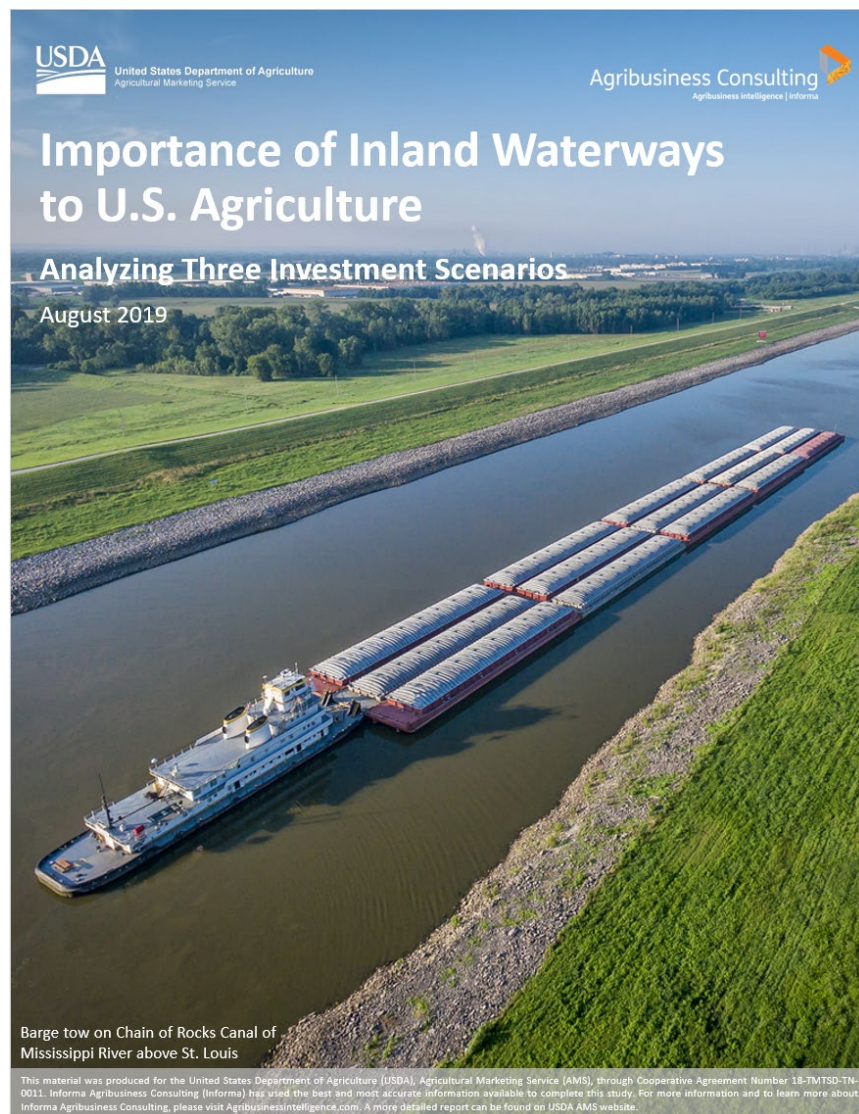


INLAND WATERWAYS USERS BOARD 32ND ANNUAL REPORT

To the SECRETARY OF THE ARMY
And the UNITED STATES CONGRESS

December 2019



U.S. Department of Agriculture August 2019

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INTRODUCTION AND BACKGROUND

“Logistics and transportation are some of the most important aspects to farming, and America’s superior inland waterways are critical to our overall agricultural system....water transport is the most efficient, cost-effective transportation for our producers, and our waterways keep the American exporter the most competitive in the world.”

Sonny Perdue
Secretary, U.S. Department of Agriculture
August 28, 2019

Attending a town hall meeting at Mel Price Locks and Dam on the Mississippi River near St. Louis, Missouri, Secretary of Agriculture Perdue highlighted the enormous importance of the nation’s inland waterways to the competitiveness of American agriculture in global markets and to the overall U.S. economy. The meeting was held to release a new Department of Agriculture-sponsored study, titled “Importance of Inland Waterways to U.S. Agriculture”, that quantifies the positive economic benefits and competitive advantages to the U.S. that would accrue from increased investment in the nation’s inland waterways transportation system. As numerous previous studies similarly have concluded, many of which studies have been mentioned in earlier Users Board annual reports, the new U.S. Department of Agriculture (USDA) study demonstrates that making these increased investments clearly is warranted.

Agriculture, of course, is just one segment of our national economy that benefits from what Secretary Perdue described as “America’s superior inland waterways.” The U.S. has more navigable inland waterways than any other country in the world. Our inland waterways system is a critical artery for the U.S. as it makes possible the safe and efficient waterborne transportation of the building blocks of the U.S. economy resulting in competitive advantages for our nation and supporting investments in domestic industrial activity. In addition to agricultural products, our inland waterways support a number of industries through the movement of items such as petroleum for oil refineries, feedstocks for chemical plants, cement, aggregates and steel products for roads, buildings and other infrastructure, fuel for power plants, and iron ore for steel mills. In the petrochemical industry alone, there are over \$200 billion of facilities being developed in areas that will rely on inland marine transportation along the Gulf coast and Ohio River Valley.

Former U.S. Army Corps of Engineers Chief of Engineers Lieutenant General Thomas P. Bostick aptly summarized a few years ago the nation’s inland waterways investment challenge. Presenting testimony at a House committee hearing, he said “The ability to leverage our extensive interior navigable waterways system is essential to our (nation’s) economic advantage and geopolitical dominance.”

Our international competitors are not inclined to sit back and cede advantage to the U.S. On the contrary, foreign competition from countries like Brazil, which is prioritizing the improvement of its internal land and water transportation arteries, and from China, which is investing

aggressively in its own and South America's transportation infrastructure, is expected to continue to intensify.

In recent years, particularly since 2014, Congress has recognized the need and has appropriated significant additional funds for the construction and major rehabilitation of locks and dams on the inland waterways system. Continuation of this increased level of investment, however, is currently in jeopardy due to limitations imposed by, among other things, reliance on an outdated construction cost sharing formula. This must be rectified as soon as possible.

As outlined in greater detail in the balance of this Annual Report, from the perspective of the Users Board, the most important near-term investments that need to be made to continue to support commerce on our inland waterways system include:

1. Continued support of efficient funding for current in-progress lock and dam modernization projects
 - a. \$335 million for Olmsted Locks and Dam (Olmsted) , Monongahela River Locks and Dams 2, 3 & 4 (Mon River or Lower Mon), Kentucky Lock Addition (Kentucky) and Chickamauga Lock (Chickamauga) projects in FY 2020; and
 - b. \$836 million in expected remaining costs beyond FY 2020 for Kentucky and Chickamauga.
2. Providing for the required Preconstruction Engineering and Design (PED) funding to prepare the next high-priority projects for ultimate construction (Upper Ohio Navigation, Three Rivers, and the Upper Mississippi River – Illinois Waterway Navigation and Ecosystem Sustainability Program (NESP).
3. Better leveraging the (Inland Waterways Trust Fund) IWTF-financed construction of these and future contracts through (i) changing the cost share ratio to require 75% of the project costs to be funded from General Treasury revenues and 25% of the project costs to be funded through the IWTF, and (ii) fully utilizing the demonstrated IWTF revenue of at least \$116 million annually.

Investment in modernization of our inland waterways lock and dam transportation system is not consumptive spending. Instead, it is future-oriented spending to increase the wealth-producing capacity of this great nation, wealth that is essential to sustain and improve our country's security and standard of living for our children and their children. The U.S. Army Corps of Engineers (the Corps) has demonstrated that, in partnership with the American worker, if provided efficient funding and appropriate resources to execute projects without interruption, it can and will restore our inland waterways infrastructure to a state that supports the continued prosperity of our nation. The Users Board believes that to be a matter of high priority for all of us and appreciates the continued support of Congress for this critical infrastructure reinvestment plan.

U.S. Department of Agriculture (USDA) Inland Waterways Report

At the Users Board's Meeting No. 92nd in Springfield, VA on September 12, 2019, the Board was briefed by a Department of Agriculture senior representative on the USDA-sponsored "Importance of Inland Waterways to U.S. Agriculture" report that had been released a few weeks earlier. The PowerPoint slides used by the briefer are contained in Appendix C.

The report was prepared to document and quantify the importance of the inland waterways system to the U.S. economy, specifically to U.S. agriculture. Among its findings is that "due to its efficiency and lower costs, the inland waterways system saves between \$7 billion and \$9 billion annually over the cost of shipping by other modes."

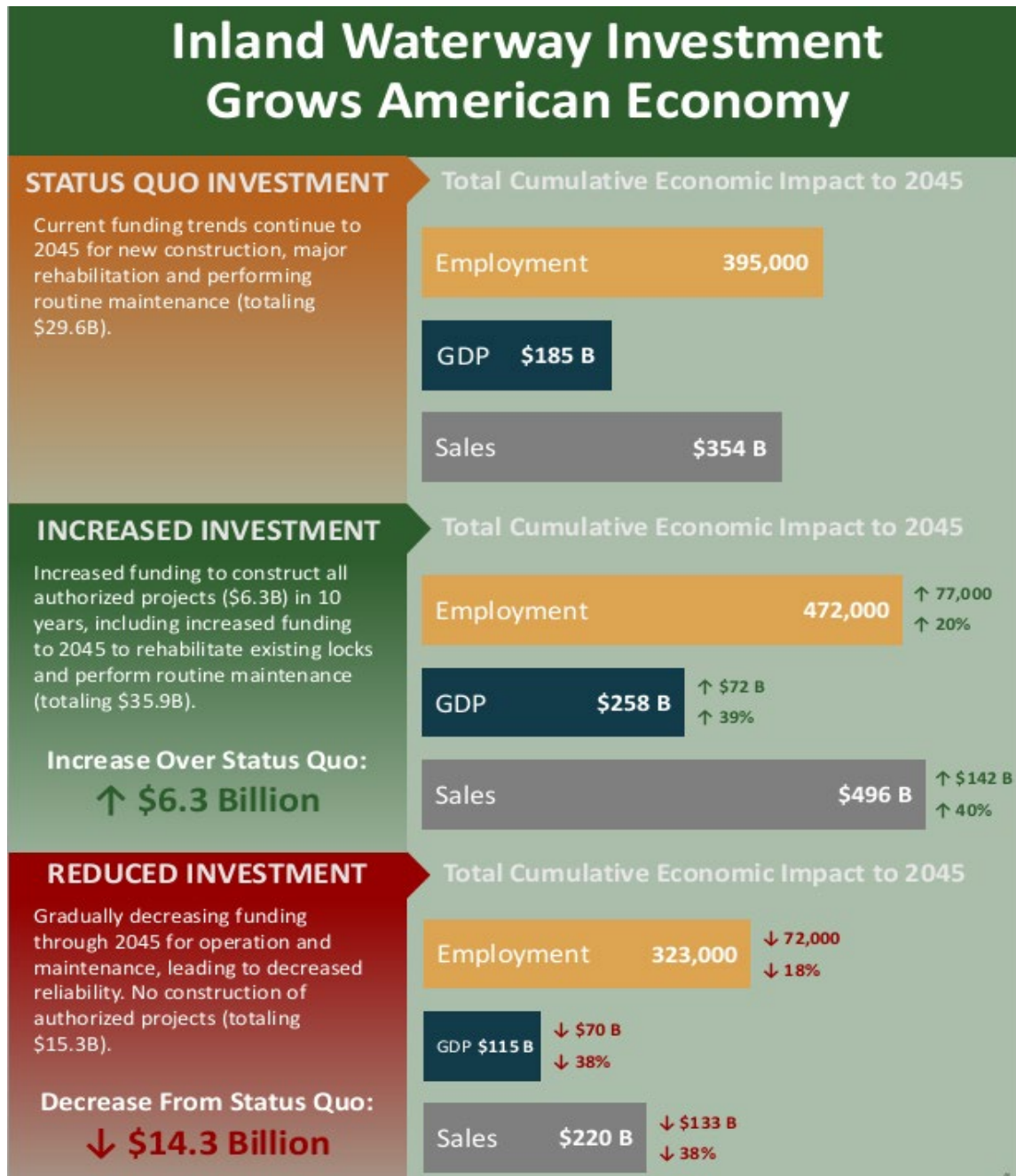
The report analyzed the following three funding scenarios:

- Status Quo Investment (Status Quo): no new construction and rehabilitation spending beyond the \$215 million annual level suggested in the President's Fiscal Year (FY) 2016 proposed budget*, with annual operation and maintenance for inland navigation set at \$665 million per year.
- Increased Investment: funding for construction and rehabilitation of inland waterways infrastructure projects increased to complete in ten years construction of all of the twenty-six modernization projects identified in the Inland Waterways Users Board's 30th Annual Report, most of which were also included in the Secretary of the Army's 2016 Capital Investment Strategy (CIS) Report.
- Reduced Investment: no new construction or additional dredging of the inland waterways system, with operation and maintenance funds decreased one percent every year and no proactive maintenance or repairs, i.e., a return to the discredited "fix as fails" O&M policy of recent years.

