talk to Grover Norquist."

There is also opposition to Mr. Whitfield's measure because it would limit use of revenue generated by the diesel tax to new locks and lock repairs costing $100 million or more. Less expensive lock repairs and all dam projects would be paid for by taxpayers.

#### Waterway investments aren’t popular --- Congress is more concerned with deficit reduction and tax cuts

Scott, 12 (May 2012, Doug, “Short Take from May 2012; ASCE Tells Congress More Must Be Invested in Inland Waterways,” <http://www.asce.org/ascenews/shorttakes.aspx?id=25769808619>, JMP)

Testifying on April 18 before the U.S. House Transportation and Infrastructure Committee’s Subcommittee on Water Resources and Environment, James A. Rossberg, P.E., M.ASCE, the Society’s managing director of engineering programs, said that efforts by the administration and Congress to address the growing investment deficit in waterways infrastructure have largely been ineffectual because of political considerations that give precedence to deficit reduction and tax cuts over the badly needed restoration of critical infrastructure.

#### Congress more focused on deficit reduction

Nagle, 11 --- president and chief executive officer of the American Association of Port Authorities (December 2011, Kurt, Industry Today, “Association: American Association of Port Authorities; Port-Related Infrastructure Investments Can Reap Dividends,” vol. 14, no. 3, <http://www.industrytoday.com/article_view.asp?ArticleID=F370>, JMP)

Meanwhile, in the United States, public funding for new navigation channel improvements has all but dried up. Lawmakers focus on reducing the deficit and eliminating appropriation “earmarks” that have traditionally funded federal navigation deepening projects. At the same time, funding for projects already approved and underway is slow, incremental and insufficient.

### --- XT: Budget Battles Make it Unpopular

The Herald Dispatch, 12 (5/24/2012, “Nation should invest in waterways facilities,” <http://www.herald-dispatch.com/opinions/x1198917856/Nation-should-invest-in-waterways-facilities>, JMP)

So there are a lot of reasons to fix this problem, but with budget concerns in Washington and on the state level, it has been difficult to come up with a long-term solution.

A trust fund was set up a number of years ago to provide funding for repairs, using government contributions and revenue from a fuel tax paid by barge operators. But in recent years, the rising costs of projects have depleted the fund, and now only a few can be completed each year.

All the while, the cost of the projects in the pipeline mount. A lock project on the Ohio River near Olmsted, Ill., is one of the worst examples. Congress approved $775 million in 1988 to replace it, but the job ran into problems and is now estimated at $3.1 billion and will not be finished until 2020, USATODAY reported.

Industry representatives and the U.S. Army Corps of Engineers have worked on a package of recommendations over the past year that would prioritize projects, improve management to bring work in on time and on budget, come up with an affordable user fee for the industry and requests a $380 million appropriation from the government each year.

In today's climate, that additional funding will be a challenge, but the stakes are high and Congress needs to find a workable solution.

Allowing the inland waterway system to continue to decline is not an option.

### --- AT: Obama Won’t Push

#### Obama would push the plan --- it was part of his ’13 budget

JOC, 12 (Mar 9, 2012 , The Journal of Commerce Online - News Story, R.G. Edmonson, Associate Editor, Inland Waterways User Fee on the Table<http://www.joc.com/infrastructure/inland-waterways-user-fee-table>) DG

Obama’s FY2013 budget calls for inland waterways investments and a ‘vessel user fee’ The Obama administration is once again proposing a new user fee to pay for capital investments in the inland waterway system, a senior Army official said. Jo-Ellen Darcy, assistant secretary of the Army for Civil Works, who commands the Corps of Engineers, told a House Appropriations subcommittee this week that **the president’s 2013 budget calls for “targeted investments in the nation’s water resources infrastructure,” to support domestic and international trade.** **In past years, commercial inland waterways operators strongly resisted an administration proposal to collect a fee from operators each time they transited a lock.** Darcy’s testimony does not specify a lockage fee, but refers to a “vessel user fee” to supplement an existing tax on fuel for commercial vessels**. All told, the Corps of Engineers is asking for $1.47 billion for construction, $2.4 billion for operations and maintenance, and $234 million for the Mississippi River and tributaries. It also proposes to use $848 million from the Harbor Maintenance Trust Fund for harbor and channel dredging. The administration had “grossly underfunded” the corps**, Subcommittee Chairman Rodney Freylinghuysen, R-N.J., said**. “While this same process happens every year, administration after administration, the disconnect between annual funding levels and the budget request level makes a challenging job even more so for the military and civilian professionals of the corps.”**

