July 2015

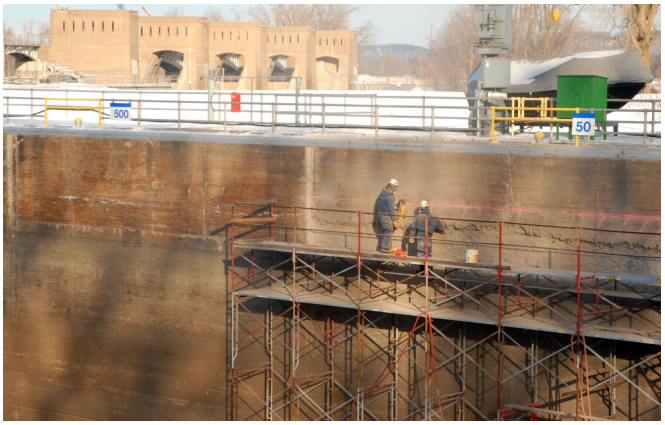
Waterways

A publication of the Upper Mississippi Waterway Association
PO Box 7006
St., Paul, MN 55107
e-mail: umwa@umwa.net
http://www.umwa.net

Inside this issue:

U.S. market share of soybean exports drops

As the well written *Waterways Journal* editorial of July 6, 2015, points out, it's hard to understand why the current administration doesn't support inland waterways. Quoting the Institute for Water Resources, WJ points out that waterway program spending yields a 16 to1 return in economic benefits and a 5 to 1 return in revenue to the U.S. Treasury.



(Above) Bloomberg news notes that the U.S. waterway system is "battered" and in "dire need"…"

"The bottom line, if anyone in the Administration is watching and listening, is that water resources have long been proven beneficial to the national, and they represent a program that should not be neglected for any reason," WJ says.

Water transportation's economic benefits are not lost on other competitor countries. As the *Transportation Topics* newspaper points out, Brazil continues to invest in its transportation infrastructure and as a result has become a top soybean exporter.

"U.S. market share of soybean exports dropped from 71% in 1992 to less than 50%, according to a February 2015 report by the U.S. Department of Agriculture," *Transportation Topics* says. "The U.S. share could drop further, according to the report. As the Brazilians keep improving the efficiency of their river freight system, while U.S. river locks struggle to keep cargo moving, buyers of U.S. commodities may tilt more to Brazil."

The paper also says that Brazil may be in a better position than the U.S. to benefit from the expansion of the Panama Canal.

Agri-News echoes that concern in a report on an Archer Daniels Midland sponsored agricultural legislative roundtable organized by the Illinois Farm Bureau.

Chris Boerm, grain group president for ADM told the gathering, "The river system separates Illinois and American agriculture from the rest of the world. It's this water system that feeds our export facilities. The fact that we have the Illinois, Mississippi and Ohio rivers, the numbers is normally $12 to $15 a ton to transport grain from this region to the export market in New Orleans. In Brazil, at times that number can be over $100 a ton. That's the advantage that we have."

But, Boerm says, Brazil continues to improve its infrastructure while the U.S. has been stagnant.

Bloomberg News points out that without the lock and dam system, "…such low-cost shipping would be nearly impossible."

But, *Bloomberg* says, "The locks are in dire need of repair and replacement. Mechanized gates get stuck, and chunks of concrete are falling off walls battered by barges. In October 2011 a 280 -foot section of wall by the Lockport Lock in Illinois crumbled into the water. In 2013 the Algiers Lock in Louisiana was shut down for four months to repair an underwater part that failed. The shutdown cost businesses $146

(Continued on page 4)

From the Executive Director...

What Policy Makers Need to Know About Funding U.S. Inland Waterways

In a nutshell, the most relevant issues to policy makers in considering funding for the inland waterway system includes three components: A sustainable and well-executed plan for a reliable system; a user-pay funding system to generate new revenues for O&M; and an asset management system to prioritize maintenance.