The USDA report clearly validates its "Importance of Inland Waterways to U.S. Agriculture" title. It conclusively makes the case for significant additional investment in the modernization of the nation's inland waterways system infrastructure. For example, Figure 1 summarized the cumulative economic impact (to the year 2045) of the three different funding scenarios, with the Increased Investment scenario leading, among other things, to a 39 percent/\$72 billion increase in Gross Domestic Product (GDP), while the Reduced Investment scenario leads to a 38 percent/\$70 billion decrease in GDP. The \$72 billion increase in GDP in the Increased Investment scenario delivers an estimated 11.4 x multiple on the incremental funding required through 2045 alone and this scenario also results in a 20 percent, 77-thousand increase in employment and a 40 percent, \$142-billion increase in sales.

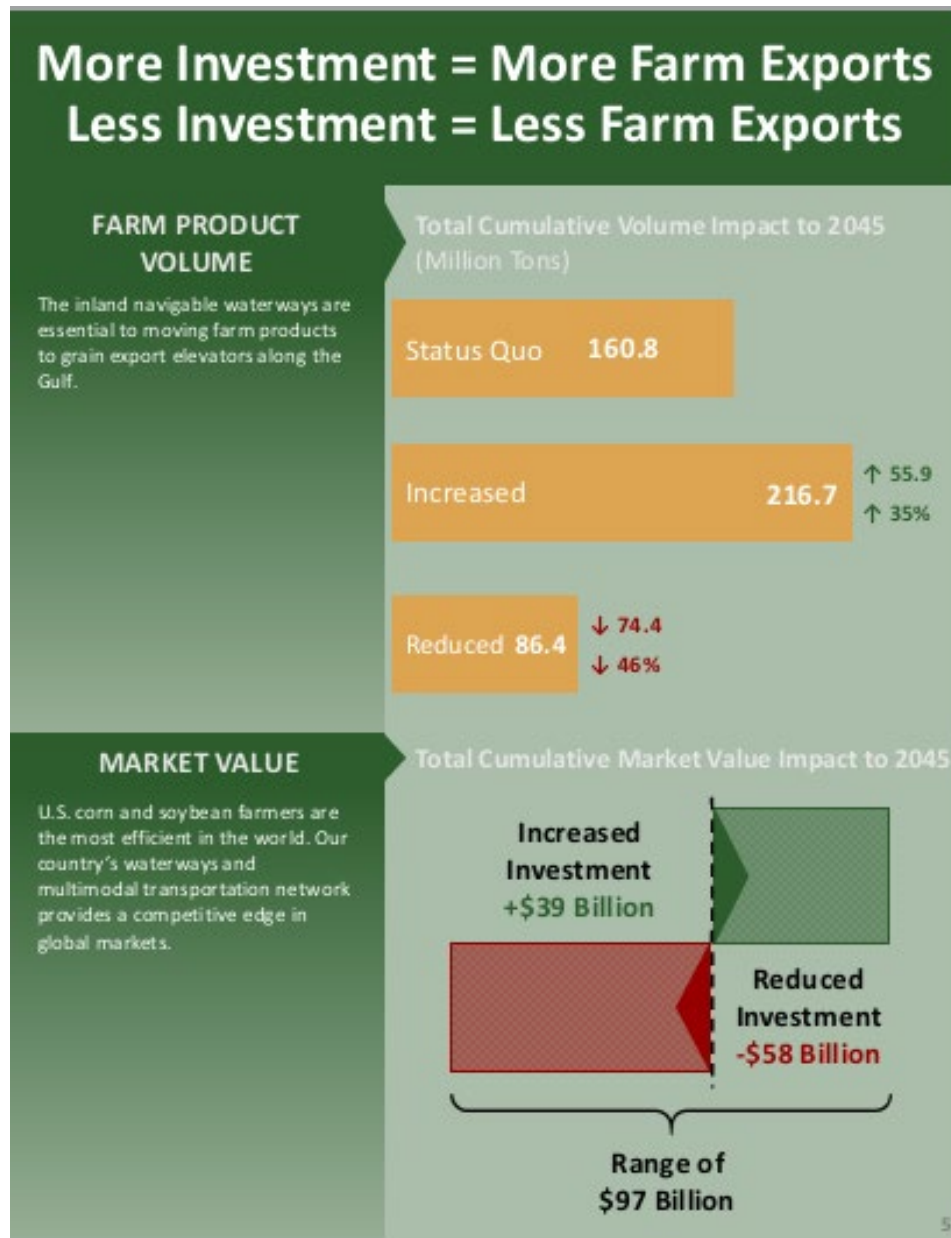
* The \$215 million figure in the FY 2016 President's Budget was the largest funding amount for inland navigation lock and dam construction and major rehabilitation contained in any President's Budget in the past five fiscal years.

Figure 1: Cumulative Economic Impact



Similarly, Figure 2 summarizes the farm export impact of the Increased Investment scenario, on the one hand, and the Reduced Investment scenario on the other.

Figure 2: Farm Export Investment Impact



As logic would suggest, the Increased Investment scenario leads to a significant increase in both the volume and market value of U.S. farm exports, while the Reduced Investment scenario significantly decreases the volume and market value of our exports.

INLAND WATERWAYS USERS BOARD in 2019

Users Board Membership

The membership of the Users Board underwent significant change during 2019, with the terms of office for six of the Board's eleven members expiring in May, including the terms of both the Chairman and Vice-Chairman. Six new Board members were appointed to two-year terms through May of 2021, as follows:

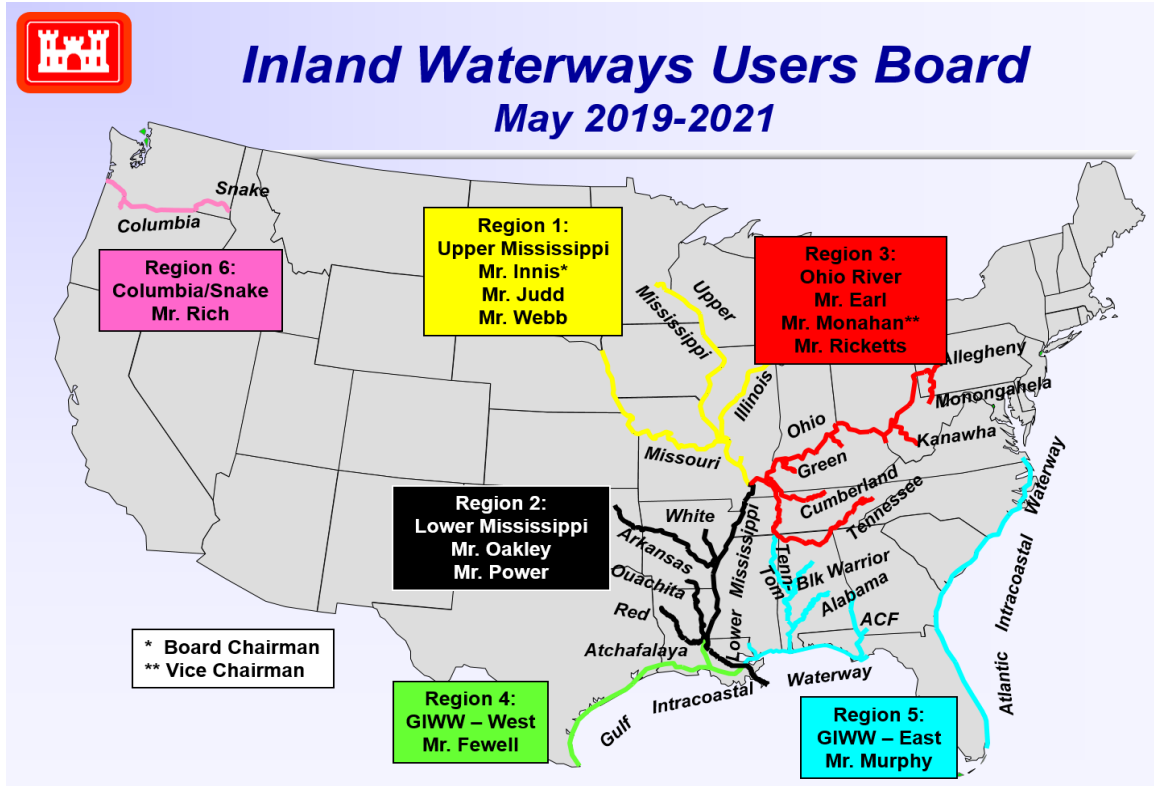
- Mr. Damon Judd, Marquette Transportation, Paducah, KY
- Mr. Spencer Murphy, Canal Barge, New Orleans, LA
- Mr. Dennis Oakley, Bruce Oakley, North Little Rock, AR
- Mr. Tim Power, SCF Marine, St. Louis, MO
- Mr. Robb Rich, Shaver Transportation, Portland, OR
- Mr. Jeff Webb, Cargill, Minnetonka, MN

From among the five Board members who were reappointed to another two-year term of office, Mr. Rob Innis of LafargeHolcim was appointed Users Board Chairman and Mr. Mike Monahan of Campbell Transportation was appointed Vice-Chairman, each for the two-year term.

Both the returning Board members and the new Board members took the oath of office at Board Meeting No. 92 held on September 12, 2019, in Springfield, VA.

The waterways subjected to fuel taxes have been subdivided into six geographic regions, with the intent that each region be represented by at least one Board member based on the regional concentration of the respective member's firm's traffic on the waterways. Figure 3 illustrates the Corps-assigned regional representation determinations for the 11 current Users Board Members.

Figure 3: Inland Waterways Users Board Membership, May 2019-2021



Meetings

Section 2002 of the Water Resources Reform and Development Act of 2014 (WRRDA) requires (1) the Users Board to “meet not less frequently than semi-annually” and (2) the Secretary of the Army to “communicate not less frequently than once each quarter to the Users Board the status of inland waterways system project activity throughout the nation.” Pursuant to this requirement, the Users Board held three formal meetings during calendar year 2019, as follows:

- Meeting No. 90 on February 28th in Galveston, Texas;
- Meeting No. 91 on May 23rd in New Orleans, Louisiana; and
- Meeting No. 92 on September 12th in Springfield, Virginia.