### Spending DA Links

#### The Inland Waterways User’s Board will force the full cost of most inland waterway work onto the taxpayer.

IWLA (no date, Izaak Walton League of Amerca, “Another Corporate Bailout: Inland Waterways Trust Fund”, http://www.iwla.org/index.php?ht=d/sp/i/5034/pid/5034)

The inland waterways navigation system – the locks and dams constructed on several of the country’s major rivers – is the most publically subsidized commercial transportation system in the United States, receiving about 90 percent of its funding from taxpayers. Despite this immense level of corporate welfare, the barge industry, through the Inland Waterways User’s Board, has proposed an increase in the public’s contribution, which would likely raise the subsidy to near 95 percent.

On April 13, 2010, the Inland Marine Transportation Systems (IMTS) Capital Projects Business Model, Final Report—Final Recommendations was released. We estimate the IMTS recommendations will further increase the public subsidy for inland waterway construction and rehabilitation by about $200 million annually.

The barge industry contributes about $80 million per year into the Inland Waterways Trust Fund (IWTF) through a $0.20 per gallon fuel tax that has not been increased since 1995. The IWTF currently pays the costs for half of all new and rehabilitation construction on the inland waterways system. The taxpayers fund the remaining half of construction projects as well as the cost of all of the system’s operation, maintenance, and environmental restoration – a total cost approaching $800 million per year.

The proposed changes would eliminate all industry funding for costs related to dams on the system and also require the industry to fund only lock rehabilitation projects that cost more than $100 million. The taxpayers will pay the full cost of all lock rehabilitations that cost less than $100 million. The locks cannot function without the dams, so eliminating the barge industry’s responsibility for their rehabilitation is illogical and unreasonable.

We strongly urge that the IMTS report recommendations for increasing the public’s cost-share obligations on the inland waterways system be rejected.

### Spending Links --- Wave4 Bill Specific

#### Will cost billions more

IWLA (no date, Izaak Walton League of Amerca, “WAVE4 Act - Bad Deal for Taxpayers and the Environment”, <http://iwla.org/index.php?ht=d/sp/i/25063/pid/25063>)

The WAVE4 Act (H.R. 4342) will shift the burden for funding costly inland waterway infrastructure expenses onto taxpayers, possibly leaving taxpayers on the hook for over $10 billion over the next 20 years! The WAVE4 Act will not fund necessary work to maintain the locks and dams and increase the backlog of infrastructure projects. The following summarizes some of the fundamental flaws with this legislation.

Oppose H.R. 4342 because it

Eliminates cost share for dam construction and rehabilitation.

Currently, dam rehabilitation and construction are funded through a 50-50 cost share between taxpayers and the Inland Waterway Trust Fund. Navigation argues that they should not pay to maintain and construct dams because other user groups benefit from the dams. But, the dams were built and continue to be maintained primarily for navigation. In this tough economic time, the federal government cannot afford for industry to reduce their contribution.

Eliminates cost share for lock rehabilitation.

H.R. 4342 states that navigation will contribute 50% of the cost of lock rehabilitation over $100 million, but it’s a trap! There have been 16 lock rehabilitation projects since the Inland Waterway Trust Fund was established and the average cost of a lock rehabilitation project is $30 million. No lock rehabilitation project has ever approached $100 million and no future lock project is expected to cost $100 million. So, this is just another attempt to push even more costs onto taxpayers, which will also increase the federal deficit.

Eliminates cost share for cost overruns.

Cost overruns are a certainty for every Corps construction project. Projects on the Ohio River have seen overruns of 100 to over 200 percent. Most of these overruns are due to poor planning and inadequate funding. So, instead of punishing taxpayers and forcing the federal government to pick up the tab, the Corps needs to improve its planning process and produce more reliable cost estimates.

