

INLAND WATERWAYS USERS BOARD
29th ANNUAL REPORT

To The SECRETARY OF THE ARMY
And the UNITED STATES CONGRESS

December 2016

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Introduction

What began as 13 disparate colonial states more than 240 years ago is now the greatest nation on the face of the earth. America's preeminence can be traced to many factors, perhaps none greater than the inspired Constitution that bound together those 13 states and, ultimately, the 37 others that followed for their common well-being.

Another extremely important factor was and continues to be the rich bounty of rivers and other inland waterways with which our country has been blessed. Whether serving as early water highways for the commerce of the first states, or as routes for exploration of new frontier territories, or as commercial arteries essential to maximizing the production capacity of the largest contiguous acreage of arable land on the planet, or in support of the defense-related needs of a nation at war, or helping to sustain the most advanced economy in the history of mankind, our inland waterways have been a foundational pillar of the nation's continued successes and prosperity for two and one-half centuries.

Almost every aspect of our American way of life today is connected to and benefits from the Nation's inland waterways system. The pools created by the locks and dams that traverse the rivers provide a valuable source of fresh drinking water for nearby communities. Manufacturing facilities and electric power plants use the water provided by these pools for both process and cooling purposes. Farms and other agricultural operations use the pools' water for irrigation as well as for transportation of agricultural commodities. Our inland waterways provide recreational benefits for the enjoyment of tens of millions of campers, swimmers, skiers, boaters, sightseers, fishermen, hunters and tourists, while at the same time making significant economic contributions to local economies. Hydroelectric power is generated by equipment located at many dams, congestion is relieved on highways and rail lines, sewage treatment capacity is enhanced, air pollution is reduced, vital national defense and homeland security interests are served, and adjacent property values are increased because of the Nation's waterways system.

Few Americans stop to think about all of these non-navigation benefits of our inland waterways system. Most analysts, for example, are inclined to focus on the value of the system in commercial transportation terms. Our 28th Annual Report highlighted a few of the attempts that have been made in recent years to quantify the economic value of the commercial products that move on our river transportation system: grain to feed our families; steel to construct our buildings; asphalt, gravel and aggregates to build our roads; coal to generate our power; petroleum to heat our homes and fuel our cars; and chemicals to supply our manufacturing facilities and other needs. The Users Board continues to hold fast to its conviction that, regardless of the evaluation methodology used, America's inland waterways system is an enormously valuable national asset that connects our producers and jobs to the global economy, influences where businesses locate and how they operate, and is critically important to our nation's continued economic strength and prosperity.

Administration Budget Proposals

Continuing the pattern of the past few years, the Administration, in February 2016, recommended a minimalist Fiscal Year (FY) 2017 budget for the U.S. Army Corps of Engineers (Corps) Civil Works Program and, within the Civil Works Program, for investment in the nation's inland waterways system infrastructure. The Inland Waterways Users Board (Users Board) evaluated that FY 2017 budget proposal and in April 2016 submitted our detailed analysis and critique to the U.S. Congress, contained in this 29th Annual Report at Appendix C. In summary, and as explained in Appendix C, we found the President's Budget proposal to be seriously deficient in a number of respects and offered recommendations to Congress for how better to allocate federal appropriations to address the nation's inland navigation needs.

In drafting their respective Energy and Water Development (E&WD) appropriations bills for FY 2017, both the House of Representatives and the Senate generally followed the Users Board's recommendations. Both E&WD bills provided at least \$6 billion for the Civil Works Program, including at least \$375 million for Inland Waterways Trust Fund-financed construction projects and at least \$3.157 billion for the Corps' Operation and Maintenance Account, all amounts significantly higher than what was proposed by the Administration.

Users Board members deeply appreciate the increased funding support for FY 2017 that the House and Senate sought to provide to the nation's inland waterways navigation system. These appropriation amounts will need to be finalized for the remainder of FY 2017 before the Continuing Resolution (CR) expires on April 28, 2017. Fortunately, the CR-provided funds, together with the funds provided in the previous CR that expired December 9, 2016 should contain sufficient funding to continue Corps work on the inland waterways at least at FY 2016's robust level.

Priority Modernization Projects

Significant progress continued to be made during 2016 on the construction of the Users Board's four highest priority modernization projects. For FY 2016, Congress rejected the Administration's minimalist \$232 million budget proposal for Inland Waterways Trust Fund (IWTF) projects and instead appropriated "full use" of IWTF revenues and appropriated \$403.9 million for IWTF-funded projects enabling the Corps to allocate almost all of the appropriated amount to these four projects, along with a small sum to complete the Lockport project on the Illinois Waterway, as reflected in Table 1.

Table 1

**FY 2016 Funding Allocation
(Millions of Dollars)**

<u>Priority Project</u>	<u>FY 2016 Allocation</u>
Olmsted Locks & Dam	\$268.0
Monongahela River Locks & Dams 2, 3 & 4	\$58.9
Kentucky Lock	\$45.4
Chickamauga Lock	\$29.9
Lockport Pool Major Rehabilitation	\$1.7
Total	\$403.9

Allocation of the FY 2016 funding reduced the remaining cost to complete the four projects by almost 16% to \$2.16 billion, with three of the four projects -- Olmsted, Lower Mon, and Kentucky -- each having more than half of the necessary cost to construct the projects already allocated to them and two of those projects, Olmsted and Lower Mon, with far more than half already allocated. Table 2 summarizes the overall funding status of the Users Board's priority projects as reported at the December 13, 2016 Users Board Meeting No. 81 in Linthicum, MD.

Table 2

**Top Priority Project Funding Status*
(millions of dollars)**

	Total Cost	Allocations ≤ FY16	Remaining Cost > FY16
Olmsted	3,059	2,315	744
Lower Mon (with deferrals)	1,220	746	474
Kentucky	875	472	403
Chickamauga	755	216	539
Total	5,909	3,749	2,160

*Based on figures reported at the December 13, 2016, Users Board Meeting No. 81 in Linthicum, MD.

**Lower Mon costs exclude construction of the land chamber and Port Perry Bridge, which will be deferred.

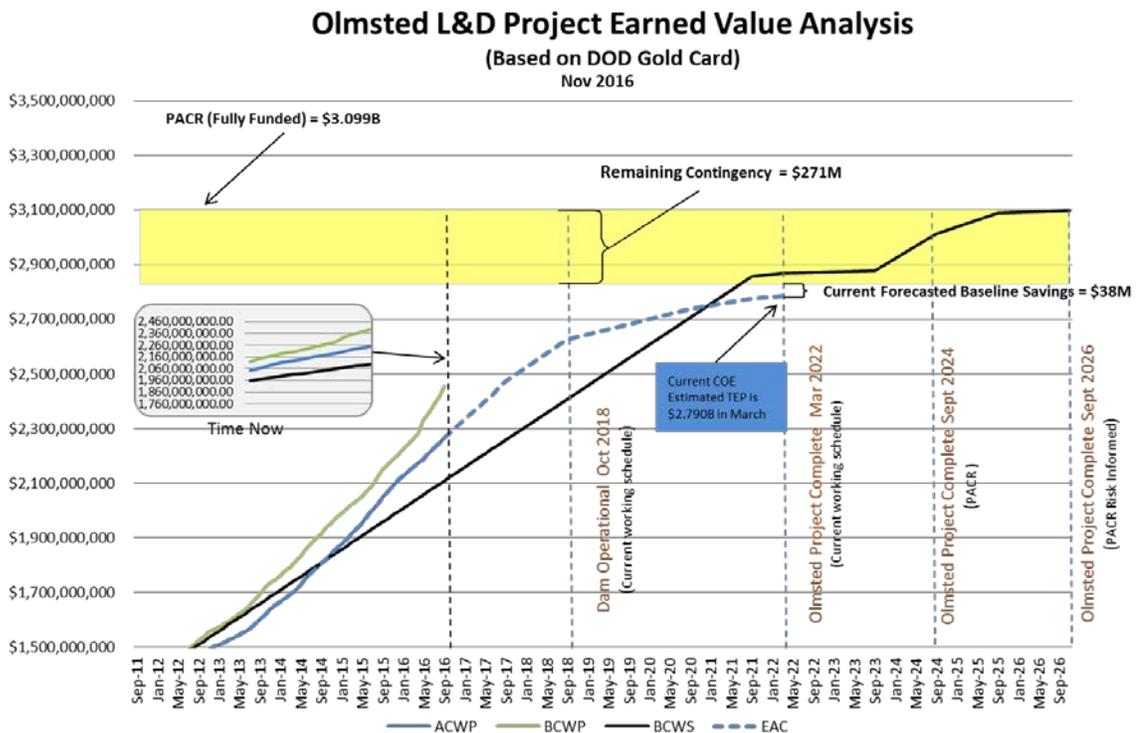
Further details on the construction progress of each of these top priority projects follows:

- Olmsted Locks and Dam, Ohio River, IL and KY (Olmsted). The combination of available efficient funding, manageable weather, and constant dedicated commitment on the part of the Corps’ project managers and their private sector construction partners continues to drive the Olmsted project to completion ahead of the schedule and below the cost forecast in the project’s 2012 Post-Authorization Change Report (PACR). Problems identified in the past and mentioned in Users Board reports from the pre-PACR period appear to be resolved, and the Users Board is very encouraged by the construction progress that is now being made.

During the 2016 calendar year, with an allocation of \$268 million for the year (\$88 million more than the President’s Budget proposal), the Corps project delivery team (PDT) completed every Olmsted construction activity scheduled for the year as well as three “stretch goals” for work originally scheduled to occur in 2017 but finished in 2016.

Figure 1 summarizes the current schedule and funding status of the Olmsted project.

Figure 1



Last year’s Users Board 28th Annual Report showed the Corps to be on-course to potentially deliver an Olmsted project that will be operational in 2018 and complete in 2022. As reported at the Users Board Meeting No. 81 in Linthicum, MD, the Corps remains on course to achieve or even surpass these accomplishments. As things currently

stand, with continued strong funding and cooperative weather, the Olmsted project manager explained at the meeting that, by the end of calendar year 2017, all of the construction necessary for the project to be operational in 2018 should be completed, leaving removal of Ohio River Locks and Dams 52 and 53 to occur beginning in 2019 and completion of the project to occur up to four years earlier than envisioned in the PACR at a total estimated project cost approximately \$300 million below the PACR forecast. It is the Users Board's understanding that such an outcome would, if nothing changes, envision appropriations of approximately \$250 million in FY 2017, \$175 million in FY 2018, \$75 million in FY 2019, \$15 million in FY 2020, and \$10 million in FY 2021.