On the day preceding meetings Nos. 90 and 91, a project site visit and briefing by the U.S. Army Corps of Engineers was conducted, at Colorado River Locks prior to Board Meeting No. 90 and, prior to Board Meeting No. 91, at the Inner Harbor Navigational Canal (IHNC) Lock in New Orleans and at Bayou Sorrel Lock in Iberville Parish, LA. No site visit or briefing was held prior to Board Meeting No. 92.

Prior Public notice of all three Users Board meetings was published in the Federal Register, and all three meetings were open to the public and held under the provisions of the Federal Advisory Committee Act of 1972, as amended.

Post-Budget Advice and Recommendations Submission

Subsection 2000(d) of WRRDA requires the Inland Waterways Users Board to provide advice and recommendations to Congress related to the President's Budget proposal for inland waterways construction and rehabilitation priorities and spending levels. On May 10, 2019, The Users Board's Advice and Recommendations on the proposed FY 2020 President's Budget was transmitted to Congress, a copy of which is included as Appendix D in this 32nd Annual Report.

INLAND WATERWAYS TRUST FUND

Revenues

Annual revenues deposited into the Inland Waterways Trust Fund (IWTF) during FY 2019 continued to increase. According to the Treasury Department's IWTF status report for the month ending September 30, 2019, revenue totaling \$121.2 million was deposited into the IWTF during FY 2019, \$117 million in diesel fuel taxes and \$4.2 million in interest. The \$121.2 million total constituted a \$4.4 million increase above the annual total for FY 2018 and a \$6.8 million IWTF revenue increase above the total for FY 2017, as reflected in Table 1.

On average annual receipts into the Inland Waterways Trust Fund during the four years during which the 29 cents-per-gallon diesel fuel tax was in effect for the full year (FYs 2016 through 2019) amounted to \$115.85 million per year.

Table 1: Annual IWTF Revenues (Millions of Dollars)

<u>Fiscal Year</u>	<u>Diesel Tax Receipts</u>	<u>Interest</u>	<u>Total Revenues</u>
2014 [†]	\$81.7	\$0.0	\$81.8
2015 [‡]	\$97.9	\$0.0	\$97.9
2016	\$110.9	\$0.2	\$111.1
2017	\$113.7	\$0.7	\$114.4
2018	\$115.0	\$1.8	\$116.8
2019	\$117.0	\$4.2	\$121.2

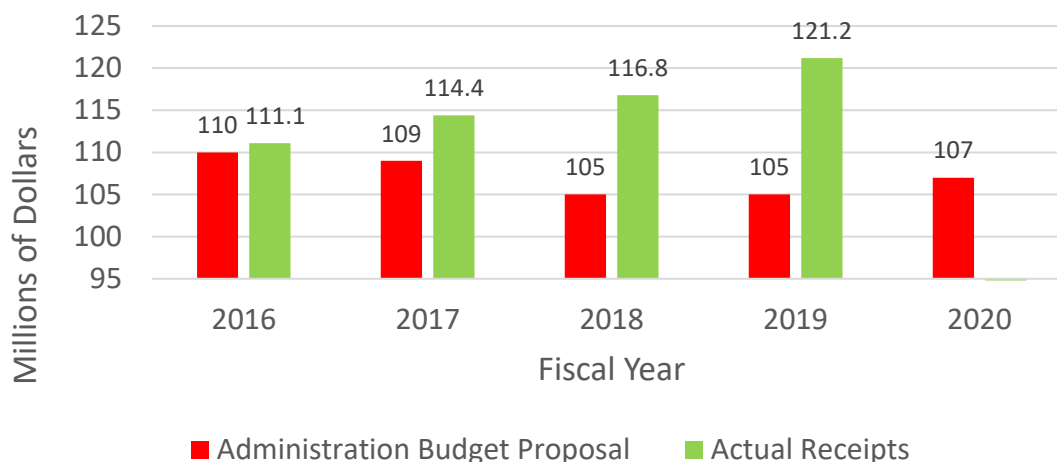
In each of the budget proposals submitted to Congress for expenditures during the FY 2016 through FY 2019 timeframe, the Administration underestimated what the IWTF revenues would be for that year, consistently missing the mark by increasing amounts over the four-year period. Figure 4 compares the President's Budget proposal estimates for the four years with actual inland waterways diesel fuel tax revenues deposited into the Inland Waterways Trust Fund for each of those years. As Figure 4 illustrates, the Administration's underestimate of IWTF revenues grew from \$1.1 million in FY 2016 to \$5.4 million in FY 2017, to \$11.8 million in FY 2018, to \$14.2 million in FY 2019.

[†] Full year fuel tax collection at 20 cents per gallon.

[‡] Half-year fuel tax collection at 20 cents per gallon and half-year at 29 cents per gallon, effective April 1, 2015.

The Users Board believes that reliance on the Administration’s consistently-too-low IWTF annual revenue estimates would lead to unnecessary under-investment in the inland waterways system’s modernization and strongly recommends against such reliance going forward.

Figure 4: Annual Inland Waterways Trust Fund Receipts

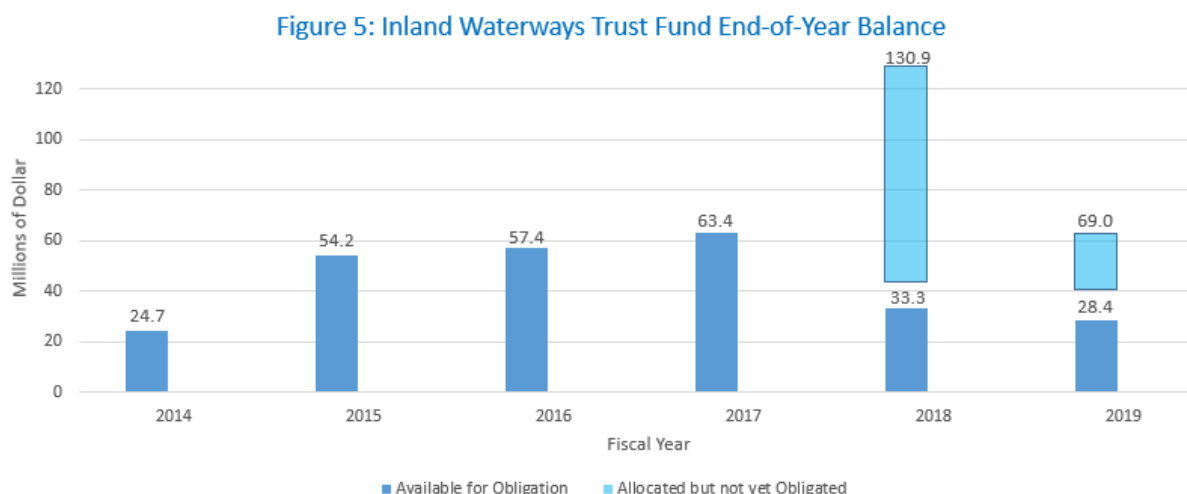


End-of-Year IWTF Balance

Figure 5 illustrates how the end-of-fiscal-year balance in the Inland Waterways Trust Fund (IWTF) has changed from year to year since FY 2014. The \$69 million balance at the end of FY 2019 represents significant improvement from the \$130.9 million end-of-year balance for FY 2018. This improvement resulted in an unusually-large “catch-up” transfer from the IWTF to the Corps during FY 2019 of \$183.2 million to compensate for the abnormally-low \$49.3 million transfer in FY 2018.¹

The Users Board notes that, overall, the end-of-year balance in the IWTF is gradually increasing and urges the Corps to fully employ IWTF resources to optimize the construction productivity of those resources while continuing to operate in a fiscally-sound manner. The Users Board believes a significantly lower minimum reserve balance in the IWTF of approximately \$20 million would provide ample cushion for variations in IWTF receipts but not unnecessarily restrict spending on the critical projects in the pipeline.

¹ As indicated in the Board’s 31st Annual Report, the Corps explained FY 2018’s low obligation level as being caused by not having enough time to obligate and spend more due to how late in the fiscal year the Consolidated Appropriations Act (P.L. 115-141) was signed into law.



PRIORITY MODERNIZATION PROJECTS

On-going Construction

Five IWTF-financed inland waterways lock and dam modernization projects are currently under construction: Olmsted Locks and Dam, Monongahela River Locks and Dams 2, 3 & 4, Kentucky Lock Addition, Chickamauga Lock, and the major rehabilitation of LaGrange Lock and Dam. Of the \$2.183 billion in Construction Account funds that Congress appropriated to the Corps for FY 2019, \$329.8 million was allocated to the continued construction of these five projects, as reflected in Table 2.

Table 2
FY 2019 Funding Allocation
(Millions of Dollars)

Priority Project	FY 2019 Allocation
Olmsted Locks & Dam	\$50.0
Monongahela River Locks & Dams 2, 3 & 4	\$89.0
Kentucky Lock Addition	\$43.6
Chickamauga Lock	\$89.7
LaGrange Lock & Dam (Major Rehab)	\$57.5
Total	\$329.8

At Users Board Meeting No. 92 held on September 12th, the Corps reported the funding status of each project through the end of FY 2019 as indicated in Table 3.

Table 3
Top Priority Projects Funding Status*
(Millions of Dollars)

	Total Estimated Cost	Allocations ≤ FY 2019	Remaining Cost > FY 2019
Olmsted Locks & Dam	\$2,853	\$2,790	\$63
Monongahela River L&Ds 2-3-4 (with deferrals)**	\$1,090	\$1,013	\$77
Kentucky Lock Addition	\$1,216	\$586	\$630
Chickamauga Lock	\$792	\$425	\$367
LaGrange (Major Rehab)	\$68	\$68	\$0
Total	\$6,019	\$4,882	\$1,137

At Board Meeting No. 92 held September 12th, Corps project briefers indicated that, if Olmsted's remaining balance was spread over two years, for FY 2020 the efficient funding amounts required for the on-going IWTF-financed construction projects are \$35 million for Olmsted*, \$111 million for Lower Mon, \$66 million for Kentucky, and \$95 million for Chickamauga. No additional FY 2020 construction funds were identified as necessary to complete the LaGrange major rehabilitation project. Providing these project-specific allocations in the FY 2020 Work Plan would leave three of the five ongoing construction projects requiring additional funds after FY 2020....Olmsted, Kentucky, and Chickamauga, as reflected in Table 4. Funding all of Olmsted's remaining costs in FY 2020 would leave only Kentucky and Chickamauga in need of post-FY 2020 funding.

Table 4
Post-FY 2020 Funding Requirements
(Millions of Dollars)

	Remaining Cost > FY 2019	FY 2020 Allocation	Remaining Cost > FY 2020
Olmsted Locks & Dam	\$63	\$35*/\$63	\$25/\$0
Mon River L&Ds 2-3-4	\$77	\$111	\$0
Kentucky Lock Addition	\$630	\$66	\$564
Chickamauga Lock	\$367	\$95	\$272
Total	\$1,137	\$307/\$335	\$861/\$836

* Based on figures reported at the September 12, 2019, Users Board Meeting No. 92 in Springfield, VA, except for Kentucky, which is based on May 23's Meeting No.91.

** Monongahela River Locks and Dams 2-3-4 costs exclude construction of the land chamber and Port Perry Bridge, which have been deferred.

* Subsequently increased to \$38 million. The September 12 Corps-reported remaining balance figures for Olmsted were internally inconsistent, indicating \$77 million in one slide and \$63 million in another slide. The Board understands the lower figure to be the correct amount and has reflected that amount in this year's Annual Report.

Record-setting high-water levels throughout the U.S. in 2019 increased the project execution challenge for the Corps, but significant construction progress nonetheless continued this year towards completing the suite of ongoing lock and dam modernization projects.