Recommends the Army adopt the IMTS Team 20-year investment strategy.

The 20-year investment strategy lists almost 150 lock and dam construction and rehabilitation projects that will cost $15 billion over the next 20 years. But, if H.R. 4342 passes, navigation will contribute only $5 billion for these projects, while taxpayers will be on the hook for $10 billion plus any cost overruns! If the cost overrun trend continues, this means that taxpayers could be on the hook for $20-30 billion over the next 20 years. Several of the projects on the list have not been funded by Congress because they are not economically justified. Instead of increasing costs for unnecessary projects that are environmentally damaging, let’s re-evaluate project priorities, planning and funding to alleviate the backlog of projects.

#### WAVE4 will unnecessarily spend billions of taxpayer dollars

Stewart, 12 (4/16/2012, B. Stewart, The Southern, “New waterways bill draws criticism” <http://thesouthern.com/news/local/new-waterways-bill-draws-criticism/article_5edfa54e-877c-11e1-ae16-0019bb2963f4.html>)

A recent bill dealing with maintenance of the country’s waterways, co-sponsored by U.S. Rep Jerry Costello, D-Belleville, is drawing fire for its revamping of funding measures that critics say shift more of the cost burden to taxpayers.

Costello and U.S. Rep. Ed Whitfield, R-Ky., announced March 30 their filing of the Waterways Are Vital for the Economy, Energy, Efficiency and Environment Act of 2012, or the WAVE4 Act.

A joint news release from Costello and Whitfield about the bill said the WAVE4 Act requires, among other things, the use of objective criteria for the prioritization of essential construction and major rehabilitation projects and protects against cost overruns.

Additionally, the news release said it revises the current cost-sharing structure for inland waterways projects, reforms the Army Corps of Engineers internal project delivery process and calls for additional contributions from the waterways industry to pay for these vital infrastructure investments.

“This legislation represents a comprehensive effort among key stakeholders to more efficiently use the resources dedicated to improving our inland waterway system,” Costello said. “Importantly, industry has committed to paying more to meet the maintenance challenges we face, and addressing how projects are prioritized should be a part of this process. We must continue the dialogue on how we accomplish these goals — our future economic growth depends on it.”

However, critics say the revised cost-sharing mechanism places more of a burden on taxpayers instead of on companies who utilize waterways.

Thursday, Taxpayers for Common Sense awarded Whitefield with their “Golden Fleece Award” for his introduction of the Wave4 Act.

“H.R. 4342 would shift even more of the funding burden onto the treasury,” the watchdog group said in a news release. “While inland waterways users are agreeing to a 6 cent tax increase on diesel fuel, they are redefining the cost-sharing rules to shift all major maintenance costs, all dam construction costs and any potential cost overruns onto the federal treasury. Navigation locks are essentially doors through the dam to allow traffic to move up and down the river. Cost overruns are very common with U.S. Corps of Engineers projects.”

Nicholas Pinter, professor of geology, environmental resources and policy at SIU Carbondale, said the diesel fuel tax increase wouldn’t even come close to matching the 50/50 cost share for project cost-overruns currently in place.

Pinter pointed to the Olmstead Locks and Dam as a project with a significant cost-overrun, originally budgeted at $775 million. Most recent numbers estimate the final cost at more than $3 billion.

“This isn’t small stuff,” Pinter said. “This is many billions of dollars of taxpayer money being shifted around in the fine print.”

David Gilles, spokesman for Costello, said the industry’s willingness to pay more in fuel taxes was important and needed to be recognized.

Gilles said the Wave4 Act, which is in committee, was the basis for keeping a conversation about waterway infrastructure alive and reaching a compromise.

“This is not the end point of the debate; this is the beginning of the debate,” Gilles said.

#### WAVE4 will cost billions and hurt the economy

Dorothy, 12 – Regional Conservation Coordinator of the Upper Mississippi River Initiative (4/18/2012, Olivia, “Bill would eliminate navigation contributions toward inland waterway infrastructure” <http://rockrivertimes.com/2012/04/18/bill-would-eliminate-navigation-contributions-toward-inland-waterway-infrastructure/>)

Editor’s note: The following is an e-mail from Olivia Dorothy, regional conservation coordinator for the Upper Mississippi River Initiative, Izaak Walton League of America, regarding a house bill aimed at eliminating “navigation contributions toward inland waterway infrastructure.”