- Locks and Dams 2, 3 and 4, Monongahela River, PA (Lower Mon). The \$58.9 million allocated in FY 2016 to the Lower Mon project was \$6.8 million more than the \$52 million requested in the FY 2016 President's Budget request. When the allocation was originally made earlier this year, the Corps planned on using the allocated funds to award the first option of a multi-option contract for completion of the river chamber. However, a modification was necessary to be made to another contract pursuant to a "request for equitable adjustment" that required some of the FY 2016 allocated funds to be used for the settlement, leaving the project about \$10 million short of the funds needed to award Option 1 before the end of FY 2016. Fortunately, because the Option 1 work is not on the critical path, this has not resulted in an immediate project schedule slip, yet.

Unfortunately, despite the fact that the recently-enacted Continuing Resolution for FY 2017 extends the funding for the Corps Civil Works Program for the first seven months of FY 2017 at an annualized level of just under \$6 billion, the Users Board was told that the Office of Management and Budget (OMB) is requiring the Corps to operate as though the Corps had only been appropriated the much lower President's Budget proposed amount of \$4.6 billion for the Civil Works Program. Further, because OMB is limiting CR-provided funds for an individual project to the lowest amount provided in the President's Budget, in the FY 2017 House E&WD appropriations bill or in the FY 2017 Senate E&WD appropriations bill, Lower Mon will receive no additional funding prior to the April 28, 2017 CR expiration date since the President's Budget for FY 2017 zero-funds the project. If this situation is not rectified and, instead is allowed to continue for the remainder of FY 2017, it will have serious adverse effects on the Lower Mon project's schedule and costs and will constitute a completely unnecessary and preventable waste of scarce federal resources.

The Corps' current plan is to award Options 1 and 2 of the River Chamber Completion Contract to continue construction of the river chamber. Options 1 and 2 are scheduled to be awarded in May and June 2017, respectively. Option 1 is \$47.6 million and Option 2 is \$37.9 million, which include contingencies, concrete and quantity modifications, but not engineering during construction (EDC) or supervision and administration (S&A) to

support the contracts. Option 1 expires on September 30, 2017 and Option 2 expires on September 30, 2018.

If Option 1 is not awarded by May 2017, there will be a day-for-day delay in the schedule and corresponding increase in cost up to award of Option 1 so long as the option is awarded no later than September 30, 2017. If Option 1 is not awarded by September 30, 2017, the contract would be closed upon completion of the base work and there would be an estimated four-year delay to allow the ongoing contracts to complete and to advertise and award a new contract. Failure to award Option 1 would result in a four-year project delay and an estimated additional \$164 million cost to the project. Additionally, because Lower Mon is projected to produce average annual benefits of \$220 million per year to the national economy, almost \$900 million in NED benefits will be lost over that four-year delay period. Figure 2 shows the impact on the schedule that would occur if the Lower Mon project were to receive no funds in FY 2017.

Figure 2

Lower Mon - Project Schedule

Major Feature Construction	Last Reported Completion (Oct 2016) No FY17 W.P.	Last Reported Completion (Oct 2016) with FY17 W.P.	Revised (with FY17 W.P.)
Charleroi River Wall	FY 2016		FY 2017 *
Charleroi M22-M27	FY 2019		
Charleroi Dam Stilling Basin	FY 2021		
Charleroi River Chamber Completion	FY 2027	FY 2023	
Dredging Pool 3	FY 2027	FY 2022	
Relocations	Variable		
Lock and Dam 3 Removal	FY 2027	FY 2023	

* Completion of punch list items extended into December 2016.

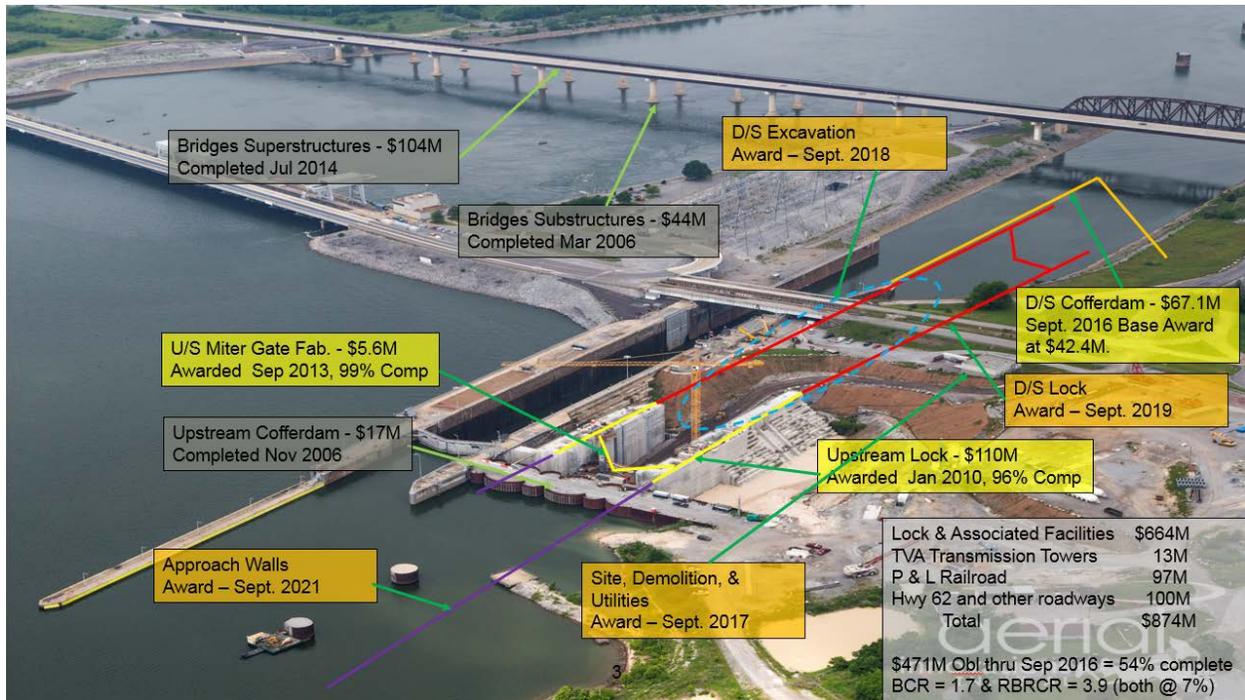
The Users Board recommends in the strongest terms possible that the funds necessary to award Options 1 and 2 as scheduled be identified and allocated to the Lower Mon project without delaying any other priority project of the Users Board.

- Kentucky Lock Addition, Tennessee River, KY (Kentucky). Despite the fact that no construction funds for the Kentucky Lock project were requested in the FY 2016 President’s Budget proposal, \$45.4 million was allocated by the Corps to the project as a result of Congress’ full-use appropriations of \$403.9 million in FY 2016 for IWTF-funded projects. This allowed existing project construction work to progress well and remain on schedule, with the critical path milestone entailing award of the \$67 million

downstream cofferdam construction contract successfully awarded on September 27, 2016, at a cost for the base contract, as expected, of approximately \$42.4 million. Figure 3 from the Users Board Meeting No. 81 on December 13, 2016 in Linthicum, MD provides an overview of the construction status of the Kentucky project, showing major project features and contract award dates.

Figure 3

Kentucky Lock Project Overview



Under the downstream cofferdam contract, pending availability of FY 2017 funding, the remaining \$25 million in contract options are expected to be exercised no later than May 30, 2017, which is when the options expire. If OMB’s current position that FY 2017 Continuing Resolution appropriated funds cannot be obligated during the term of the CR for projects not included in the President’s Budget proposal -- despite the fact that the project was funded in the Corps’ FY 2016 work plan -- is not reversed, there could likely be serious adverse implications for the Kentucky project’s cost and schedule.

If project funds are allocated to Kentucky in FY 2017 but after May 30, 2017, instead of the Corps unilaterally exercising the options at the contract price, the remaining options for the downstream cofferdam could be awarded but would have to be negotiated with the contractor, possibly at a higher cost. Worst case, if no funding were to be allocated to the project in FY 2017 and there were no expectations of funds in FY 2018, consideration would be given to “terminating for convenience” the downstream cofferdam contract,

which could lead to a two-year delay in project completion and more than \$200 million in additional costs and lost benefits.

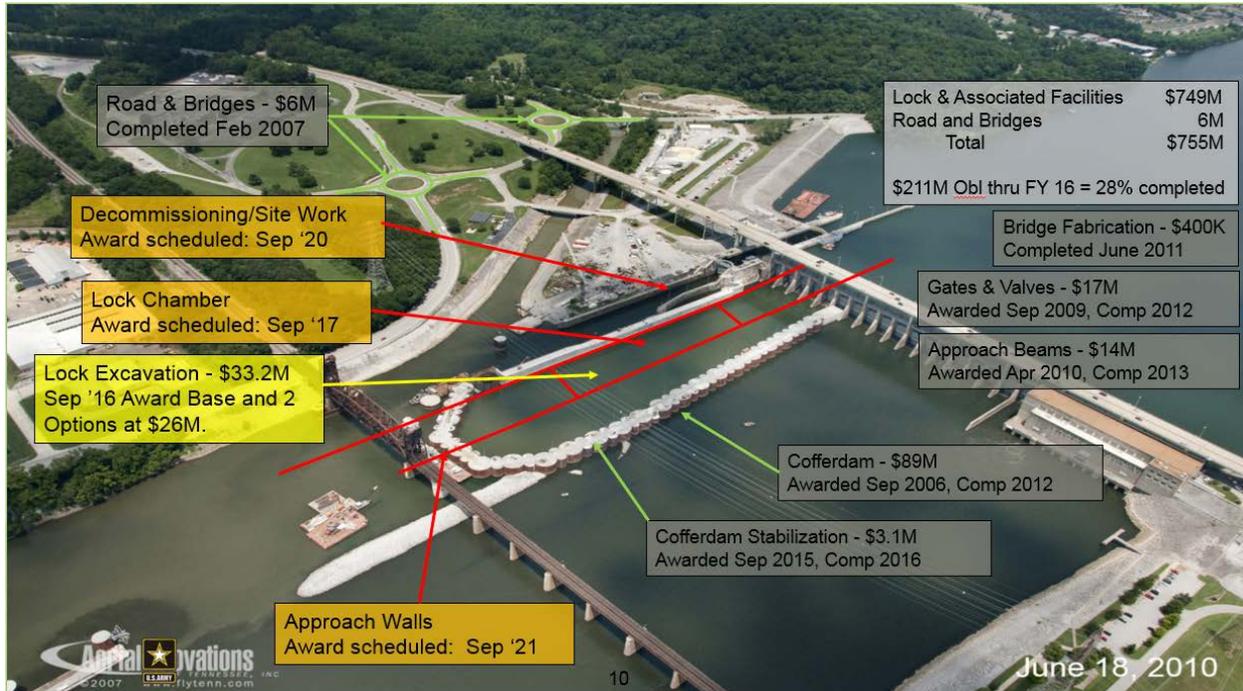
All of these adverse impacts are easily preventable if OMB relents and allows the Corps to receive and obligate prior to the April 28, 2017 expiration of the CR the \$31 million efficient funding amount that the Users Board understands is able to be productively spent on the project in FY 2017. A decision to proceed in this way is entirely warranted for the Kentucky project, which has a remaining-benefit/remaining-cost ratio (RBRCR) of 3.9 at a 7% discount rate and 8.9 at the current 2.875% discount rate.