Monongahela River Locks and Dams 2, 3 & 4 (Mon River or Lower Mon). This project was reported by the Corps as under budget and getting very close to being finished. In June of this year, the Charleroi river chamber completion contract was fully funded, with work on the base contract reported to the Board at Board Meeting No. 92 in September, as being essentially completed and work on options 1, 2, and 3 progressing well. Options 4 and 5 will begin to proceed once the work on the middle wall is complete. The FY 2020 President's Budget proposal requested \$111 million to fully fund the remainder of the project, including work on the stilling basin, which is currently envisioned to be completed in November of 2022. Congress provided all of the requested FY 2020 funding for completion of the Lower Mon project.

Kentucky Lock Addition. The Corps reported that construction is proceeding very well on the Kentucky Lock Addition project. The downstream lock excavation contract is on schedule, thanks to the creativity and flexibility of the combined Corps/contractor team. The construction schedule for Kentucky was seriously threatened by the unusual high-water conditions this year at the project. Working together, the Corps/contractor team was able to take advantage of the base-with-options features of the construction contract that is in place to revise the work plan through a no-cost modification and keep from experiencing a three-month project delay that otherwise probably would have led to the need to pay additional impact costs associated with the high water. The Board very much appreciates the can-do attitudes and engineering expertise that were displayed to make this happen in such a positive fashion.

Chickamauga Lock. The Chickamauga project is "going extremely well, (with) no significant issues", according to the Corps project briefer. The lock chamber construction contract is a \$240 million fixed price, base-plus-thirteen-options contract. Eight of the options, valued at \$156 million, have been exercised. With efficient funding for FY 2020, options 9, 10 and 11 are scheduled to be exercised in 2020, leaving just two small options remaining to be funded after FY 2020. High water conditions were experienced at Chickamauga this year, causing a temporary negative impact on the project's schedule, but the contractor has been able to regain the lost time and is now back on schedule. While great progress has been made to date on the project, an estimated \$367 million is currently projected as being needed through FY 2023 to complete construction of the Chickamauga project.

Olmsted Locks and Dam. With Olmsted becoming operational in August of 2018, high water conditions began to impact the scheduled remaining work a few months later, essentially causing three months of the 2018 construction season to be lost and also causing the 2019 construction season to get a late start. In total, eight months on Olmsted's schedule were lost, which led to the need for \$63 million in additional funding to complete and close out the project. Items remaining to be accomplished include the second phase of the removal of both Ohio River Locks and Dam 52 and Locks and Dam 53 and the repaving of selected county roads that were impacted by Olmsted's project construction activity.

Preconstruction Engineering and Design (PED)

Three authorized navigation lock and dam modernization projects already have received significant Preconstruction Engineering and Design (PED) funding to prepare each of those projects for construction to begin soon: Upper Ohio Navigation, Three Rivers, and the Upper Mississippi River – Illinois Waterway Navigation and Ecosystem Sustainability Program (NESP).

- Upper Ohio Navigation. The Upper Ohio Navigation project was authorized by Congress in the Water Resources Development Act of 2016 (Title I of P.L. 114-322, also referred to as the Water Infrastructure Improvements for the Nation Act) to improve navigation through the aging and failing Emsworth, Dashields, and Montgomery locks and dams. These locks and dams are the oldest on the Ohio River System, all more than 70 years old, and have the smallest lock chambers on the entire river system. When built, the authorized project will replace the 56-foot x 360-foot auxiliary chamber at each of the three locations with higher-capacity 110-foot x 600-foot lock chambers.

To date, the Corps has received \$10.378 million in post-authorization PED funding (\$5.525 million in FY 2017, \$2.353 million in FY 2018, and \$2.5 million in FY 2019). Additional PED work must be performed, according to the Corps, before project construction can begin. The Board understands that the Corps' FY 2020 "capability" level of funding needed to perform this work for the Upper Ohio Navigation project is \$40 million. No additional PED funding for the Upper Ohio project was requested in the proposed President's Budget for FY 2020.

- Three Rivers Navigation. Congress authorized the Three Rivers navigation project in the Water Resources Development Act of 2018 (P.L. 115-270). Located where the White and Arkansas Rivers meet the Mississippi River, the \$180.3 million project calls for the construction of a new containment structure to address uncontrolled flows between the rivers, construction of a relief channel, conversion of approximately 20 acres to bottomland hardwood wetland forest, and re-connecting Owens Lake with the White River. According to the Corps, approximately \$12.3 million in PED funding is needed for the Three Rivers project, of which, during FY 2019, \$3.424 million was allocated to the project. An additional \$1.5 million has been requested in the FY 2020 President's Budget proposal, which, if appropriated by Congress, would leave \$7.418 million after FY 2020 to complete PED for the Three Rivers project.
- Upper Mississippi River – Illinois Waterway Navigation and Ecosystem Sustainability Program (NESP). Having designated the Upper Mississippi River System in WRDA 86 (P.L. 99-662) as a "nationally significant ecosystem and a nationally significant commercial navigation system", Congress authorized NESP in WRDA 2007 (P.L. 110-114) as an unprecedented, dual-purpose authority for the Corps of Engineers to integrate navigation and ecosystem management of the Upper Mississippi River System. NESP includes construction of seven 1200-foot locks, five on the Upper Mississippi River and two on the Illinois Waterway, as well as more than \$1.7 billion

to restore the river system's ecological integrity and ability to support fish and wildlife.

To date, more than \$62 million has been appropriated for PED for NESP, virtually all of which was provided during the first five years following NESP's authorization. Significant additional PED funding is needed in order to be able to receive new start construction funding. Strong bipartisan, bicameral Congressional support continues to exist for NESP PED funding, as reflected in Appendix E.

Anticipated Near-Term Authorizations

The Corps of Engineers has completed or is close to completing work on the authorization documents for construction of three inland navigation improvement projects, which will be candidates for inclusion in next year's water resources development act (WRDA).

- Gulf Intracoastal Waterway (GIWW), Brazos River Floodgates. Characterizing it as a part of a "vital project providing safe and efficient navigation on The Nation's Gulf Coast", the Chief of Engineers transmitted to Congress on October 23, 2019, his report recommending construction authorization of the Brazos River Floodgates on the GIWW. Intended to reduce navigational difficulties, delays and accidents, the \$158.147 million IWTF-cost-shared project includes the removal of the existing gates on both sides of the river crossing, the construction of a 125-foot wide open channel on the west side, and a new 125-foot wide sector gate on the east side. The project will generate \$35.411 million average annual net benefits and the Corps has projected its benefit-to-cost ratio as 5.04 to 1 at a 2.75 percent discount rate.
- Gulf Intracoastal Waterway (GIWW), Colorado River Locks. This project was included as a second component of the same October 23rd Chief's report that recommends authorization of the Brazos River Floodgates. The recommended plan for the Colorado River Locks will reduce accident risk at the lock by approximately 99 percent. The main features of the recommended plan are two new 125-foot sector gate structures, one each on the east and west sides of the river, set back approximately 1,000 feet from the river crossing. The \$251.63 million Colorado River Locks component will generate average annual net benefits of \$6.317 million and the Corps has projected its benefit-to-cost ratio as 1.65 to 1 at a 2.75 percent discount rate.
- Gulf Intracoastal Waterway (GIWW) Inner Harbor Navigation Canal (IHNC) Lock. The Corps of Engineers is in the final stages of completing its integrated General Re-evaluation Report (GRR) and Supplemental Environmental Impact Statement (SEIS) on the Inner Harbor Navigation Lock Replacement project in New Orleans, LA. The tentatively selected plan (TSP) calls for replacing the current undersized near-century-old lock on the IHNC with a larger shallow-draft lock in order to significantly reduce transit times of waterborne traffic locking through the IHNC, improve efficiency, and increase reliability. The GRR is currently scheduled to be finalized in February 2020 and, based on the draft released in January of 2019, is expected to show strong economic justification for the project.

The Inland Waterways Users Board strongly supports construction authorization of all three of these projects in 2020.

Capital Investment Strategy Update

For many years, critics of the Corps of Engineers' construction program complained about what they perceived to be an inadequate future-directed investment approach that did not look beyond the constraints of the one-year-at-a-time federal budget cycle. Partly to address this criticism and to identify additional ways to improve both the Corps project delivery performance and the long-term viability of the inland waterways transportation system, a team of inland navigation experts from the Corps of Engineers and the waterways industry worked together for almost two years to jointly develop a report titled the "Inland Marine Transportation System (IMTS) Capital Projects Business Model" (CPBM). This 2010 consensus document, also often referred to as the "Capital Development Plan" (CDP), was unanimously approved by the Users Board in the spring of 2010. Among its recommendations, the Corps/industry report contained a recommended 20-year project-specific capital investment strategy (CIS), including the recommendation that an "in-depth strategic-level review and refinement" of the strategy should occur at least once every five years.

Congress reacted to the report by incorporating many of its recommendations into the Water Resources Reform and Development Act of 2014 (WRRDA). Section 2002(d) of WRRDA required the Secretary of the Army "in coordination with the Users Board, to develop and submit to Congress a report describing a 20-year strategy for making capital investments on the inland and intracoastal waterways based on the application of objective, national project selection prioritization criteria,...(taking) into consideration the 2010 CPBM and, to the extent practicable, propose improvements in all geographical areas of the IMTS and ensure efficient funding of inland waterways projects."

In March of 2016, pursuant to WRRDA Section 2002(d), the "Inland and Intracoastal Twenty-Year Capital Investment Strategy" was transmitted to the Chairs and Ranking Members of the Senate Committee on Environment and Public Works and the House Committee on Transportation and Infrastructure, the Congressional authorizing committees for the Civil Works Program of the Corps of Engineers. Like the CPBM report, the 20-year strategy identified a list of prioritized new construction and prioritized major rehabilitation projects to receive funding during the 20-year period but, unlike the CPBM report, the 2016 report only contained project specific funding detail for the first five years for the seven listed prioritized projects, merely identifying fifteen other projects as having the "potential" to receive funding sometime during the last 15 years of the 20-year period.

Figure 6 summarizes the funding-priority approach of the 2016 CIS report.

Figure 6: 2016 CIS Project Funding Categorization

2016 Capital Investment Strategy		
Prioritized New Construction <u>Projects (FY 2016 – FY 2021)</u> (1) Olmsted Locks and Dam, KY & OH (2) Lower Mon Locks and Dam, PA (3) Kentucky Lock Addition, KY (4) Chickamauga Lock, TN (5) GIWW, High Island to Brazes River, TX	Potential New Construction <u>Projects (FY 2022 – FY 2036)*</u> (1) Dashields Locks and Dam, PA (UON) (2) Emsworth Locks and Dam, PA (UON) (3) GIWW, Brazos River to Port O'Connor, TX (4) Inner Harbor Navigation Canal, LA (5) La Grange 1200 – Foot Lock, IL (NESP) (6) L/D 22 1200 – Foot Lock, MO (NESP) (7) L/D 24 1200 – Foot Lock, MO (NESP) (8) L/D 25 1200 – Foot Lock, MO (NESP) (9) Montgomery Locks and Dam, PA (UON)	Potential Major Rehabilitation <u>Projects (FY 2022 – FY 2036)*</u> (1) Brandon Road Lock and Dam, IL (2) Dardanelle Lock and Dam, MKARNS (3) Dresden Island Lock and Dam, IL (4) Greenup Locks and Dam, KY & OH (5) L/D 18 Mississippi River, IL (6) Starved Rock Lock and Dam, IL
Prioritized Major Rehabilitation <u>Projects (FY 2016 – FY 2021)</u> (1) Lagrange Lock and Dam, IL (2) Thomas O'Brien Lock and Dam, IL		
*Listed Alphabetically		

The Users Board is aware that the Corps is in the early stages of performing the next five-year in-depth strategic-level review and refinement of the CIS. Board members look forward to being updated by the Corps at the next meeting of the Inland Waterways Users Board and to working closely with the Corps to formulate this next iteration of the CIS and to provide input on the priorities reflected therein as part of the Board's duties to *“develop and make recommendations to the Secretary regarding construction and rehabilitation priorities and spending levels on the commercial navigation features and components of the inland waterways and inland harbors of the United States”* under its mandate as outlined in the WRDA Act of 1986 and the principles of “Users Pay, Users Say” reflected therein.