With those words, the Transportation Research Board summarized an 18-month consensus study to address reports of deteriorating infrastructure and declining federal investments. As a part of the National Academies and its Research Council, the mission of the TRB is to provide leadership in transportation innovation and progress through research within the public and private sectors and academia.

The TRB's Statement of Task did not require recommendations. Accordingly, the study committee offered a number of findings and conclusions based upon information it analyzed; its comments on funding are summarized and paraphrased below.

"....River tributaries, even the low-use ones, are critical to the health and efficiency of the main stem system..."

Concentration of barge transportation

Finding: Covering a vast geographic area, the inland waterway system has changed significantly since it was built to facilitate the growth of a nation. Today, barges carry a relatively small, yet steady stream of freight, mainly bulk commodities including coal, petroleum, fertilizer and grains. Annual trends of IWS shipments are stagnant-to-declining on some waterways and, overall, are static relative to the growing demand for rail and truck. Only about 7% of all domestic cargo measured in ton-miles is hauled by barge. Truck has carried the greatest share of freight, followed by rail and pipeline.

As a measure of this concentration, 76% of barge cargo (ton-miles) moves on just 22% of the 36,000 miles of the IWS. Of that amount, about 50% moves on six major corridors - the Upper Mississippi, Illinois, Ohio, Lower Mississippi and Columbia river systems and the Gulf Intracoastal Waterway, with some segments having minimal or no freight traffic.

Conclusion: With shrinking system resources and growing O&M demands, it would be prudent, says the committee, to make investments mainly to portions of the system important to moving freight (emphasis added).

It is interesting to note that the report splits the inland waterway network into 3 categories: Low use (Less than 1 billion ton-miles); Moderate use (1 to 3 billion ton-miles) and High use (more than 3 billion ton-miles). By color code, Low use segments are the majority. Moderate use segments are rare but in strategic locations. High use segments are lowest in number and, not surprisingly, located in the PNW, the Ohio River system, and segments in both the Upper and Lower Mississippi system.

To its credit, the study committee accepted the thorny issue of system funding, by recognizing that some low-use tributary join and contribute to commerce on downstream moderate- or high-use segments. Continuing, the committee acknowledged that while low-use segments provide a small contribution to the total system, collectively, their contribution is great. Without it, high-use segments would not be high-use. In addition, the committee recognizes that many shippers have organized their operations to take advantage of low-cost water transport and some would have few or no practical shipping alternatives if the low-use segments were to be closed to commercial navigation. It is reassuring to see that academia understands what the waterway industry has known all along, that our economy would be in shambles without low-use farm-to-market roadways developed over a century ago, the same applies to waterways.

In our opinion, the number of systems "important to moving freight" may be as diverse in tributary ton-miles and cargo volume as is the number of limbs on a tree; judicious pruning aids in fostering stronger growth, but removing too many limbs results in a dead tree. River tributaries, even the low-use ones, are critical to the health and efficiency of the main stem system.

Beneficiaries of IWS: Not clear

According to the study, commercial navigation is the primary beneficiary of the IWS. This is recognized by the USACE as the primary criterion used to determine investments in the system.

According to the most recent and wide-ranging attempt to catalogue and estimate benefits of the IWS, other beneficiaries may include (emphasis added) hydropower genera-

tion, recreation and water compelled rates, just to name the obvious. "May" is the operative word as some benefits are national, whereas some are only local in nature. For example, in the case of water compelled rates, a savings in transportation cost is classified by the USACE as a transfer to shippers and a net loss to rail lines, not a national economic benefit. On the other hand a possible national benefit for investing in waterways is the environmental advantage that barge has over other modes: lower fuel usage per ton-mile than rail or truck may result in lower air emissions. However, this is not always a given, say the authors, as water routes are often more serpentine than straight-line roads.

Finding

As the system has aged, maintenance has become a higher priority, now accounting for about three-fourths of the administration's inland navigation budget request.