- Chickamauga Lock, Tennessee River, TN (Chickamauga). The Users Board's previous annual report devoted significant attention to describing the high importance of this Tennessee Valley Authority-owned Corps-managed lock and dam project. In sum, if the existing 360-foot-by-60-foot Chickamauga Lock is forced to close because of serious existing concrete deterioration problems or for any other reason before the new 600-foot-by-110-foot lock is completed, river access to 318 miles of the navigable channels upstream of Chickamauga, including the city of Knoxville and numerous business and government entities, would be cut off.

For FY 2016, Congress rejected the President's Budget proposal to not fund additional construction work on Chickamauga and, instead, appropriated funding for IWTF-funded modernization at a level that led to the project being allocated \$29.9 million in FY 2016. Coming on the heels of the \$3 million allocated to the project in FY 2015, the FY 2016 funding has led to resumption of construction on the site after three years of stalled progress. Figure 4 from the Corps' briefing at the December 13, 2016 Users Board Meeting No. 81 in Linthicum, MD provides an overview of construction related activities at the Chickamauga project.

Figure 4

Chickamauga – Project Overview



As Figure 4 indicates, the \$33 million lock excavation contract was awarded in September 2016, and \$26 million was obligated for the base contract and two options. The contract and award of all options would complete the majority of the rock removal, approximately 98,000 cubic yards, which is equal to a 46-foot-high block of rock the size of a football field, according to the Project Manager. This will position the project for award in FY 2017 of the lock chamber construction contract if the necessary FY 2017 funds are received.

If the project does not receive funds in FY 2017 or funds are delayed past May 30, 2017, the remaining \$7 million in options, which expire on May 30, 2017, will either be negotiated with the contractor, or if negotiations are unsuccessful, will not be exercised and their scope of work will be incorporated into a future contract. Also, without additional funds in FY 2017, the lock chamber contract will not be awarded in September 2017, which will delay the project completion date.

Inland Waterways Trust Fund

As Table 3 illustrates, more than \$867 million in inland waterways diesel fuel taxes have been collected from the commercial users of the inland waterways system and deposited into the Inland Waterways Trust Fund (IWTF) in the past ten years. From year to year, the amount of diesel tax revenues going into the Trust Fund has varied some but, whether examined over the past five years or over the full ten-year period, the average annual amount collected per penny of tax has been slightly more than \$4 million per penny of tax.

Table 3 Inland Waterways Trust Fund Diesel Tax Revenues, 2007-2016, in \$Millions
(Nominal)*

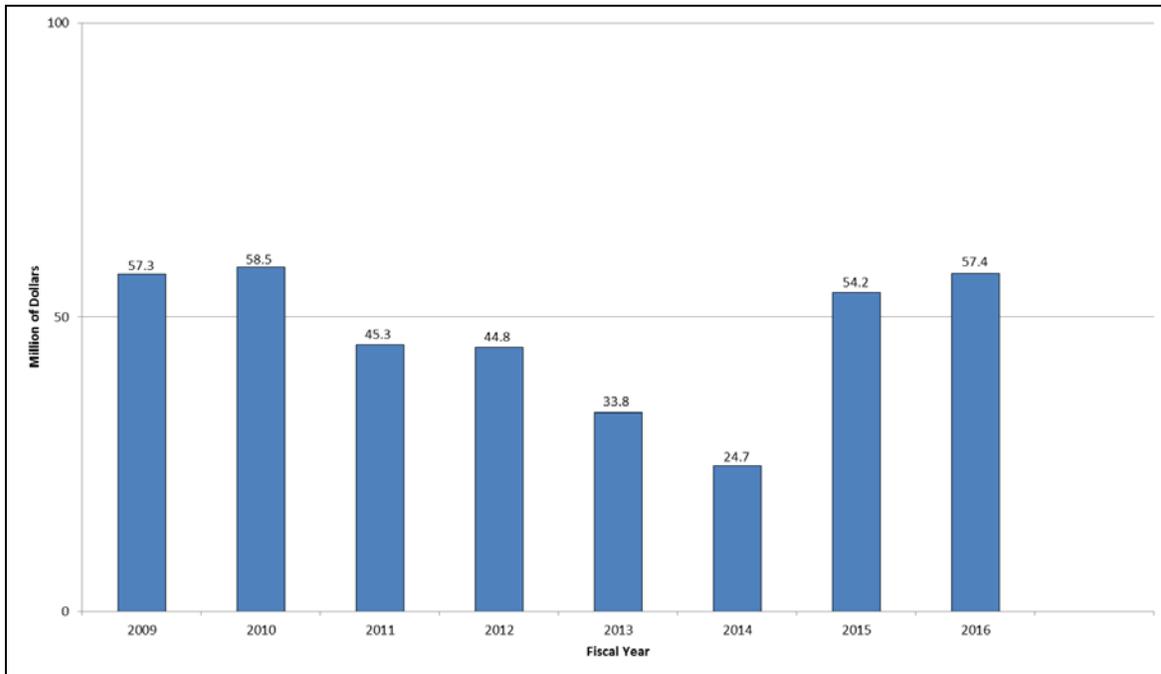
Fiscal Year	Tax Revenues	Per Penny of Tax
2007	\$91.10	4.56
2008	\$87.60	4.38
2009	\$75.95	3.80
2010	\$73.95	3.70
2011	\$83.95	4.20
2012	\$89.20	4.46
2013	\$75.11	3.76
2014	\$81.73	4.09
2015	\$97.89	4.00
2016	\$110.90	3.82
2012-16	\$454.83	4.03
2007-16	\$867.38	4.08

*Year-end balances are from the U.S. Treasury and include U.S. Treasury adjustments not reflected in the table. (See pg. 8 of Administration's Capital Investment Strategy report, dated March 2016)

The substantial increase in annual tax revenues for each of Fiscal Years 2015 and 2016 reflects the fact that FY 2015's total includes six months of the nine-cents-per-gallon inland waterways diesel fuel tax increase enacted in P.L. 113-295, and 2016 includes twelve months at the higher 29 cents per gallon tax rate.

The end-of-year balance in the Inland Waterways Trust Fund (IWTF) as of September 30, 2016, the final day of the 2016 federal fiscal year, rose to \$57.4 million, up \$33 million from where it had been two years earlier and the highest level in six years. See Figure 5.

Figure 5: Inland Waterways Trust Fund End-of-Year Balance



While the FY 2016 balance was markedly higher than FY 2014, it was only \$3.2 million higher than FY 2015, indicating that Congress, in appropriating inland waterways lock and dam modernization funds for the just-completed 2016 fiscal year, was very close to exactly achieving its post-Water Resources Reform and Development Act (WRRDA) of 2014 stated goal of “full use” for the year of IWTF diesel tax revenues.

In both our 28th Annual Report of December 2015 and our WRRDA 2014-required post-budget-submission report of April 2016, the Users Board recommended that the future year’s appropriations for inland waterways lock and dam construction be based on an assumed future year revenue amount of \$116 million, i.e., \$4 million per penny of diesel fuel tax. Since April 1, 2015, when the current 29 cents-per-gallon inland waterways diesel fuel tax went into effect, \$168.6 million in inland waterways diesel fund taxes was collected and deposited into the IWTF through the end of FY 2016 according to data made publicly available by the U.S. Treasury Department. This constituted an average annual revenue generation rate of \$3.88 million per penny of tax, or a little more \$112 million per year going into the Trust Fund over that 18-month period. While a \$116 million estimate for FY 2018 is supportable based on average annual receipts over both the past five years and the past ten years, the Users Board feels that a more conservative estimate of \$112 million is the amount that should be used in determining the “full use” investment level for Fiscal Year 2018.

Remaining-Benefit/Remaining-Cost Ratios

The Administration's budget development process, at least as it applies to the construction of lock and dam modernization projects, appears to Users Board members to be inherently illogical and almost guaranteed to unnecessarily prolong project construction schedules and waste scarce financial resources. Except for the year during which the project's construction is expected to be completed, in developing the list of projects to be included in the Administration's proposed budget for a federal fiscal year, the Administration's budget process does not adequately recognize and account for the funds already spent and the progress already achieved in constructing a project. Instead of having a project compete for construction account funding based on its remaining-benefit/remaining-cost ratio (RBRCR), which properly takes into account amounts already committed to the project's completion and more accurately measures the economic return that will result from new investment expenditures, the Administration requires the Corps to analyze a project based on its benefit/cost ratio (BCR), which even when updated from its original BCR, includes in the cost calculation sunk costs (i.e., costs already incurred in the past that will not be affected by any present or future investment) and essentially ignores the reality that a project like Kentucky Lock, for example, has had more than half of its expected total cost already appropriated and allocated to it. Adhering to the Administration approach requires a project like Kentucky Lock to be evaluated under a completely fictional and erroneous assumption that in essence requires it to compete for additional funds in the Administration budget as though the project's construction had never begun.

To make matters worse, in evaluating a project for possible budget inclusion in the Corps' construction account, the Administration requires that the project's economics be analyzed using a 7 percent discount rate that is too high and bears virtually no connection with today's economic conditions.¹ Using the 7 percent discount rate instead of a much lower rate reflective of current economic conditions causes the calculation of future national economic development (NED) benefits flowing from a project to be excessively reduced ("discounted") compared to use of a lower, more representative discount rate. The 7 percent discount rate also excessively compounds (i.e., increases) the project's construction costs up to the year when the project is projected to come on line. The combination of too-low benefits and too-high costs in turn lowers both the project's BCR and RBRCR, misleadingly causing policy-makers and others to underestimate the true economic value of further investment in the project.

Table 4 illustrates how much difference using RBRCRs instead of BCRs and a more realistic discount rate instead of 7 percent makes in demonstrating the true current economic value of providing additional construction funding to the Users Board's highest priority modernization projects. While three of the four projects show healthy BCRs at a 7 percent discount rate, from Lower Mon's 1.5 to Olmsted's 3.4, all four projects' BCRs increase significantly at the current discount rate of 2.875 percent as shown in Table 4. The same is true for the projects' RBRCRs with none of the four projects below an RBRCR of 4.4 and Olmsted at 45.3 at the lower discount rates.

¹ Because Corps lock and dam modernization projects produce national economic benefits for decades after they have been built, it is necessary to discount these future benefits to reflect the time value of money. The "discount rate" is the interest rate used to calculate the present value of those expected future yearly benefits.