Users Board members view this next iteration of the CIS to be particularly important given the planned construction completion over the next few years of all of the lock and dam modernization projects that are on-going. The Board fully expects that the transition in the CIS from completing on-going projects to initiating the efficient construction of new modernization projects will occur seamlessly and in a way that fully utilizes each year IWTF revenues to advance NESP, Upper Ohio and the other priority projects awaiting new start approval.

FISCAL YEARS 2020 and 2021

Continuing an unfortunate and ill-advised pattern that has persisted in recent years, Administration budget proposals for the overall Civil Works Program of the Corps of Engineers and, within the overall program, for construction of inland waterways system modernization projects have been woefully inadequate. In our May 2019 Advice and Recommendations submission, which is contained at Appendix D of this year's 32nd Annual Report, the Board discussed in some detail the magnitude of those budget proposal deficiencies going back to Fiscal Year (FY) 2014. We also highlighted how resolutely Congress repeatedly rejected those deficient proposals, and rectified those deficiencies by providing needed policy adjustments and additional funding in authorization and appropriations legislation.

The Board continues to be extremely grateful to the Congress for its strong support and understanding of the importance of the inland waterways system to the well-being of the nation.

Fiscal Year 2020 Work Plan

In overwhelmingly approving the Energy and Water Development and Related Agencies Appropriations Act for FY 2020 during the final days of the First session of the 116th Congress, the House and Senate again prevented a dangerously deficient set of Administration budget proposals from hobbling important national economic and environmental interests. Among its highlights, the FY 2020 E&WD appropriations act:

- Increased overall Civil Works Program funding by \$651.5 million (9.3 percent) above the enacted FY 2019 funding level and by \$2.686 billion (54.1 percent) above the President's Budget proposal;
- For the seventh consecutive year, provided record-level funding for the Corps' most important Operation and Maintenance Account activities;
- Tripled the Administration-requested \$111 million to \$335 million for construction of IWTF-financed lock and dam modernization projects, funding all four on-going modernization projects that require additional funding instead of just the single project proposed by the Administration;
- Revised the cost-share requirement for the Chickamauga Lock project for FY 2020 to 65 percent general revenue/35 percent Inland Waterways Trust Fund in order to better leverage industry-provided diesel tax revenues and improve the nation's inland waterways system's infrastructure;
- Almost doubled to \$151 million the President's Budget request of \$77 million for the Corps Investigations Account, providing much-needed additional funding to advance work on feasibility studies, including PED of projects that have not yet received new start construction funding; and
- Provided \$1.63 billion for projects funded by the Harbor Maintenance Trust Fund (HMTF), an increase of \$665 million above the Administration's FY 2020 request and an appropriation amount that exceeds by more than 11 percent the target level set by the Water Resources Reform and Development Act of 2014.

The FY 2020 Energy and Water Development and Related Agencies Appropriations Act directs the Corps to provide within 60 days of enactment a work plan delineating how the funds being appropriated are to be allocated. As mentioned earlier in this report, the Users Board understands from the Corps that the FY 2020 efficient funding levels needed for the ongoing IWTF-financed construction projects are \$38 million for Olmsted if funded over two fiscal years and \$63 million if funded to completion in one year, \$111 million for Lower Mon, \$66 million for Kentucky, and \$95 million for Chickamauga. The Board recommends that all four of these projects be funded at least at these levels in the Corps FY 2020 Work Plan with Olmsted to be funded to completion in FY 2020. The Board is similarly strongly supportive of the FY 2020 Work Plan including significant new funding from the Investigation Account for continued PED of all three previously PED-funded projects: Upper Ohio Navigation, Three Rivers, and NESP.

Fiscal Year 2021 Funding

Assuming that the project allocations for FY 2020 are made as the Board has recommended and that the current Corps project cost estimates don't change, the Board understands the FY 2021 efficient funding requirements for the two ongoing IWTF-financed construction projects that still require additional funding after FY 2020 to be \$165 million for Kentucky and \$76 million for Chickamauga. The Users Board supports the funding of these projects in these amounts for FY 2021 to the maximum extent practicable based on the availability of IWTF resources to achieve these levels. Providing this funding in FY 2021 will leave Kentucky requiring an additional \$396 million and Chickamauga requiring an additional \$197 million after FY 2021 to complete construction on these projects.

Concerning Preconstruction Engineering and Design (PED) funding for FY 2021, the Board supports PED funding for the Upper Ohio Navigation, Three Rivers, and NESP projects at the highest possible levels in order to position the projects for new start approval and the initiation of construction as soon as construction funding can be provided.

USERS BOARD RECOMMENDATIONS

- **Congress should modify the cost sharing for future spending on IWTF-financed construction projects to require 25 percent of the project cost to be derived from the Inland Waterways Trust Fund and the remaining 75 percent to come from General Treasury revenues.** This change recognizes that, in April 2015, the inland waterways diesel fuel tax was increased by 45 percent to 29 cents per gallon. It would mirror the same cost share change that Congress made in the Water Resources Development Act of 2016 (Title I of the Water Infrastructure Improvement for the Nation Act of 2016, P.L. 114-322) for the construction of ports to depths between 45 and 50 feet. It is a logical programmatic follow-on to the cost share changes made for the Chickamauga project by Congress in both the FY 2019 Energy and Water Development and Related Agencies Appropriations Act (P.L. 115-244) and in the FY 2020 Energy and Water Development and Related Agencies Act (Title I of Division D of P.L. 116-94). It would eliminate existing unintended barriers to needed infrastructure investment that the current inland waterways construction cost sharing requirement creates for future years. With this cost sharing change, there will be sufficient funds in the IWTF to continue full and efficient funding for the ongoing inland waterways projects already under construction and to allow full and efficient funding of additional important and time-sensitive projects.
- **For FY 2020, in developing the construction work plan for the fiscal year, the Administration should allocate full and efficient funding to each of the ongoing lock and dam modernization projects that still require additional funds, including \$63 million for Olmsted, \$111 million for Monongahela River Locks and Dams 2, 3 & 4, \$66 million for Kentucky Lock Addition, and \$95 million for Chickamauga Lock.** Funding these projects at these recommended levels will provide in FY 2020 all of the funds currently estimated by the Corps as necessary to complete construction of both the Olmsted and Lower Mon projects, which can be accomplished within the Construction Account amounts appropriated by Congress in the Energy and Water Development and Related Agencies Appropriations Act, 2020 (Title I of Division D of the Further Consolidated Appropriations Act, 2020, P.L. 116-94) and, in fact, is entirely consistent with what the Board understands to be Congressional intent with respect to these appropriated funds.
- **For FY 2020, in developing the Investigation Account work plan for the fiscal year, the Administration should allocate significant Preconstruction Engineering and Design (PED) funds to each of the Upper Ohio Navigation, Three Rivers, and Upper Mississippi River – Illinois Waterway Navigation and Ecosystem Sustainability Program (NESP) projects.** With completion of the ongoing construction projects projected to occur over the next few years, it is particularly important to be prepared for construction to proceed without delay on these new high-priority modernization projects.
- **For FY 2021, 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 \$116 million during FY 2021.** For the past few years, the Administration has consistently and increasingly under-estimated IWTF diesel tax revenues for the particular fiscal year of the budget proposal.

The Board-recommended \$116 million level for FY 2021 is a conservative estimate, more than \$5 million below FY 2019 IWTF revenues, almost \$1 million below FY 2018 revenues, and just slightly above the average annual IWTF revenue level of the past four federal fiscal years.

- **For FY 2021, the Administration should request in its proposed budget and Congress should appropriate for construction of inland waterways modernization projects an amount sufficient to provide full and efficient funding for each of the Board’s two ongoing priority projects that require additional funding, including \$165 million for Kentucky and \$76 million for Chickamauga.** Together with an estimated \$116 million in inland waterways diesel fuel tax revenues to be deposited into the Inland Waterways Trust Fund for FY 2021, sufficient funds should reside in the Trust Fund to support this level of funding for each of these projects and still leave an acceptable balance in the Inland Waterways Trust Fund going into the next fiscal year.

- **For FY 2021, the Administration and Congress should continue to increase the robust levels of funding provided during each of the past seven fiscal years for the Operation and Maintenance (O&M) 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 our international competitiveness. Further, this additional O&M funding is demonstrably producing the positive outcomes anticipated to result from it. As Figure 2 in Appendix D illustrates, a clear decline in unscheduled outages, the kind that are generally most disruptive and most economically damaging, is evident in recent years as additional scheduled work, which can be planned for in advance to minimize transportation disruptions, is able to be funded and performed, with the additional O&M appropriations.

- **In water resources development authorization legislation for enactment during 2020, Congress should authorize construction of the Brazos River Floodgates, Colorado River Locks, and Inner Harbor Navigation Canal (IHNC) Lock inland waterways system modernization projects.** All three projects already have completed feasibility-level study documents or, in the case of IHNC, soon will have the necessary final general re-evaluation report (GRR), in each case supporting construction of the respective project.

ACKNOWLEDGEMENTS

The Inland Waterways Users Board wishes to thank the U.S. Army Corps of Engineers for the support the Corps provides to the Board, in particular the Deputy Commanding General for Civil and Emergency Operations, Major General Scott A. Spellmon, and the Designated Federal Officer for the Board, Mr. Mark R. Pointon. The Corps division and district staff, Corps Headquarters staff, and Corps Institute for Water Resources staff have provided thorough and timely information throughout the year, which the Board greatly appreciates.

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 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 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 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 (Public Law 113-121) which, among other things, modified WRDA 86's Section 302 to amend and increase the responsibilities of the Users Board. Section 2002 of WRRDA replaced subsection (b) of the 1986 Act's Section 302 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 September 12, 2019, in Springfield, Virginia at the 92nd meeting of the Inland Waterways Users Board, the Oath of Office was administered to nine of the eleven members of the Users Board for a term of office lasting two years starting in May 2019. The Oath of Office will be administered to the remaining Board members at the next Users Board meeting to be held in 2020, that being Users Board Meeting No. 93.

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.