Tomorrow the House Transportation Committee will be voting on the WAVE4 Act, which will all but eliminate navigation contributions towards inland waterway infrastructure. I’m sorry this is such short notice. Below is language you can use when contacting Representatives on the Transportation and Infrastructure Committee. Attached is a spreadsheet with the Committee member names and email addresses for the Chiefs of Staff. If you have time, please reach out to the Committee and let them know you OPPOSE HR 4342.

Vote NO on H.R. 4342!

The WAVE4 Act (H.R. 4342) will shift the burden for funding costly inland waterway infrastructure expenses onto taxpayers, possibly leaving taxpayers on the hook for over $10 billion over the next 20 years! The WAVE4 Act will not fund necessary work to maintain the locks and dams and increase the backlog of infrastructure projects.

Oppose H.R. 4342 because it

1. Eliminates cost share for dam construction and rehabilitation.

Currently, dam rehabilitation and construction are funded through a 50-50 cost share between taxpayers and the Inland Waterway Trust Fund. Navigation argues that they should not pay to maintain and construct dams because other user groups benefit from the dams. But, the dams were built and continue to be maintained primarily for navigation. In this tough economic time, the federal government cannot afford for industry to reduce their contribution.

2. Eliminates cost share for lock rehabilitation.

H.R. 4342 states that navigation will contribute 50% of the cost of lock rehabilitation over $100 million, but it’s a trap! Their have been 16 lock rehabilitation projects since the Inland Waterway Trust Fund was established and the average cost of a lock rehabilitation project is $30 million. No lock rehabilitation project has ever approached $100 million and no future lock project is expected to cost $100 million. So, this is just another attempt to push even more costs onto taxpayers and increase the federal deficit.

3. Eliminates cost share for cost overruns.

Cost overruns are a certainty for every Corps construction project. Projects on the Ohio River have seen overruns of 100% to over 200%. Most of these overruns are due to poor planning and inadequate funding. So, instead of punishing taxpayers and forcing the federal government to pick up the tab, the Corps needs to improve their planning process and produce more reliable cost estimates.

4. Increases the fuel tax to only $0.26 per gallon.

The Inland Marine Transportation System (IMTS) Team calculated that a tax increase to $0.50 per gallon would be necessary to fund their $15 billion wish list of projects, called the 20-year Capitol Investment Strategy. But, instead of a good faith attempt to help reduce the project backlog, they are only offering to fund lock expansion. At least on the upper Mississippi River, locks are currently functioning at less than half their capacity on most of the river. Navigation traffic would have to double before lock expansion would be economically justified.

5. Recommends the Army adopt the IMTS Team 20-year investment strategy.

The 20-year investment strategy lists almost 150 lock and dam construction and rehabilitation projects that will cost $15 billion over the next 20 years. But, if H.R. 4342 passes, navigation will contribute only $5 billion for these projects, while taxpayers will be on the hook for $10 billion plus the cost of overruns! If the cost overrun trend continues, this could mean that taxpayers could be on the hook for $20-30 billion over the next 20 years. Several of the projects on the list have not been funded by Congress because they are not economically justified. Instead of increasing costs for unnecessary projects that are environmentally damaging, let’s re-evaluate project priorities, planning and funding to alleviate the backlog of projects.

#### The plan makes taxes skyrocket and wastes valuable resources.

IWLA, 10 (6/21/10, Izaak Walton League of America, “Conservation and Watchdog Groups Oppose Barge Industry's Plan To Shift Costs to Taxpayers”, http://www.iwla.org/index.php?ht=display/ContentDetails/i/5035/pid/204)

Conservation and watchdog groups sent a letter to members of the U.S. House Transportation and Infrastructure Committee late last week detailing problems in a proposal from the barge industry to eliminate existing industry financial responsibilities for the inland barge system. The industry proposal would re-write a long-standing policy established between the users of the system and the federal Treasury for sharing the cost of navigation construction.