Table 4: Benefit Cost Ratios and Remaining-Benefit/Remaining-Cost Ratios*

	BCR		RBRCR	
	7%	2.875%	7%	2.875%
1. Olmsted	3.40	6.0	25.5	45.3
2. Lower Mon	1.5	2.8	2.2	4.4
3. Kentucky	1.7	3.7	3.9	8.9
4. Chickamauga	0.8	1.8	2.7	14.2

*Based on figures reported at the December 13, 2016, Users Board Meeting No. 81 in Linthicum Heights, Maryland.

**The current discount rate is 2.875 percent, effective October 1, 2016.

The Users Board believes that RBRCRs and not BCRs are the better criteria for policy-makers to use in understanding the real value of and making investment decisions for lock and dam modernization projects that are already under construction.

Navigation and Ecosystem Sustainability Program

The Users Board has repeatedly recommended that necessary pre-construction engineering and design (PED) be resumed to prepare the Navigation and Ecosystem Sustainability Program (NESP) for a construction start. PED should include design for the 1,200-foot lock chambers at Lock and Dam 25 on the Mississippi River and LaGrange Lock and Dam on the Illinois Waterway, both of which have received previously appropriated funds for necessary PED work. This work is in alignment with the findings of the joint Corps/industry navigation team in the April 2010 Inland Marine Transportation System (IMTS) Capital Projects Business Model report. Design on comparable ecosystem restoration measures will also queue NESP up for implementation.

Congress authorized NESP in the Water Resources Development Act (WRDA) of 2007 as dual-purpose authority to modernize seven Depression-era lock and dam projects on the Upper Mississippi River and Illinois Waterway, while simultaneously establishing a comprehensive and integrated river ecosystem restoration program. To date, the Corps has spent more than \$134 million on combined feasibility studies (\$74.4 million, FY 1991-FY 2004) and PED (\$59.8 million, FY 2005-FY 2016) with little progress toward construction to show for it. Based on a 2013 study by HDR Decision Economics, the ten years of delayed construction since NESP's authorization has cost the U.S. almost \$600 million in delays to completion of lock construction.

The Statement of Managers accompanying the Energy and Water Development Act, 2016, Division D, Consolidated Appropriations Act, 2016, (Public Law 114-113), included the following language supporting NESP:

*“Upper Mississippi River-Illinois Waterway System.-Unfortunately, the bipartisan support for the Navigation and Ecosystem Sustainability Program (NESP), spanning almost a decade, has not resulted in NESP’s implementation. In fact, the program has been idle since fiscal year 2011, when it last received funding for ongoing PED activities. Recently, the Administration signaled its intent to take the unusual step of conducting a new economic analysis. **While an update of the benefits and costs of the program, similar to updates for other projects, may be warranted, a complete reanalysis is not.** The program was recommended in a Chief’s Report and authorized in statute; the next appropriate step is to complete PED. (emphasis added)”*

The will of Congress to proceed with NESP implementation has not been met. Instead, the clear intent of the former Administration was to continue delaying this program through unending study, in stark contrast to Congressional views.

The Users Board believes continual examination of traffic forecast scenarios, barge demand elasticity and other similar studies are unnecessary. The Users Board recommends immediate funding of at least \$10 million for PED activities. The Users Board further recommends that those PED activities be limited to preparing updated cost estimates and engineering design for lock modernization and other navigation improvements as well as ecosystem restoration as spelled out in NESP’s authorization.

The NESP continues to garner strong bipartisan support from the governors of the five states of the upper Mississippi River basin, who continue to request NESP implementation. Bipartisan members of the U.S. House of Representatives and U.S. Senate have, for multiple years, requested a start of NESP.

A broad nationwide coalition of manufacturers, contractors, organized labor unions, agriculture producers, shipping entities, energy providers and many others have joined the inland carriers for many years now in support of NESP. Policy directives from 2016 by the National Lieutenant Governors Association and the National Conference of State Legislatures also support implementing NESP immediately.

A September 2016 study on behalf of the U.S. Department of Agriculture underlies the need for lock modernization and two-way traffic provided by NESP.² Its findings show reduced economic activity related to grain barge transportation by nearly \$2 billion if Mississippi River Lock and Dam 25 (L&D 25) was unavailable for the 2024/25 marketing year. For harvest season alone, the disruption would cost \$933 million (or 40 percent decrease) if L&D 25 was unavailable from

² *Economic Impacts Analysis on Inland Waterways Disruptions on the Transport of Corn and Soybeans*, (Yu, T.E, B.C. English and R.J. Menard. Economic Impacts Analysis of Inland Waterway Navigability on the Transportation of Corn and Soybeans. Staff Report #AE16-08. Department of Agricultural and Resource Economics, University of Tennessee. September 2016). Every year, the U.S. Department of Agriculture publishes a 10-year forecast for various ag-related planning purposes (production, use, exports, etc.). The model the study authors chose used a 2010/2011 base year and compared it to the best then-available future forecast, which, in February 2015, was the 2024/2025 crop year.

September to November of the 2024/25 marketing year. A decline in economic surplus in the corn and soybean sector due to L&D 25 closure could cause a decrease of more than 7,000 jobs, \$1.3 billion in labor income and about \$2.4 billion of economic activity (total industry output) annually. A similar unavailability at LaGrange Lock and Dam would result in a reduction of almost 5,500 jobs, \$891 million in labor income and \$1.8 billion of economic activity (total industry output) annually.

NESP is a program of national importance, for its impact on the American agricultural sector alone. The Users Board reaffirms its support for proceeding with PED so as to bring NESP toward construction as soon as possible.

Operation and Maintenance

As required by the legislation that establishes it, the Users Board focuses its advisory role on matters regarding construction and rehabilitation priorities and spending levels for navigation projects on the inland waterways system. This necessarily entails an emphasis on capital activities funded under the Corps Construction Account and, to a lesser extent, capital project planning studies funded under the Corps Investigations Account.

Operation and Maintenance (O&M) of inland waterways navigation projects is also important, and, as it has in the past, the Users Board would like to offer a few of its thoughts on that topic as well in this Annual Report.

The recent history of O&M Account funding is discussed in our April post-budget report (see Appendix C). Especially noteworthy has been the trend of increasing annual appropriations for Corps Civil Works Program activities, particularly over the 2014-to-2016 timeframe involving three consecutive years of ever-increasing record-level O&M Account funding. The Users Board has been strongly supportive of this set of outcomes and is deeply appreciative of those in Congress and the Administration who worked together to produce such excellent results.

The Users Board continues to be encouraged by Congressional action during the Second Session of the 114th Congress. In drafting their respective versions of the Energy and Water Development Appropriations Act for FY 2017, both the House and Senate Appropriations Committees followed the Users Board's recommendation and provided a fourth consecutive year of record level O&M funding, with the House increasing FY 2016's \$3.137 billion amount by \$20 million and the Senate bill increasing the House bill amount by an additional \$17 million.

Unfortunately, because the 114th Congress was unable to complete final action on the FY 2017 E&WD Appropriations Act and opted instead to rely on continuing resolutions to fund the Corps and most other federal programs through April 28, 2017, full-year FY 2017 funding for the Corps O&M account is still unresolved. The Users Board urges the 115th Congress to finalize post-April 28, 2017 funding decisions as soon as possible and to continue increasing the Corps O&M account funding levels for FY 2017 as well as FY 2018 to the maximum extent practicable.

LaGrange Lock and Dam

As envisioned in and authorized by NESP, in both last year's 28th Annual Report and this year's 29th Annual Report, the Users Board has expressed its continuing support for immediate resumption of preconstruction engineering and design (PED) of a new 1200-foot lock at the current location of the existing smaller LaGrange Lock and Dam on the Illinois Waterway. The Users Board is aware, however, that the seriously deteriorated condition of the existing smaller lock necessitates major rehabilitation of the smaller lock in the near term prior to when construction on the larger lock will be ready to begin.

The Users Board is also aware that the Corps is in the early stages of planning for significant operation and maintenance work for five other locks on the Illinois Waterway in the Fiscal Year 2020 timeframe. This O&M work possibly could result in a 60-to-90 day closure of the Illinois Waterway according to early Corps estimates. The Users Board urges the Corps at both the division and Headquarters levels to work closely with the commercial users of the waterway to coordinate the necessary major rehabilitation work at LaGrange and the O&M work at the other locks to prevent, if possible, or otherwise minimize to the maximum extent practicable river closures on the Illinois Waterway.

Users Board Recommendations

- **The Administration and Corps of Engineers should take whatever administrative action is necessary to assure that prior to the April 28, 2017 expiration date of the current Continuing Resolution Act (CR) (P.L. 114-254), FY 2017 or other funds are allocated in amounts required to keep construction of any of the Users Board's priority modernization projects from experiencing additional delay or cost increase.** Whether by changing the current OMB policy that would limit CR funds to only the Olmsted project or by securing exceptions to that policy, funds must be provided, (1) to the Lower Mon project to allow contract Option 1 to be awarded in May 2017 and Option 2 to be awarded the following month, (2) to the Kentucky project to allow \$25 million in contract options to be awarded before their May 30, 2017 expiration, and (3) to the Chickamauga project to prevent the May 30, 2017 expiration of \$7 million in contract options.
- **At the earliest possible opportunity prior to April 28, 2017, Congress should appropriate and the Administration should allocate FY 2017 Corps of Engineers Construction Account funding in an amount sufficient to assure full and efficient funding for each of the Users Board's top priority modernization projects.** Based on information provided by the Corps at the most recent Users Board meeting, the Users Board understands those "full and efficient funding" levels to be \$250 million for Olmsted, \$84.7 million for Lower Mon, \$39 million for Kentucky, and \$37 million for Chickamauga. In making this recommendation, the Users Board recognizes that funding all four projects at these levels could slightly exceed the "full-use" amount based on estimated FY 2017 IWTF revenues. However, because the end-of-FY 2016 Trust Fund balance was more than \$57 million and the Users Board-recommended spending excess should be relatively small, the Users Board believes that expediting completion of these

projects leading to earlier realization of the national economic benefits that the projects will produce strongly justifies the Users Board's recommendation.