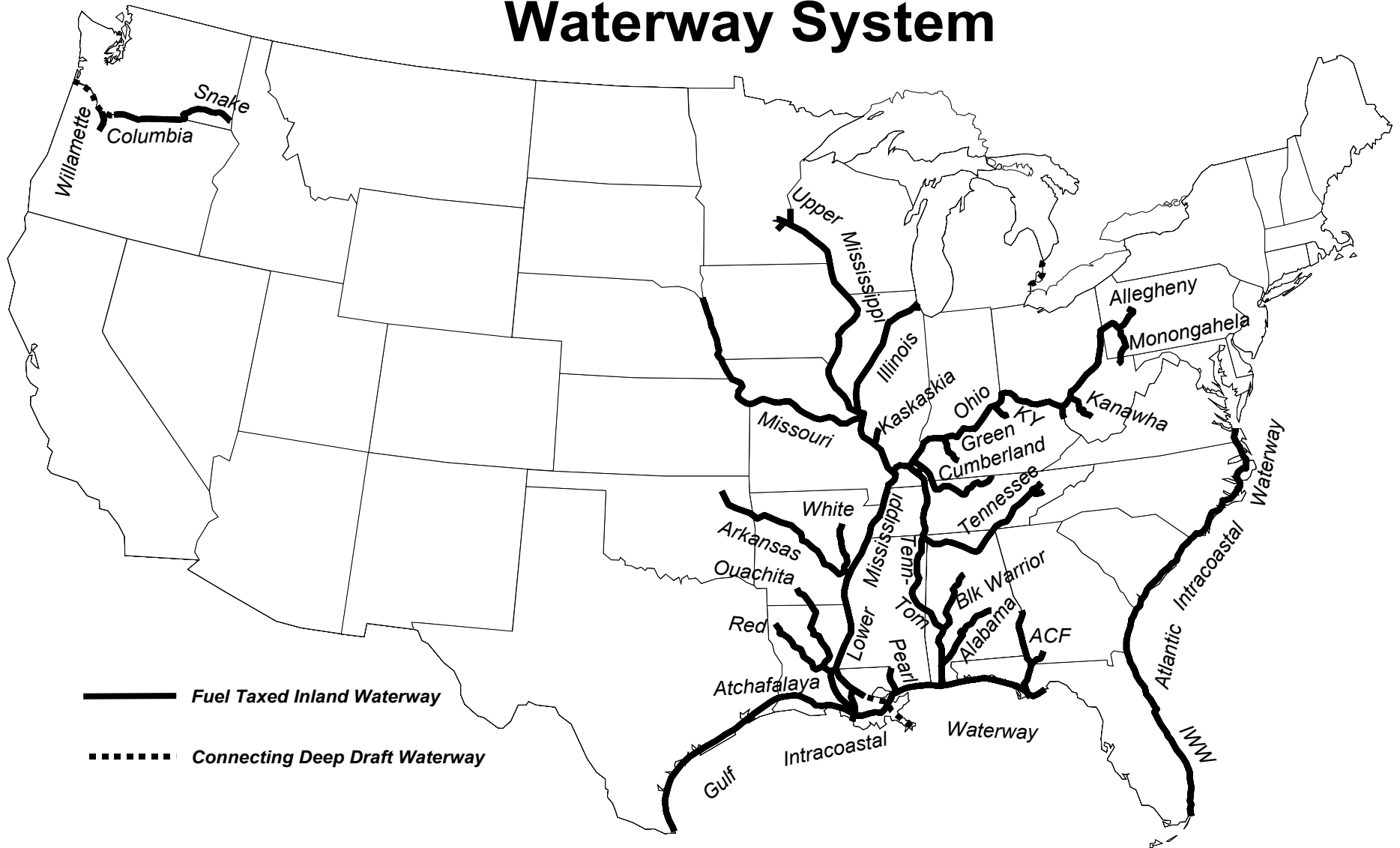
1. Alabama-Coosa Rivers: From junction with the Tombigbee River at river mile (hereinafter referred to as RM) 0 to junction with Coosa River at RM 314.
2. Allegheny River: From confluence with the Monongahela River to form the Ohio River at RM 0 to the head of the existing project at East Brady, Pennsylvania, 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



United States Department of Agriculture
Agricultural Marketing Service

Agribusiness Consulting
Agribusiness Intelligence Informa



Importance of Inland Waterways to U.S. Agriculture

Analyzing Three Investment Scenarios

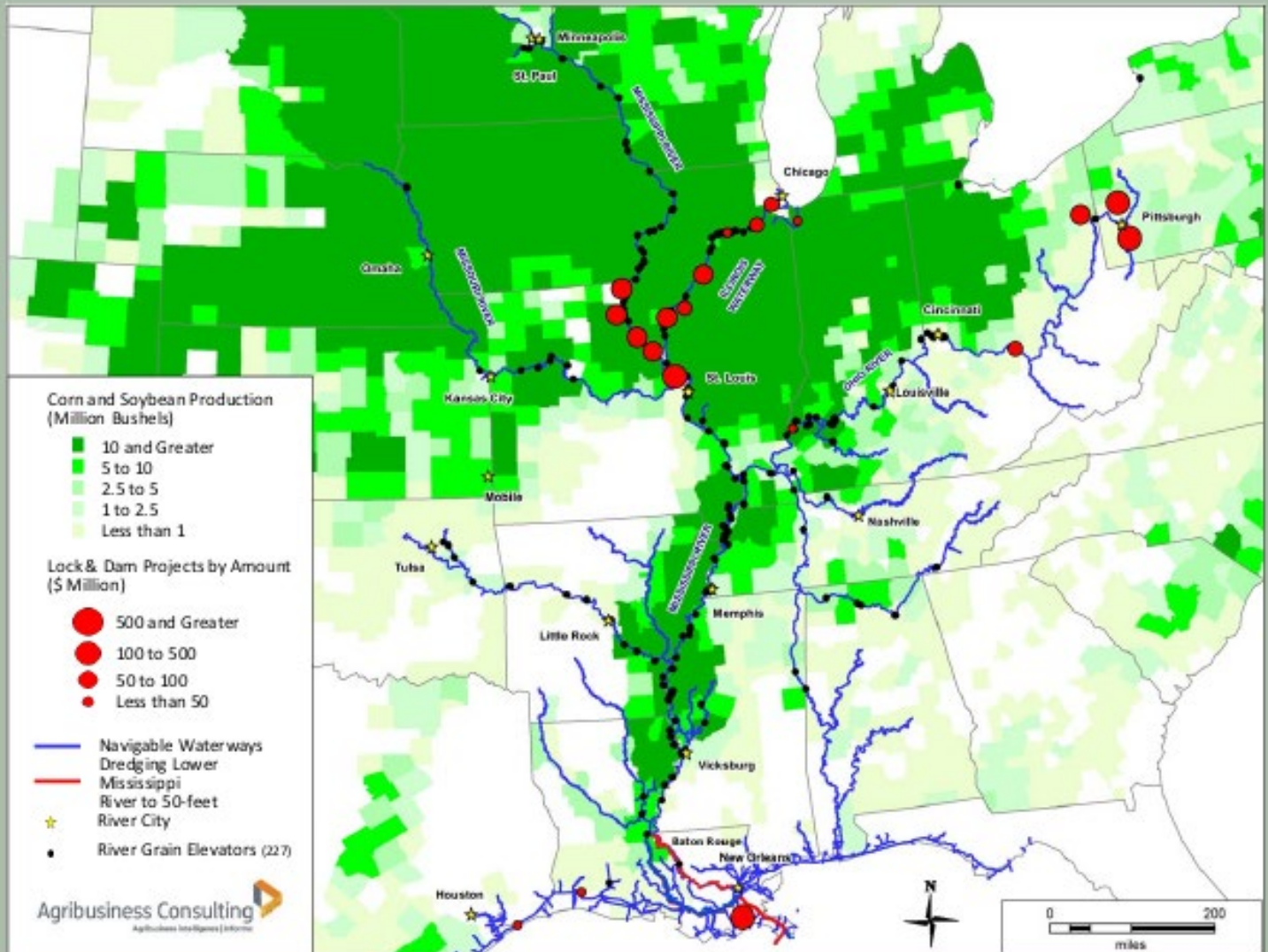
August 2019



Barge tow on Chain of Rocks Canal of
Mississippi River above St. Louis

This material was produced for the United States Department of Agriculture (USDA), Agricultural Marketing Service (AMS), through Cooperative Agreement Number 18-TMTSD-TN-0011. Informa Agribusiness Consulting (Informa) has used the best and most accurate information available to complete this study. For more information and to learn more about Informa Agribusiness Consulting, please visit AgribusinessIntelligence.com. A more detailed report can be found on USDA AMS website.

America's Heartland Requires a Reliable Transportation Corridor



Density of U.S. Corn and Soybean Production Areas in Proximity to the Navigable Waterways on the Mississippi River System Depicted in Map



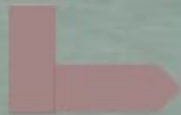
Locks and Dam 15, located in Rock Island, Illinois

U.S. Agriculture's Competitiveness Depends on Inland Waterways

Infrastructure is critical to competitiveness of U.S. farmers

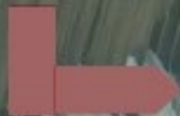
INADEQUATE INFRASTRUCTURE

Leads to lower effective transportation capacity



REDUCED TRANSPORTATION CAPACITY

Leads to higher freight rates; more dependency on truck and rail



HIGHER FREIGHT RATES

Leads to lower farm income; more road congestion; more rail service problems



LOWER FARM INCOME

Leads to lower U.S. economic activity



LOSS OF GLOBAL COMPETITIVENESS

Without infrastructure investment, the farmer is less competitive globally

The background photo depicts broken wickets at Locks and Dam 52 along the Ohio River. The Corps of Engineers replaced Locks and Dam 52 and 53 with Olmsted Locks and Dam in 2018. At the time of this photo the wickets exceeded their lifespan by nearly 40 years.

Inland Waterway Investment Grows American Economy

STATUS QUO INVESTMENT

Current funding trends continue to 2045 for new construction, major rehabilitation and performing routine maintenance (totaling \$29.6B).

Total Cumulative Economic Impact to 2045

Employment 395,000

GDP \$185 B

Sales \$354 B

INCREASED INVESTMENT

Increased funding to construct all authorized projects (\$6.3B) in 10 years, including increased funding to 2045 to rehabilitate existing locks and perform routine maintenance (totaling \$35.9B).

Total Cumulative Economic Impact to 2045

Employment 472,000
 ↑ 77,000
 ↑ 20%

GDP \$258 B
 ↑ \$72 B
 ↑ 39%

Sales \$496 B
 ↑ \$142 B
 ↑ 40%

Increase Over Status Quo:

↑ \$6.3 Billion

REDUCED INVESTMENT

Gradually decreasing funding through 2045 for operation and maintenance, leading to decreased reliability. No construction of authorized projects (totaling \$15.3B).

Total Cumulative Economic Impact to 2045

Employment 323,000
 ↓ 72,000
 ↓ 18%

GDP \$115 B
 ↓ \$70 B
 ↓ 38%

Sales \$220 B
 ↓ \$133 B
 ↓ 38%

Decrease From Status Quo:

↓ \$14.3 Billion

More Investment = More Farm Exports Less Investment = Less Farm Exports

FARM PRODUCT VOLUME

The inland navigable waterways are essential to moving farm products to grain export elevators along the Gulf.

Total Cumulative Volume Impact to 2045
(Million Tons)

Status Quo 160.8

Increased 216.7

↑ 55.9
↑ 35%

Reduced 86.4

↓ 74.4
↓ 46%

MARKET VALUE

U.S. corn and soybean farmers are the most efficient in the world. Our country's waterways and multimodal transportation network provides a competitive edge in global markets.