“We strongly oppose all changes that will shift responsibility for the marine transportation system’s problems onto taxpayers. The recommendations resolve the shortfall in industry contributions by simply moving cost share obligations from the users of the inland waterways to taxpayers; and thereby further removing any incentive to contain project costs,” said Brad Walker, the Upper Mississippi River Coordinator for the Izaak Walton League of America.

The Inland Waterways Trust Fund—created as a fuel tax to pay for half of the new and rehabilitation construction on the barge navigation system—is depleted due to major increases in project spending, project cost overruns as high as double original estimates, and flat and declining navigation traffic levels yielding less revenue to the fund. There also has not been an increase in the fuel tax used to provide revenue to the fund for 15 years.

The proposed changes are contained in the report, Inland Marine Transportation Systems (IMTS) Capital Projects Business Model, Final Report, Revision 1 dated April 13, 2010 – Final Recommendations. This report prepared for the Inland Waterways Users Board, which consists primarily of representatives of the nation’s barge companies, recommends shifting the Congressionally-mandated cost share requirements for construction and rehabilitation of locks and dams on the inland waterways system from the Inland Waterways Trust Fund to the U.S. Treasury.

“This proposal represents a major retreat from long and strenuous negotiations for cost-sharing reforms dating to 1986 and would effectively off-load financial obligations for the waterways system from its local industry beneficiaries onto private citizens. And we urge Senators Durbin and Burris to oppose this misguided proposal,” said Laura Kammin of Prairie Rivers Network, an Illinois-based river conservation group.

The Corps of Engineers budget functions in a competitive nature for directing funding to projects and priorities, and the letter’s authors note that increasing taxpayer funding for the Inland Waterway System would result in reduced funding available for projects targeting environmental restoration and flood and storm damage prevention.

“It’s more than just the principle of corporate welfare that we oppose; the proposal would eat up limited resources that should go towards repairing some of the damage we’ve done to the river over the past 100 years,” said Glynnis Collins, Executive Director of Prairie Rivers Network. “The public money that has funded most of the navigation system has resulted in untold public costs in the form of flooding, pollution and decline of fish and waterfowl populations. Corps funds should be directed to efforts like floodplain restoration and wetland protection that will lead to a cleaner, healthier river.”

Currently, the inland waterways system is publicly subsidized at approximately 90 percent, including 50 percent of the costs for new construction projects and rehabilitation projects, and 100 percent of all operation and maintenance expenses. This is the largest rate of subsidy among all freight shipping modes in the country. The industry provides about $80 million per year to the IWTF through a $0.20 per gallon fuel tax that has not increased since 1995. The remaining more than $720 million required to keep the system functioning is provided by taxpayers. The letter’s authors estimate the IMTS recommendations will further increase the public subsidy for inland waterway construction and rehabilitation by about $200 million annually, while adding major additional taxpayer obligations for operating and maintaining the inland waterway system.

“We fully endorse federal transportation initiatives that support a thriving agricultural economy and strong rural communities, but increasing the taxpayer burden for navigation projects – while Mississippi River navigation traffic continues a long-term downward trend – is simply not sound public policy,” said Mark Muller, Program Director for the Institute for Agriculture and Trade Policy.

The table below details the changes proposed by the inland waterways users to the long-standing cost share obligations that transfer current industry costs onto the U.S. Treasury.

Inland Waterways Trust Fund Cost Share Obligations Project Type Current Law IMTS Recommendations New Lock Construction 50% public/ 50% IWTF 50% public/50% IWTF Lock Rehabilitation >$100 million 50% public/ 50% IWTF 50% public/50% IWTF Lock Rehabilitation <$100 million 50% public/ 50% IWTF 100% public New Dam Construction 50% public/ 50% IWTF 100% public Dam Rehabilitation 50% public/ 50% IWTF 100% public Cost Overruns 50% public/ 50% IWTF 100% public

In their letter the groups urge that the IMTS report recommendations for increasing the public’s cost share obligations on the inland waterways system be rejected. Citing current fiscal conditions where the federal budget is in long-term deficit, the authors assert that seeking an increase in an already excessive subsidy is clearly unwarranted and irresponsible.