- **For FY 2018, and exclusive of any additional funding that might be forthcoming in one-time “Infrastructure Investment” legislation, the Administration and Congress should base IWTF project funding recommendations and funding decisions on assumed annual inland waterways fuel tax revenues deposited into the IWTF at a level of \$112 million during FY 2018.** The \$112 million figure is slightly below the actual 5-year and 10-year average experience, but is \$1 million higher than actual FY 2016 diesel fuel tax revenues deposited into the IWTF. As the nation's economy continues to improve in 2017, the Users Board is hopeful that 2017 and 2018 revenues into the Trust Fund will increase commensurately. In the event that actual revenues fall short of this FY 2018 projection, the balance remaining in the Trust Fund should be more than adequate to support the Users Board's recommended level of lock and dam construction funding for FY 2018.
- **For Fiscal Year 2018, the Administration should request and Congress should provide for the construction of inland waterways modernization projects the maximum amount of appropriated funding supportable by expected revenues into the Inland Waterways Trust Fund during FY 2018, estimated in at \$112 million; including \$175 million for Olmsted Locks and Dam, \$77 million for Lower Mon Locks and Dams 2, 3 & 4, \$41 million for Kentucky Lock, and \$71 million for Chickamauga Lock.** For the four ongoing construction projects (Olmsted, Lower Mon, Kentucky, and Chickamauga), the Corps' current efficient funding estimate is the level being recommended by the Users Board for each of those projects.
- **Funding should be allocated during Fiscal Years 2017 and 2018 from the Corps Investigations appropriation account for Preconstruction Engineering and Design (PED) of lock modernization projects on the Upper Mississippi River and Illinois Waterway system authorized in title VIII of the Water Resources Development Act of 2007 (Public Law 110-114).** Lock and dam projects are long term, long lead projects. To ensure that projects are “shovel ready” when funds become available, including if funds become available earlier than planned due to unforeseen events, prudence calls for performing PED work on priority projects not yet under construction. As envisioned in the Capital Development Plan, the first two NESF lock modernization projects to receive additional PED funding should be Lock and Dam 25 on the Mississippi River and LaGrange Lock and Dam on the Illinois Waterway, both of which have received previously appropriated funds for necessary PED work. Moving forward in this fashion will position these projects to proceed to construction as soon as construction funding becomes available for them.
- **In making funding investment and allocation decisions for lock and dam modernization projects already under construction, policy-makers generally should focus project-specific economic analysis primarily on a project's Remaining-Benefit/Remaining-Cost Ratio (RBRCR) rather than on its Benefit Cost Ratio (BCR).** As discussed earlier in this report, a project's RBRCR typically provides a far

better measure of the likely economic return to be expected from further construction expenditures on the project than does the project's BCR.

- **For Fiscal Years 2017 and 2018, the Administration and Congress should continue to increase the robust levels of funding provided during Fiscal Years 2014, 2015, and 2016 for the Operation and Maintenance activities of the Corps affecting inland and coastal navigation throughout the nation.** Additional funding will help address the Corps deferred O&M and will be completely consistent with the broadly-supported objective of improving our national standard of living, growing the nation's economy, and increasing exports.
- **Congress must find a way to return to "regular order" and pass individual annual appropriations acts in a timely manner instead of continuing to resort to last-minute continuing resolutions, often of short-term duration, to fund federal agencies and their programs.** Relying on last-minute partial-year appropriations funding for lock and dam construction and operation and maintenance creates unnecessary, wasteful, and entirely preventable inefficiencies that delay project completion and increase project costs, all of which could be minimized or eliminated by an improved Congressional appropriation process.
- **The Administration should act expeditiously to make Inland Waterways Users Board appointments in a timeframe adequate to prevent a gap in Users Board membership at the May 2017 expiration of current Users Board members' terms of office.** Section 302 of Public Law 99-662 establishes the Users Board composed of eleven members selected by the Secretary of the Army. The appointments of the Users Board's current members are scheduled to expire May 27, 2017. Significant preliminary administrative work has been performed, including the solicitation, review, and recommendation of nominations, in order to facilitate appointments to the Users Board for terms that begin on May 27, 2017. These appointments should be finalized at the earliest possible opportunity and in a manner that assures full Users Board membership during 2017.

Acknowledgements

The Inland Waterways Users Board wishes to express its sincere appreciation to Major General Ed Jackson, the U.S. Army Corps of Engineers Deputy Commanding General for Civil and Emergency Operations and Executive Director to the Board for the outstanding leadership and support he has provided throughout his tenure. The Board thanks Mr. Mark R. Pointon, the Designated Federal Officer for the Board, and Mr. Kenneth E. Lichtman from the Corps Institute for Water Resources for the support they provide. The Corps' division and district staffs and the staffs at Corps Headquarters and at the Institute for Water Resources have provided thorough and timely information throughout the year, which the Board greatly appreciates. The Board would also like to recognize the professionalism and efforts of Dr. Mark Sudol and the team from the Institute for Water Resources for their work improving the Lock Performance Monitoring System (LPMS).

Appendix A

History

The Inland Waterways Fuel Tax was established to support inland waterways infrastructure development and rehabilitation. Commercial users are required to pay this tax on fuel consumed in inland waterways transportation. Revenues from the tax are deposited in the Inland Waterways Trust Fund and generally fund 50% of the cost of inland navigation projects each year as authorized. From the beginning of 1995 through March 31, 2015, the amount of tax paid by commercial users was \$.20 per gallon of fuel, which in recent years generated approximately \$80 to \$85 million in contributions annually to the Inland Waterways Trust Fund. With the President's December 2014 signing of Public Law 113-295, the diesel fuel tax rate increased to \$.29 per gallon effective April 1, 2015, generating additional revenues for the Inland Waterways Trust Fund.

Reflecting the concept of "Users Pay, Users Say", the Water Resources Development Act of 1986 (Public Law 99-662) (WRDA 86) established the Inland Waterways Users Board (the Users Board), a Federal advisory committee, to give commercial users a strong voice in the investment decision-making they are supporting with their cost-sharing tax payments. The principal responsibility of the Users Board is to recommend to the Congress, the Secretary of the Army and the U.S. Army Corps of Engineers the prioritization of new and replacement inland navigation construction and major rehabilitation projects. Specifically, Section 302 of WRDA 86 tasked the Users Board as follows:

"The Users Board shall meet at least semi-annually to develop and make recommendations to the Secretary regarding construction and rehabilitation priorities and spending levels on the commercial navigational features and components of the inland waterways and inland harbors of the United States for the following fiscal years. Any advice or recommendation made by the Users Board to the Secretary shall reflect the independent judgment of the Users Board. The Users Board shall, by December 31, 1987, and annually thereafter file such recommendations with the Secretary and with the Congress."

On June 10, 2014, the President signed the Water Resources Reform and Development Act of 2014 (Public Law 113-121) which, among other things, modified Section 302 of WRDA 1986 to amend and increase the responsibilities of the Users Board. Section 2002 of WRRDA 2014 replaced subsection (b) of Section 302 of WRDA 1986 as follows:

"(1) IN GENERAL. – The Users Board shall meet not less frequently than semiannually to develop and make recommendations to the Secretary and Congress regarding the inland waterways and inland harbors of the United States.
(2) ADVICE AND RECOMMENDATIONS. – For commercial navigation features and components of the inland waterways and inland harbors of the United States, the Users Board shall provide –

(A) prior to the development of the budget proposal of the President for a given fiscal year, advice and recommendations to the Secretary regarding construction and rehabilitation priorities and spending levels;

(B) advice and recommendations to Congress regarding any feasibility report for a project on the inland waterway system that has been submitted to Congress pursuant to section 7001 of the Water Resources Reform and Development Act of 2014;

(C) advice and recommendations to Congress regarding an increase in the authorized cost of those features and components;

(D) not later than 60 days after the date of the submission of the budget proposal of the President to Congress, advice and recommendations to Congress regarding construction and rehabilitation priorities and spending levels; and

(E)” advice and recommendations on the development of a long-term capital investment program in accordance with subsection (d).

(3) **PROJECT DEVELOPMENT TEAMS.** – The chairperson of the Users Board shall appoint a representative of the Users Board to serve as an advisor to the project development team for a qualifying project or the study or design of a commercial navigation feature or component of the inland waterways and inland harbors of the United States.

(4) **INDEPENDENT JUDGMENT.** – Any advice or recommendation made by the Users Board to the Secretary shall reflect the independent judgment of the Users Board...

...(d) **CAPITAL INVESTMENT PROGRAM.** –

(1) **IN GENERAL.** – Not later than 1 year after the date of enactment of this subsection, the Secretary, in coordination with the Users Board, shall develop and submit to Congress a report describing a 20-year program for making capital investments on the inland and intracoastal waterways based on the application of objective, national project selection prioritization criteria.

(2) **CONSIDERATION.** – In developing the program under paragraph (1), the Secretary shall take into consideration the 20-year capital investment strategy contained in the Inland Marine Transportation System (IMTS) Capital Projects Business Model, Final Report published on April 13, 2010, as approved by the Users Board.

(3) **CRITERIA.** – In developing the plan and prioritization criteria under paragraph (1), the Secretary shall ensure, to the maximum extent practicable, that investments made under the 20-year program described in paragraph (1)—

(A) are made in all geographical areas of the inland waterways system;

and

(B) ensure efficient funding of inland waterways projects.

(4) **STRATEGIC REVIEW AND UPDATE.** – Not later than 5 years after the date of enactment of this subsection, and not less frequent than once every 5 years thereafter, the Secretary, in coordination with the Users Board, shall –

(A) submit to Congress and make publicly available a strategic review of the 20-year program in effect under this subsection, which shall identify and explain any changes to the project-specific recommendations contained in the previous 20-year program (including any changes to the prioritization criteria used to develop the updated recommendations); and

(B) make revisions to the program, as appropriate.

(e) PROJECT MANAGEMENT PLANS. – The chairperson of the Users Board and the project development team member appointed by the chairperson under subsection (b)(3) may sign the project management plan for the qualifying project or the study or design of a commercial navigation feature or component of the inland waterways and inland harbors of the United States.”

WRRDA’s Section 2002 further clarifies the role of the Users Board in a new subsection (f) of Section 302, as follows:

“(f) ADMINISTRATION. –

(1) IN GENERAL. – The Users Board shall be subject to the Federal Advisory Committee Act (5 U.S.C. App.), other than section 14, and, with the consent of the appropriate agency head, the Users Board may use the facilities and services of any Federal agency.

(2) MEMBERS NOT CONSIDERED SPECIAL GOVERNMENT EMPLOYEES. – For the purposes of complying with the Federal Advisory Committee Act (5 U.S.C. App.), the members of the Users Board shall not be considered special Government employees (as defined in section 202 of title 18, United States Code).

(3) TRAVEL EXPENSES. – Non-Federal members of the Users Board while engaged in the performance of their duties away from their homes or regular places of business, may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5, United States Code.”

On August 12, 2015, in Nashville, TN, Major General (MG) John Peabody, Deputy Commanding General for Civil and Emergency Operations, officiated at the swearing-in of current Inland Waterways Users Board members for a term of office lasting two years.