Total Cumulative Market Value Impact to 2045

Increased
Investment
+\$39 Billion

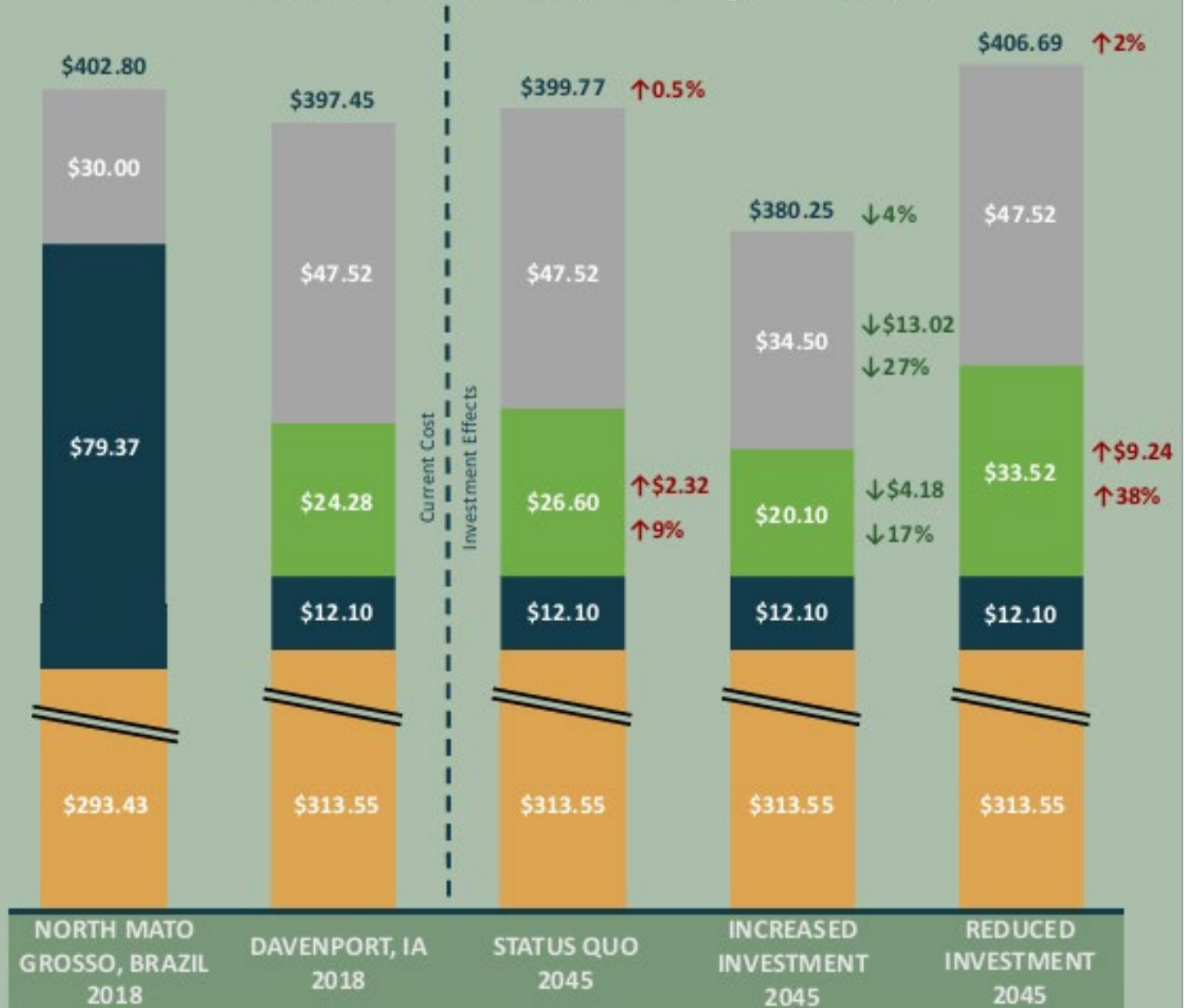
Reduced
Investment
-\$58 Billion

Range of
\$97 Billion

Increased Investment Enhances Competitiveness by Reducing Shipping Costs

SOYBEAN COST TO SHANGHAI, CHINA

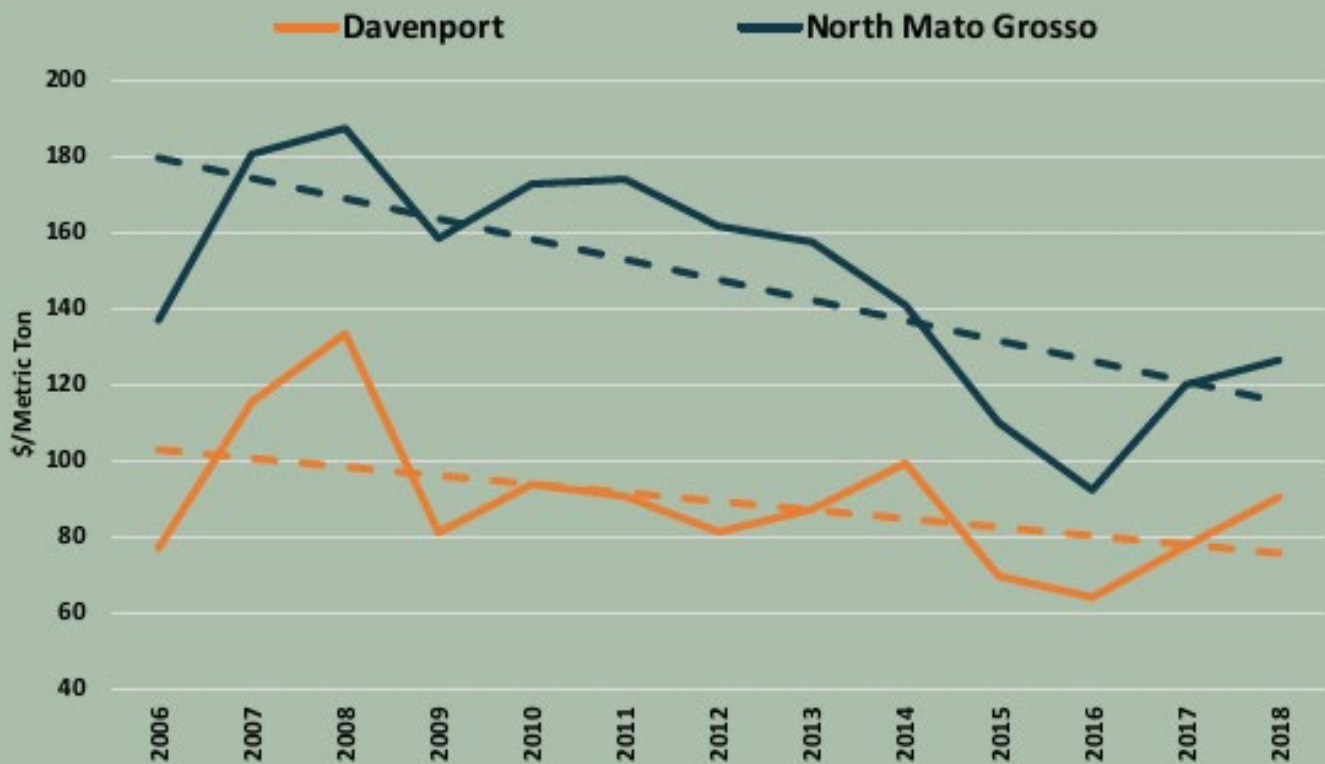
■ Farm Value
 ■ Truck
 ■ Barge
 ■ Ocean
 Units are in \$/MT



Infrastructure investment is critical for competitiveness of the U.S. farmer. Infrastructure investment leads to higher transportation capacity; higher transportation capacity leads to lower freight rates; lower freight rates lead to higher farmer returns. Without infrastructure investment, both the U.S. farmer and the American economy lose to global competitors.

Will the U.S. Retain its Competitive Advantage?

SOYBEAN TRANSPORTATION COSTS TO CHINA: U.S. vs. BRAZIL



RECENT NEWS HEADLINES

China investment in Brazil hit seven-year high in 2017

<https://www.reuters.com/article/us/brazil-investment/china-investment-in-brazil-hit-seven-year-high-in-2017-idUSKBN1F7387>

Brazil wants China to invest in its infrastructure

<https://finance.yahoo.com/news/brazil-wants-china-invest-infrastructure-194842132.html>

China to invest \$50bn in Brazil infrastructure

<https://www.bbc.com/news/business-32747454>

AMERICAN INFRASTRUCTURE IMPERATIVE

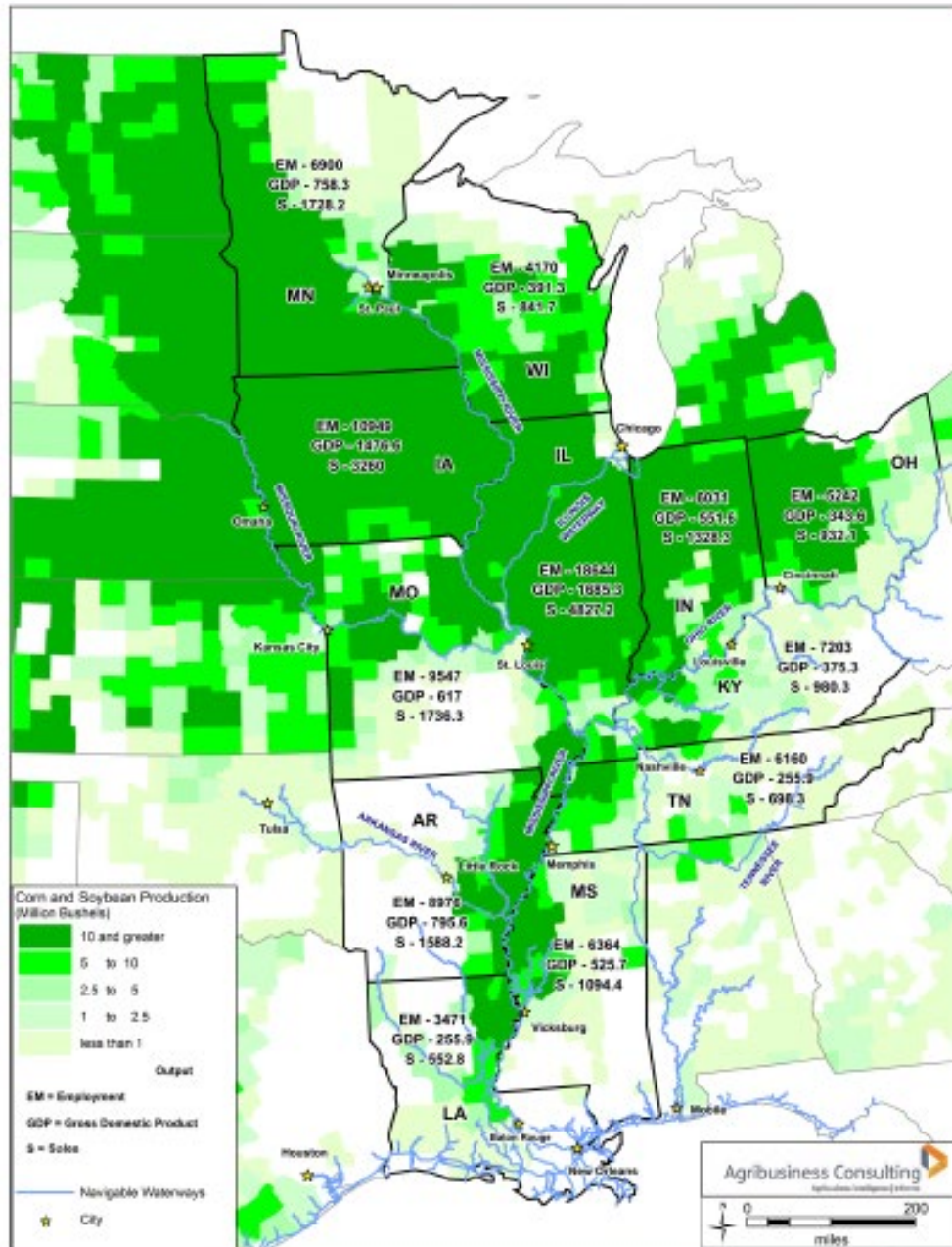
- Higher and consistent inland waterway investment is needed to ensure the long-term prosperity of U.S. agriculture
- The Navigation & Ecosystem Sustainability Program (NESP) is essential for the competitiveness of the heartland corridor – its Pre-construction Engineering & Design (PED) funding is necessary before construction can begin. Pending PED funding for NESP is time-sensitive.