Finding

Under federal legislation, fuel tax revenues can be used only for construction; they cannot be used for O&M. Furthermore, any increased capital funding from users would compete with available funding for O&M, since the federal government must (1) both match the user's voluntary contribution for capital improvements and (2) pay all the cost of O&M for that improvement as well.

Conclusion

In the face of constrained federal funds and with O&M becoming a greater draw on the federal treasury, a pressing policy issue is to determine who should pay to preserve the system. A study to determine if beneficiaries could help pay is rational and would improve economic efficiency. However, as discussed above, since the value to beneficiaries is, at best difficult to quantify, the highly visible commercial navigation industry is a first option, since commercial carriers impose significant marginal costs.

And while barge transport may provide an environmental benefit to the larger public that includes lower emissions, greater safety with less spills and congestion, whether the size of the benefit is in line with current federal spending is uncertain; further analysis of corridors would be needed to quantify the benefit.

Regardless of who pays for the system, a process is needed to prioritize spending, as capital project backlog is not a reliable indicator. The report indicates that only a modest amount of backlog is for navigation projects and possibly some are for major rehab project to maintain the system. However the backlog does not include amounts for O&M. A method for prioritizing projects based upon the greater service needs of the system would be more useful than attempting to obtain more funding for the existing backlog.

Finally, last month a Na-

(Continued on page 4)

"…Under federal legislation, fuel tax revenues can be used only for construction; they cannot be used for O&M..."

Other items of interest:

- Despite widespread efforts to halt the invasive species, the Minnesota DNR says Zebra Mussels have been found in several parts of Forest Lake. The lake will now be designated as "infested" which will mean boaters and others face new stricter enforcement

- National Park Service divers spent much of last month feeling their way along the bottom of the St. Croix River to discover and document engineering structures from the late 19th century that made a three-foot channel and dependable navigation possible on the St. Croix. At the time, the district engineer in charge at St. Paul said, "Navigation has been rendered permanent where formerly uncertain and in other places been made practicable where before it was impossible."

- You'd have a hard time convincing the Hasting, Minn., cleanup crew, but experts say that this year's healthy crop of Mayflies also means that the Mississippi River is healthy. It took several days to cleanup this year's crop, but it was nowhere near the record 1959 infestation that plagued the city.

- Some folks in Colorado are apparently coveting this year's abundant flows on the Mississippi River. Writing in the *Colorado Independent*, Gary Hausler says that state should import water from the Missouri and Mississippi rivers with a pipeline.

(Continued from page 3)

tional Academies' news release summarized that a system "more reliant on waterway user-fees would provide needed revenue for maintenance while being . . . more consistent with the federal posture towards other freight modes that are more dependent on user-fees". No conclusion was offered, however, stating that it would be prudent to consider such a fee as consideration for other beneficiaries to continue using commercial waterways.

That's an unfortunate oversight.

This report is available at www.umwa.net under Links.

Disclaimer: Thoughts and opinions expressed in this column are those of its author and not necessarily those of the Upper Mississippi Waterway Association or its members.

(Continued from page 1)

million in lost revenue and the expenses of rerouting cargo along other waterways. Some of the hydraulic motors powering the locks were installed in the 1930s. Many of the older locks with 600-foot-long chambers are too small to accommodate the towboat and its typical 15-barge load: The boats have to split up the barges and make two trips through the small locks."

One federal agency apparently recognizes the economic potential of the inland waterways, The Department of Transportation recently designated the container-on-vessel program as an official project, which could mean more such traffic moving up and down river.

St. Louis Mayor Francis Slay, says he and the other 67 members of the Mississippi River Cities & Town Initiative, are committed to pushing for more containerized shipping as a way of helping cities deal with growing traffic.

"Our cities suffer from considerable surface transportation congestion which is taking its toll on the infrastructure. That's why we must start using our inland waterway system better ," Slay says.

Upper Mississippi Waterway Assoc.
PO Box 7006
St. Paul, MN 55107

Address label here