Appendix B

List of the Fuel Taxed Inland and Intracoastal Waterways and System Map

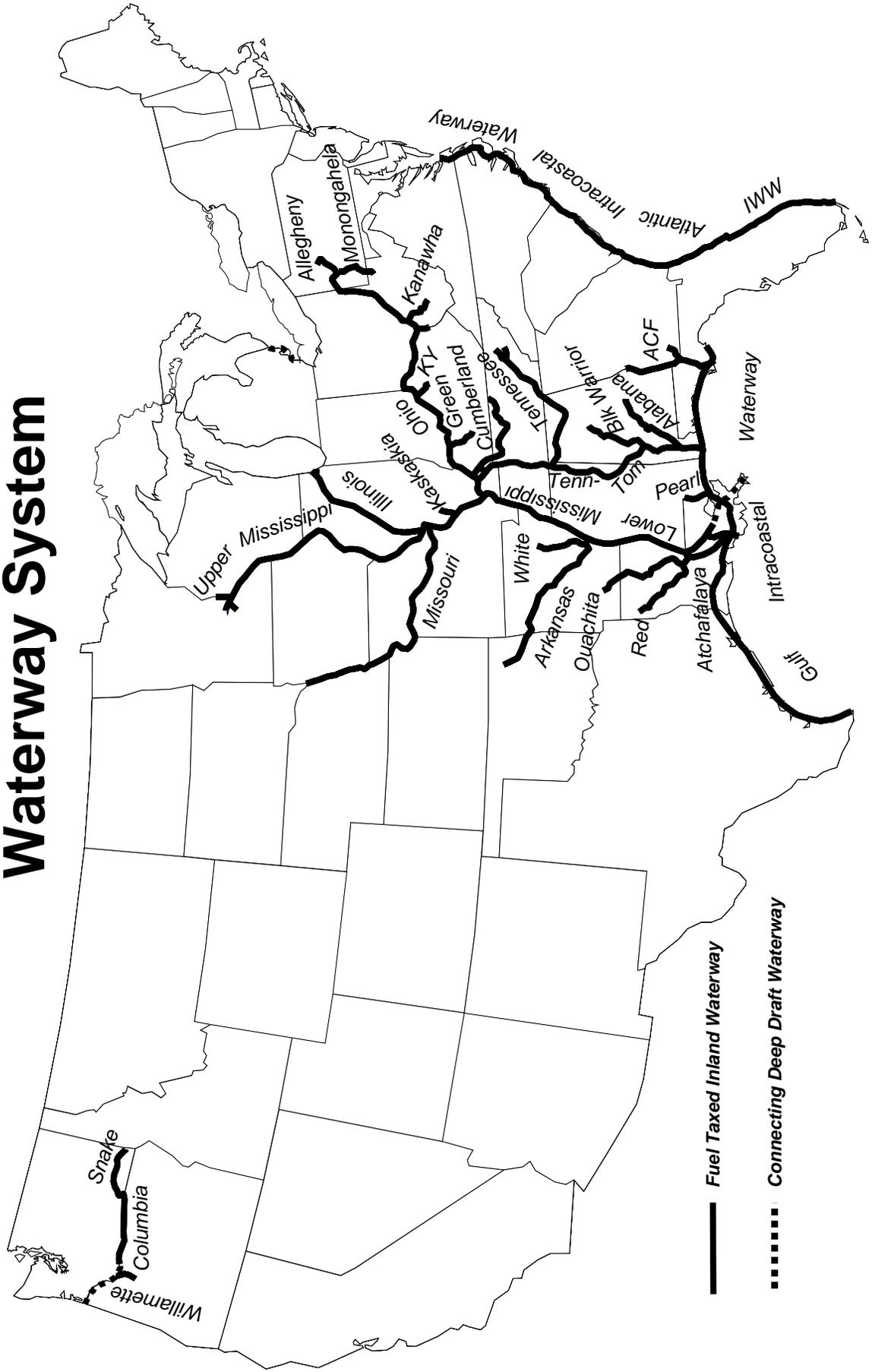
Statutory Definitions of Inland and Intracoastal Fuel Taxed Waterways of the United States

SOURCES: Public Law 95-502, October 21, 1978, and Public Law 99-662, November 17, 1986.

1. Alabama-Coosa Rivers: From junction with the Tombigbee River at river mile (hereinafter referred to as RM) 0 to junction with Coosa River at RM 314.
2. Allegheny River: From confluence with the Monongahela River to form the Ohio River at RM 0 to the head of the existing project at East Brady, Pennsylvania, RM 72.
3. Apalachicola-Chattahoochee and Flint Rivers (ACF): Apalachicola River from mouth at Apalachicola Bay (intersection with the Gulf Intracoastal Waterway) RM 0 to junction with Chattahoochee and Flint Rivers at RM 107.8. Chattahoochee River from junction with Apalachicola and Flint Rivers at RM 0 to Columbus, Georgia at RM 155 and Flint River, from junction with Apalachicola and Chattahoochee Rivers at RM 0 to Bainbridge, Georgia, at RM 28.
4. Arkansas River (McClellan-Kerr Arkansas River Navigation System): From junction with Mississippi River at RM 0 to Port of Catoosa, Oklahoma, at RM 448.2.
5. Atchafalaya River: From RM 0 at its intersection with the Gulf Intracoastal Waterway at Morgan City, Louisiana, upstream to junction with Red River at RM 116.8.
6. Atlantic Intracoastal Waterway: Two inland waterway routes approximately paralleling the Atlantic coast between Norfolk, Virginia, and Miami, Florida, for 1,192 miles via both the Albemarle and Chesapeake Canal and Great Dismal Swamp Canal routes.
7. Black Warrior-Tombigbee-Mobile Rivers: Black Warrior River System from RM 2.9, Mobile River (at Chickasaw Creek) to confluence with Tombigbee River at RM 45. Tombigbee River (to Demopolis at RM 215.4) to port of Birmingham, RM's 374-411 and upstream to head of navigation on Mulberry Fork (RM 429.6), Locust Fork (RM 407.8), and Sipsey Fork (RM 430.4).
8. Columbia River (Columbia-Snake Rivers Inland Waterways): From the Dalles at RM 191.5 to Pasco, Washington (McNary Pool), at RM 330, Snake River from RM 0 at the mouth to RM 231.5 at Johnson Bar Landing, Idaho.
9. Cumberland River: Junction with Ohio River at RM 0 to head of navigation, upstream to Carthage, Tennessee, at RM 313.5.
10. Green and Barren Rivers: Green River from junction with the Ohio River at RM 0 to head of navigation at RM 149.1.

11. Gulf Intracoastal Waterway: From St. Mark's River, Florida, to Brownsville, Texas, 1,134.5 miles.
12. Illinois Waterway (Calumet-Sag Channel): From the junction of the Illinois River with the Mississippi River RM 0 to Chicago Harbor at Lake Michigan, approximately RM 350.
13. Kanawha River: From junction with Ohio River at RM 0 to RM 90.6 at Deepwater, West Virginia.
14. Kaskaskia River: From junction with Mississippi River at RM 0 to RM 36.2 at Fayetteville, Illinois.
15. Kentucky River: From junction with Ohio River at RM 0 to confluence of Middle and North Forks at RM 258.6.
16. Lower Mississippi River: From Baton Rouge, Louisiana, RM 233.9 to Cairo, Illinois, RM 953.8.
17. Upper Mississippi River: From Cairo, Illinois, RM 953.8 to Minneapolis, Minnesota, RM 1,811.4.
18. Missouri River: From junction with Mississippi River at RM 0 to Sioux City, Iowa, at RM 734.8.
19. Monongahela River: From junction with Allegheny River to form the Ohio River at RM 0 to junction of the Tygart and West Fork Rivers, Fairmont, West Virginia, at RM 128.7.
20. Ohio River: From junction with the Mississippi River at RM 0 to junction of the Allegheny and Monongahela Rivers at Pittsburgh, Pennsylvania, at RM 981.
21. Ouachita-Black Rivers: From the mouth of the Black River at its junction with the Red River at RM 0 to RM 351 at Camden, Arkansas.
22. Pearl River: From junction of West Pearl River with the Rigolets at RM 0 to Bogalusa, Louisiana, RM 58.
23. Red River: From RM 0 to the mouth of Cypress Bayou at RM 236.
24. Tennessee River: From junction with Ohio River at RM 0 to confluence with Holstein and French Rivers at RM 652.
25. White River: From RM 9.8 to RM 255 at Newport, Arkansas.
26. Willamette River: From RM 21 upstream of Portland, Oregon, to Harrisburg, Oregon, at RM 194.
27. Tennessee-Tombigbee Waterway: From its confluence with the Tennessee River to the Warrior River at Demopolis, Alabama.

The Fuel-Taxed Inland and Intracoastal Waterway System



APPENDIX C

Water Resources Reform and Development Act (WRRDA) Post-Budget
Submission for FY 2017



INLAND WATERWAYS USERS BOARD

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

April 8, 2016

The Honorable Paul D. Ryan
Speaker
U.S. House of Representatives
H-232, Capitol Building
Washington, DC 20515

The Honorable Nancy Pelosi
Minority Leader
U.S. House of Representatives
H-204, Capitol Building
Washington, DC 20515

The Honorable Mitch McConnell
Majority Leader
U.S. Senate
S-230 Capitol Building
Washington, DC 20510

The Honorable Harry Reid
Minority Leader
U.S. Senate
S-221, Capitol Building
Washington, DC 20510

Dear Speaker Ryan, Leader McConnell, Leader Pelosi, and Leader Reid:

This letter is submitted pursuant to Section 2002(d) of the Water Resources Reform and Development Act of 2014 (Public Law 113-121, June 10, 2014, hereinafter referred to as “WRRDA”). Section 2002(d) requires the Inland Waterways Users Board (“Board” or “Users Board”), among other things, to “provide...not later than 60 days after the date of the submission of the budget proposal of the President to the Congress, advice and recommendations to Congress regarding construction and rehabilitation priorities and spending levels” for commercial navigation features and components of the inland waterways and inland harbors of the United States.

The Inland Waterways Users Board is a federal advisory committee established almost 30 years ago by the Water Resources Development Act of 1986 (Public Law 99-662). Comprised of a balanced, regionally-varied mix of the primary users and shippers utilizing the inland and intracoastal waterways for commercial purposes, the Users Board was created to give commercial users a strong voice in the investment decision-making the users are supporting with their continuing diesel-fuel-based cost-sharing tax payments.

Overview

Modern lock and dam infrastructure is essential to inland waterways transportation, which is a key component of the nation’s intermodal transportation network and 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. Despite all of its advantages, our inland waterways infrastructure is suffering and in need of immediate modernization. More than 60 percent of the 241 lock chambers in our inland waterways system are over 50 years old and have exceeded their economic design lives. Critical lock failures and significant unscheduled down time have occurred at locks across the system. This situation threatens to erode the very fabric of our inland waterways system.

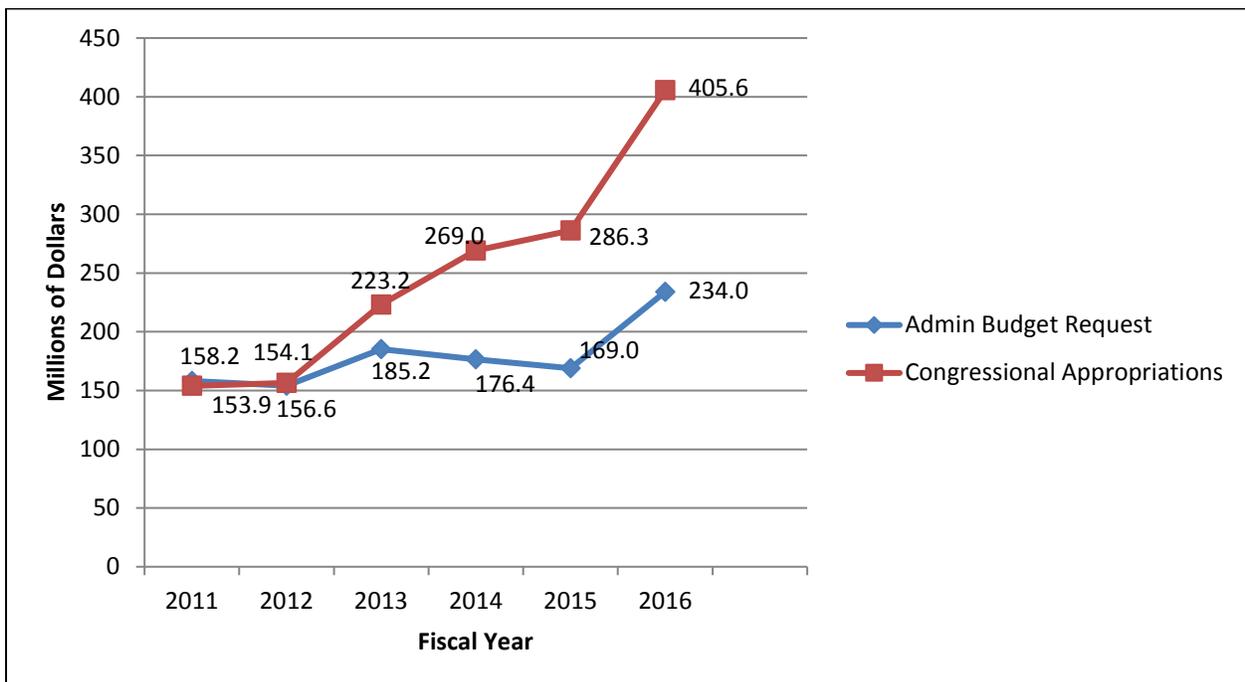
A Federal Advisory Committee Established by the water Resources Development Act of 1986

Addressing this challenge in a responsible way represents a wise and prudent investment in our nation’s economic well-being, both now and for the future. Corps of Engineers analysts, for example, have just completed a review of 2014 data (the most recent data analyzed by the Corps and made publicly available) and concluded that “in 2014 internal navigation traffic moved 604 million tons of commodities valued at \$232 billion. Shippers (and ultimately consumers) save \$20.37 per ton...compared to other modes, or \$12.3 billion annually...” Given that only about \$1 billion in Fiscal Year (FY) 2014 Corps funding was allocated to inland navigation, this represents a net national economic benefit for the year of more than \$11 billion and an 11-to-1 return on investment for that \$1 billion allocation.

Fiscal Year 2016

The Congress demonstrated a much greater understanding of and commitment to the need to improve the nation’s inland waterways system than did the Administration for Fiscal Year (FY) 2016. While the FY 2016 President’s Budget request proposed to fund the construction of lock and dam projects cost-shared by the Inland Waterways Trust Fund (IWTF) at a higher level than the Administration had proposed for FY 2015, that FY 2016 proposal was far below what Congress had appropriated for FY 2015 and also far below the \$405 million amount Congress provided in the 2016 Consolidated Appropriations Act (P.L. 114-113). See Figure 1.

Figure 1: Annual Funding for IWTF Modernization Projects



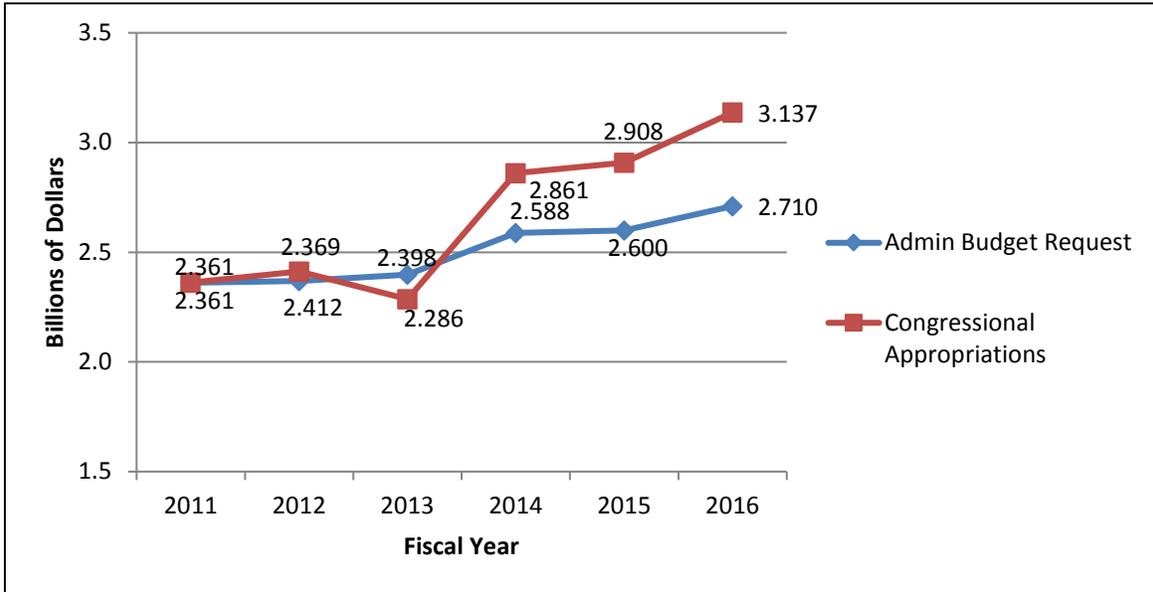
The \$172 million in additional FY 2016 construction funding that Congress provided for IWTF projects resulted in all four of the Users Board’s top priority modernization projects receiving allocations at or very close to capability levels in the Corps’ Fiscal Year 2016 Work Plan that was made public on February 9th of this year. These project-specific allocations, displayed in Table 1, are substantially the same as the Board recommended in our 28th Annual Report from December 2015.

Table 1: FY 2016 Allocations for IWTF Projects (millions of dollars)

	FY 2016 President’s Budget (millions of dollars)	Corps of Engineers Capability (millions of dollars)	FY 2016 Work Plan (millions of dollars)
Olmsted Locks & Dam	\$180.0	\$268.0	\$268.0
Lower Monongahela 2-3-4	\$52.0	\$60.0	\$58.9
Kentucky Lock Addition	-	\$48.0	\$45.4
Chickamauga Lock	-	\$29.9	\$29.9
Lockport Lock and Dam	-	\$1.4	\$1.4

Corps of Engineers Operation and Maintenance (O&M) account funding for FY 2016 followed a pattern similar to that experienced for lock and dam Construction account spending. The President’s Budget request of \$2.71 billion (O&M) for FY 2016 was slightly higher than the \$2.6 billion requested by the budget for FY 2015, but it was significantly below the \$2.908 billion for FY 2015 and the \$3.137 billion for FY 2016 that Congress appropriated for those years. Figure 2 illustrates the relationship between Administration-requested Operation and Maintenance account funding levels and amounts actually appropriated by Congress for each of the past six years.

Figure 2: Operation & Maintenance Account
Civil Works Program, Corps of Engineers



Particularly in each of the past three fiscal years, Congress wisely has increased Corps O&M funding by more than ten percent above the level proposed by the Administration.

President’s Budget Proposal for FY 2017

Table 2 displays summary information about the FY 2017 President’s Budget relative to the President’s Budget request for FY 2016 and compared to what Congress appropriated for FY 2016 in the Consolidated Appropriations Act, 2016 (P.L. 114-113)

Table 2: Corps of Engineers Funding

	FY 2016 President’s Budget (millions of dollars)	FY 2016 P.L. 114-113 (millions of dollars)	FY 2017 President’s Budget (millions of dollars)	FY 2017 Budget vs FY 2016 Appropriations
Construction	\$1,172	\$1,862	\$1,090	↓ 41.5%
• IWTF Projects	\$234	\$405	\$225	↓ 44.4%
Operations and Maintenance	\$2,705	\$3,137	\$2,705	↓ 13.8%
• Inland Navigation	\$691	\$759	\$631	↓ 16.9%
Other Accounts	\$850	\$990	\$825	↓ 16.7%
Total Appropriation	\$4,732	\$5,989	\$4,620	↓ 22.9%

In the Construction account, the FY 2017 President's Budget proposes to fund lock and dam modernization nationwide at a \$225 million level that is approximately \$165 million below the \$390 million level that can be supported by revenues expected to be received by the Inland Waterways Trust Fund during FY 2017. This budget request is approximately 45% below what was appropriated for the current fiscal year and is about 42% below what Congress envisioned just a little more than one year ago when, as the industry urged, the inland waterway diesel fuel tax that commercial users pay and goes into the IWTF was increased from 20 cents per gallon to 29 cents per gallon to support increased investment in the nation's inland waterways infrastructure. Further, the President's Budget proposal would fund only a single lock and dam construction project (Olmsted Locks and Dam) and would provide no FY 2017 funds for three other ongoing priority lock and dam construction projects (Lower Monongahela Locks and Dams 2, 3 and 4 Replacement, Kentucky Lock Addition and Chickamauga Lock).

The Administration's low-ball budget request for inland waterways system modernization runs directly counter to multiple recent actions taken by Congress to address underinvestment in lock and dam infrastructure. In (1) the Continuing Appropriations Act of 2014, (2) the Water Resources Reform and Development Act of 2014, (3) December 2014's CROmnibus, (4) the ABL Act of 2014, and (5) December 2015's Consolidated Appropriations Act, Congress has taken consistent and significant steps towards bringing annual system modernization funding to the \$380 million per year average annual level called for in the 20-year Capital Development Plan that was jointly created by navigation experts from the Corps of Engineers and the inland towing industry.

In addition to ignoring the clear Congressional policy direction just highlighted, the FY 2017 President's Budget suggests a lock and dam investment approach that not only does not fully use expected FY 2017 IWTF revenues but instead unnecessarily delays the completion of the three non-funded priority projects and actually causes the total cost to complete the three projects to increase by more than the amount that the Administration refused to budget for FY 2017 compared to the full use amount. In other words, instead of recommending the \$390 million full use amount, which would reduce by the same \$390 million the remaining cost to complete the four priority projects, the President's Budget would reduce Olmsted's completion cost by \$225 million but delay progress on the other three projects such that their total completion cost would increase by more than \$200 million. To make matters worse, the delay in completing the three non-budgeted projects could result in more than \$907 million in national economic benefits foregone during the delay.

Examined individually, the impact of adopting the Olmsted-only FY 2017 President's Budget recommendation for lock and dam modernization would be as follows according to information the Corps provided to the Board in connection with last week's Users Board Meeting No. 78 in Pittsburgh, Pennsylvania:

- Assuming that the Lower Monongahela 2, 3 and 4 Replacement project is not funded in FY 2017 but then receives efficient funding in FY 2018 and beyond, the project completion will be extended four years because of site constraints (e.g. insufficient space

for three separate contractors at the same time on the middle wall) and re-solicitation-related delays. This would result in \$800 million in foregone benefits (approximately \$200 million per year) and a direct project cost increase of approximately \$164 million (made up of \$9 million of inflation, \$24 million of project overhead cost and \$141 million of direct cost).

- Assuming that Kentucky Lock is not funded in FY 2017 but then receives efficient funding in FY 2018 and beyond, the project’s lock operational date will be extended 12 months from August 2023 to August 2024. This would result in more than \$90 million in foregone benefits and a direct project cost increase of approximately \$15 million (made up of \$8 million of inflation and \$7 million of extended project overhead cost).
- Assuming that Chickamauga Lock is not funded in FY 2017 but then receives efficient funding in FY 2018 and beyond, the project’s operational date will be postponed eight months from September 2022 to May 2023. This would result in \$17 million in foregone benefits and a project cost increase of approximately \$23 million (made up of \$13 million of inflation and \$10 million of additional project overhead cost).

Table 3 summarizes this wasteful and completely preventable situation.

Table 3: Forgone Benefits from the President’s Budget

	Delay	Increased Cost (Millions of Dollars)	Benefits Foregone (Millions of Dollars)
Lower Mon	4 Years	\$164	\$800
Kentucky	12 Months	\$15	>\$90
Chickamauga	8 Months	\$23	\$17
Total		\$202	>\$907

Following the President’s Budget proposal would be a \$202 million cost mistake and a more than \$907 million benefits foregone mistake.

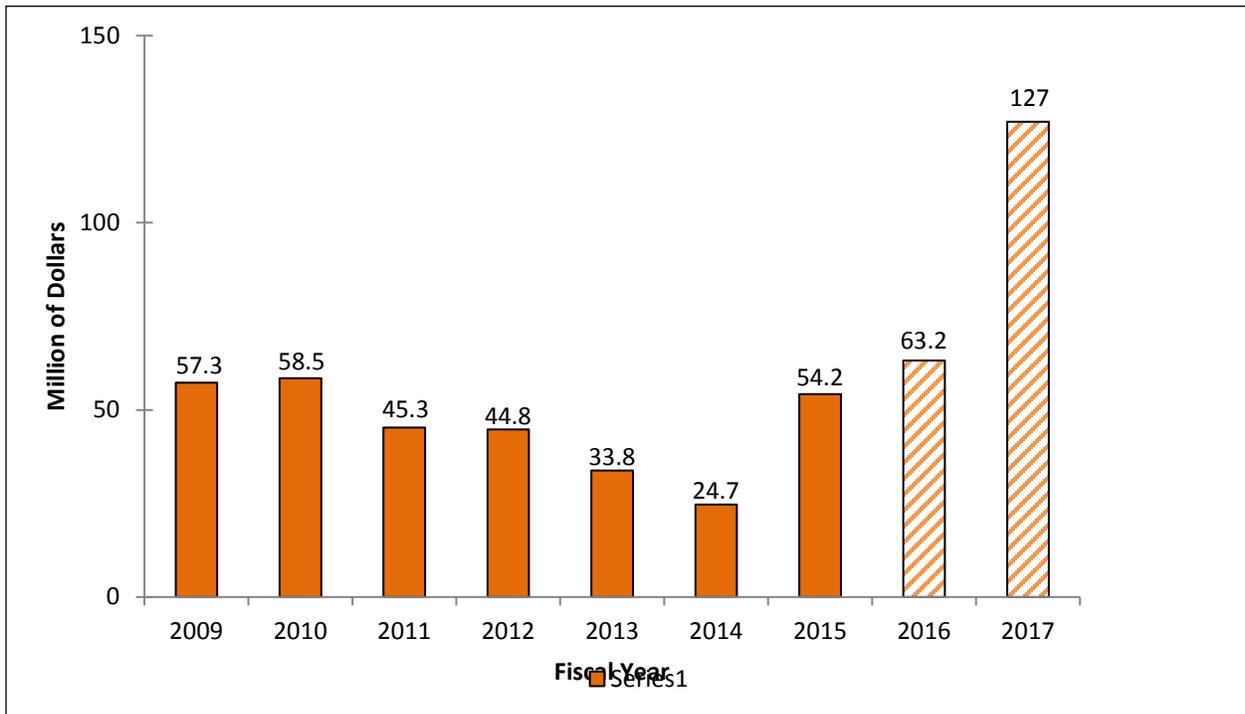
The FY 2017 President’s Budget proposal of \$2.705 billion for the Corps Operation and Maintenance (O&M) account would constitute a 13.8 percent reduction from the FY 2016 appropriated amount for O&M. According to Corps explanatory materials, inland navigation O&M activities would receive \$631 million in FY 2017, \$60 million below what the President’s Budget had proposed for FY 2016 for those activities and \$128 million below what Congress provided for inland navigation O&M in the 2016 Consolidated Appropriations Act, a 16.9 percent cut from the FY 2016 appropriated level. Within the FY 2017 President’s Budget proposal for O&M, allocations for specific waterways include:

- Mississippi River: \$189 million
- Ohio River: \$104 million
- Gulf Intracoastal Waterway: \$61 million
- McClellan-Kerr / Arkansas River: \$40 million
- Illinois Waterway: \$35 million
- Columbia / Snake Rivers: \$25 million
- Tennessee River: \$23 million, and
- Black Warrior Tombigbee: \$20 million.

Inland Waterways Trust Fund

The balance in the Inland Waterways Trust Fund at the beginning of Fiscal Year 2016 was \$54.3 million, having increased during FY 2015 by \$29.5 million due partly to increased revenues from the 9-cents-per-gallon waterway diesel fuel tax increase that went into effect April 1, 2015. According to FY 2017 President's Budget documents, the IWTF balance will balloon to \$127 million by the end of FY 2017 because the budget proposes to use only \$34 million of the \$107 million the Administration estimates will be generated during FY 2017 by waterway diesel fuel taxes. The Board believes that the IWTF balance under the proposed budget actually will be even higher -- to roughly \$136 million -- because the Board believes that Trust Fund revenues for FY 2017 will be approximately \$116 million based on historical patterns and current experience. For example, the 10-year (2005-2014) per-penny-of-tax amount generated on average each year for the Trust Fund exceeded \$4 million, as did the average for each of the five most recent full years that the 20-cent-per-gallon tax was in effect (2010-2014). Results seen for FY 2015, during which the 20-cent tax rate was in effect for the first half of the year and the 29-cent rate was in effect for the second half, similarly tracked the \$4 million per penny of tax average annual revenue experience. The first five months of FY 2016 have also produced similar revenue results according to U.S. Treasury Department monthly reports. Figure 3 illustrates recent IWTF end-of-year balance experience and projected balances under the FY 2017 President's Budget proposal.

Figure 3: Inland Waterways Trust Fund End-of-Year Balance



Regardless of whether the Administration’s projected end-of-2017 figure or the higher Users Board estimate is used, it is clear that the President’s Budget seriously under-utilizes the inland waterway modernization capacity generated by FY 2017 diesel tax revenues and available for investment in FY 2017 if fully used.

Inland Waterways Users Board Recommendations

Review of the FY 2016 Work Plan, the FY 2017 President’s Budget proposal, and experience to date with the Inland Waterways Trust Fund convinces the Board that the recommendations we made in our December 2015 28th Annual Report for Fiscal Year 2017 should continue to command our strong support. Thus the Board continues to recommend for FY 2017:

- **Congress should appropriate for the construction of inland waterway modernization projects the maximum amount supportable --- approximately \$390 million --- based on an estimated \$116 million in expected FY 2017 IWTF revenues;**
- **Continuing to use the project priority list contained in the Capital Development Plan dated April 13, 2010³, the Administration should fully allocate that \$390**

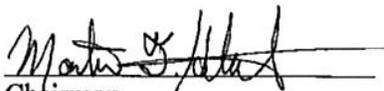
³ The Board notes that a little more than a week ago, the Administration finalized the Secretary of the Army’s 20-year Capital Investment Strategy (CIS) called for in WRRDA 2014. The Secretary’s CIS report is substantially different from what the Board and other navigation industry representatives worked on a year ago, does not

million to specific projects as follows: \$225 million for Olmsted Locks and Dam, \$66 million for Lower Monongahela Locks and Dams 2, 3 and 4, \$52 million for Kentucky Lock, \$19 million for Chickamauga Lock, and \$28 million for major rehabilitation at LaGrange Lock;

- Congress should appropriate at least \$3.14 billion for the Operation and Maintenance activities of the Corps of Engineers affecting inland and coastal navigation throughout the nation;
- At least \$10 million each year should be allocated during Fiscal Years 2016 and 2017 from the Corps Investigations appropriation account for Pre-construction Engineering and Design (PED) of one or two lock modernization projects on the Upper Mississippi River and Illinois Waterways system authorized in title VIII of the Water Resources Development Act of 2007 (Public Law 110-114); and,
- The Corps should continue to efficiently fund the General Re-evaluation Report (GRR) for the Inner Harbor Navigation Canal (IHNC) Lock Replacement so that construction can be resumed on this priority project at the earliest opportunity.

Since the 28th Annual Report was submitted this past December, the Board has been made aware that completion of the feasibility report for the Upper Ohio Navigation Study has been further delayed until January 2017. **The Board recommends the Corps expedite the final Chief's Report for the Upper Ohio Navigation Study as soon as practicable, while not compromising the integrity of the final report.**

Sincerely,



Chairman
Mr. Martin T. Hettel
American Commercial Barge Line
Jeffersonville, Indiana

April 8, 2016
Date

represent the position or have the concurrence of the Board, and should not be used to change the priorities of the Capital Development Plan.

Copies to:

Senator Orrin Hatch, Chairman, Senate Committee on Finance

Senator Ron Wyden, Ranking Member, Senate Committee on Finance

Senator Thad Cochran, Chairman, Senate Appropriations Committee

Senator Barbara Mikulski, Ranking Member, Senate Appropriations Committee

Senator James Inhofe, Chairman, Senate Committee on Environment and Public Works

Senator Barbara Boxer, Ranking Member, Senate Committee on Environment and Public Works

Congressman Hal Rogers, Chairman, House Appropriations Committee

Congresswoman Nita Lowey, Ranking Member, House Appropriations Committee

Congressman Kevin Brady, Chairman, House Committee on Ways and Means

Congressman Sandy Levin, Ranking Member, House Committee on Ways and Means

Congressman Bill Shuster, Chairman, House Committee on Transportation and Infrastructure

Congressman Peter DeFazio, Ranking Member, House Committee on Transportation and Infrastructure