Increased Investment Leads to Stronger Economy for Decades

Potential Investments	River State	River Mile	Amount (\$Million)
NAVIGATION & ECOSYSTEM SUSTAINABILITY PROGRAM (NESP) PROJECTS - AWAITING CONSTRUCTION			
LaGrange Lock	Illinois River/IL	80	\$361.3
Peoria Lock	Illinois River/IL	158	\$362.5
Upper Mississippi River Lock and Dam 20	Mississippi River/MO	343	\$326.3
Upper Mississippi River Lock and Dam 21	Mississippi River/MO	325	\$454.2
Upper Mississippi River Lock and Dam 22	Mississippi River/MO	301	\$376.6
Upper Mississippi River Lock and Dam 24	Mississippi River/MO	273	\$438.3
Upper Mississippi River Lock and Dam 25	Mississippi River/MO	241	\$548.5
PROJECTS AWAITING CONSTRUCTION			
Brazos High Island	Gulf Intracoastal Waterway/TX		\$17.6
Brazos River to Port O'Connor	Gulf Intracoastal Waterway/TX		\$22.2
Calcasieu Lock	Gulf Intracoastal Waterway/TX	63	\$16.9
Dashields Lock	Ohio River/PA	13	\$808.7
Dredging Lower-Mississippi River to 50ft	Mississippi River/LA		\$159.1
Emsworth Lock	Ohio River/PA	6	\$744.4
Inner Harbor Navigation Canal Lock	Mississippi River/LA	63	\$1,009.9
Montgomery Lock	Ohio River/PA	32	\$362.5
MAJOR REHABILITATION PROJECTS			
Brandon Road Lock	Illinois River/IL	286	\$69.2
Dresden Island	Illinois River/IL	271.5	\$50.5
Greenup Lock	Ohio River/OH & KY	341	\$55.0
J.T. Myers Lock	Ohio River/IN & KY	846	\$45.2
Starved Rock	Illinois River/IL	231	\$30.3
TJ O'Brien	Illinois River/IL	327	\$47.0
TOTAL			\$6,306

The projects and costs listed above are based on the USACE's 2016 Capital Investment Strategy

Economic Impact of Corn and Soybean Exports by State



State Economic Impact of U.S. Corn and Soybean Production Destined to Export, in Proximity to the Navigable Waterways on the Mississippi River System, 2016 Depicted in Map

Waterways Benefits by State

State	Commodity	Employment	GDP (\$ Million)	Sales (\$ Million)
Arkansas	Corn	1,171	49.1	154.8
	Soybean	7,805	746.4	1,433.4
	Total	8,976	795.6	1,588.2
Illinois	Corn	8,684	622.5	1,880.5
	Soybean	9,960	1,062.8	2,946.7
	Total	18,644	1,685.3	4,827.2
Indiana	Corn	1,654	96.8	291.6
	Soybean	4,377	454.8	1,036.7
	Total	6,031	551.6	1,328.3
Iowa	Corn	812	68.5	221.8
	Soybean	10,137	1,408.0	3,038.2
	Total	10,949	1,476.6	3,260.0
Kentucky	Corn	2,599	80.8	271.7
	Soybean	4,604	294.5	708.7
	Total	7,203	375.3	980.3
Louisiana	Soybean	3,471	255.9	552.8
	Total	3,471	255.9	552.8
Minnesota	Corn	1,317	90.4	281.9
	Soybean	5,583	667.9	1,446.4
	Total	6,900	758.3	1,728.2
Mississippi	Corn	1,129	47.7	148.1
	Soybean	5,234	478.0	946.3
	Total	6,364	525.7	1,094.4
Missouri	Corn	1,267	50.4	171.3
	Soybean	8,280	566.6	1,564.9
	Total	9,547	617.0	1,736.3
Ohio	Corn	381	16.5	49.9
	Soybean	4,861	327.2	882.2
	Total	5,242	343.6	932.1
Tennessee	Corn	1,284	34.9	102.5
	Soybean	4,876	221.1	595.7
	Total	6,160	255.9	698.3
Wisconsin	Corn	72	3.7	11.0
	Soybean	4,097	387.7	830.8
	Total	4,170	391.3	841.7

State Economic Impact of U.S. Corn and Soybean Production
Destined to Export, in Proximity to the Navigable Waterways
on the Mississippi River System, 2016 Depicted in Table

APPENDIX D



INLAND WATERWAYS USERS BOARD

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

May 10, 2019

The Honorable Nancy Pelosi
Speaker
U.S. House of Representative
H-222, Capitol Building
Washington, D.C. 20515

The Honorable Kevin McCarthy
Minority Leader
U.S. House of Representatives
H-204, Capitol Building
Washington, D.C. 20515

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

The Honorable Charles E. Schumer
Minority Leader
U.S. Senate
S-221 Capitol Building
Washington, D.C. 20510

Dear Speaker Pelosi, Leader McConnell, Leader McCarthy and Leader Schumer:

Pursuant to Section 2002(d) of the Water Resources Reform and Development Act¹ (Public Law 113-121, June 10, 2014, hereinafter referred to as WRRDA), the Inland Waterways Users Board (“Board” or “Users Board”) hereby submits its fifth annual post-budget-submission “advice and recommendations” concerning investment in the Nation’s inland waterways system. The Users Board is a federal advisory committee established more than 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.

¹ “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 —... (D) not later than 60 days after the date of submission of the budget proposal of the President to Congress, advice and recommendations to Congress regarding construction and rehabilitation priorities and spending levels.” Sec.2002(d).

Executive Summary

Again this year, the Users Board expresses its deep gratitude to the Congress for the strong level of funding support provided in recent years for the Nation's inland waterways transportation system. This Congressional leadership, in response to a series of Administration budget proposals that have been egregiously deficient, has produced remarkable progress and avoided serious degradation throughout the inland waterways system. Unfortunately, the President's Fiscal Year (FY) 2020 Budget proposal for the U.S. Army Corps of Engineers (Corps) Civil Works Program follows the ill-advised pattern of the past and proposes to significantly underfund modernization of inland waterways locks and dams. The Board hopes that Congress, as it has in the past, will reject the Administration's minimalist budget proposal for FY 2020 and, instead, continue to provide full use of Inland Waterways Trust Fund (IWTF) revenues for the construction of ongoing modernization projects and strong funding support of inland waterways operation and maintenance activities throughout the system. The Board unanimously urges Congress to maintain the progress and positive program momentum that Congress has created and toward that end offers the recommendations contained in this report for consideration.

INLAND WATERWAYS USERS BOARD RECOMMENDATIONS

- **For FY 2020, and exclusive of any additional funding that might be forthcoming in one-time “Infrastructure Investment” legislation, 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 \$115 million during FY 2020.** As explained later in this report and in our 31st Annual Report issued five months ago, this \$115 million amount is supported by the level of IWTF receipts actually experienced during the four years that the current 29 cents per gallon diesel fuel tax has been in effect and is much more consistent with actual experience than the Administration's proposed \$107 million for FY 2020.
- **For FY 2020, each of the three ongoing priority projects other than Olmsted Locks and Dam, that have not been funded thus far to construction completion should receive full and efficient funding to the maximum extent practicable, including \$111 million for the Monongahela River project, \$66 million for the Kentucky Lock Addition, and \$92 million for the Chickamauga Lock.** The Board understands that these amounts are not static and for a number of reasons may change some prior to Congress finalizing FY 2020 appropriations legislation for the Corps Civil Works Program. For example, the above-recommended amounts are similar to but slightly different than the recommended amounts we included five months ago in our 31st Annual Report. We have revised our recommendation in this report based on updated information from the Corps and to be consistent with hearing testimony recently presented to Congress by the Chief of Engineers. Also, as the Administration has proposed in the FY 2020 President's Budget request, Congress should fund from general revenues the \$24.087 million required to complete the deficiency correction at Melvin Price Locks and Dam on the Mississippi River.
- **For FY 2020, Congress should continue to increase the robust levels of funding provided during each of the past six fiscal years for the Operation and Maintenance (O&M) 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 totally consistent with the broadly-supported objective of improving our national standard of living, growing the nation's economy, and increasing our international competitiveness.

- **Significant funding for Preconstruction Engineering and Design (PED) should be provided in FY 2020 for each of three authorized priority lock and dam modernization projects: the Three Rivers Navigation Project in Arkansas, the Upper Ohio Navigation Project in western Pennsylvania, and the Navigation and Ecosystem Sustainability Program (NESP) on the Upper Mississippi River and Illinois Waterway.** While the FY 2020 President's Budget request does propose that \$1.5 million be appropriated to perform PED for the Three Rivers project, no FY 2020 PED funding is proposed for either Upper Ohio or NESP, both of which have received significant PED funding in the past. In developing the Energy and Water Development and Related Agencies Appropriations Act for FY 2020, Congress should provide additional funding to the Corps' Investigations account to ensure significant new PED funds are made available for the Upper Ohio, NESP and Three Rivers to position those projects to be ready for construction to begin as soon as future construction funding can be made available.
- **As it succeeded in doing for FY 2019, Congress should again follow "regular order" and finalize the Energy and Water Development and Related Agencies Appropriations Act for FY 2020 prior to October 1 of this year.** When annual funding legislation for the Corps is not finalized prior to the start of the fiscal year, the agency must rely on temporary funding through one or more Continuing Resolutions, as happened so often before last year's FY 2019 success. This wreaks havoc on program scheduling and performance. Rather than following a practical engineering-based timeline, project managers are required to schedule construction activity and milestones that conform to short-term appropriations, sometimes for periods of only a few weeks or months. Under these circumstances, contractors are unable to plan for efficient construction sequences. Construction projects are sometimes shut down only to be re-started during the next fiscal period. Work is suspended, workers are laid off, and construction is delayed. These artificial punctuations in construction scheduling can dramatically increase both the cost of a project and its time to completion. Private sector market forces would never allow large capital construction projects to be executed in such an unnecessary, wasteful, and entirely preventable fashion.
- **Congress should modify the cost sharing for future spending on IWTF-financed construction projects to require 25 percent of the project cost to be derived from the IWTF and the remaining 75 percent to come from General Treasury revenues.** This change recognizes that the inland waterways diesel fuel tax was increased by 45 percent to 29 cents per gallon in April 2015. Modifying the cost sharing would mirror the same cost share change that Congress made in the Water Infrastructure Improvements for the Nation Act of 2016 and the Water Resources Development Act of 2016 (Public Law 114-322) for the construction of ports to depths between 45 and 50 feet. It is a logical programmatic follow-on to the cost share change made for the Chickamauga Lock project by Congress in the FY 2019 Energy and Water Development and Related Agencies Appropriations Act (P.L. 115-244). It would eliminate the existing unintended barrier to needed infrastructure investment that the current inland waterways construction cost sharing requirement creates for future years. With this cost sharing change, there will be sufficient funds in the IWTF to continue full and efficient

funding for the ongoing inland waterways projects already under construction and to allow consideration of additional important and time sensitive projects. Adoption of the recommended change will enable annual investment in the modernization of the nation's lock and dam infrastructure to remain at or above the levels achieved since 2014 and will ensure that the schedule and efficiency successes experienced in the recent years can be maintained in the future.

Congressionally-Led Progress

For far too long, annual Administration budget submissions to Congress have proposed grossly inadequate funding levels for the modernization of locks and dams on the nation's inland waterways system. Experience over the six most recently completed federal appropriations cycles (FYs 2014 to 2019) illustrates this travesty.

Table 1, compiled by the U.S. Army Corps of Engineers (Corps), displays the FY 2014 to FY 2019 history of Administration-budget-requested amounts for Inland Waterways Trust Fund (IWTF) project construction, compared with the amounts actually appropriated by Congress each year and provided to those projects in the respective year's Corps Work Plan.

**Table 1: President’s Prior Budgets and Total Allocations for IWTF Projects
(Thousands of Dollars)**

Project	Funding Item	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	6-Year Total
Olmsted	President's Budget	\$163,000	\$160,000	\$180,000	\$225,000	\$175,000	\$35,000	\$938,000
	Total Allocation	\$165,712	\$212,710	\$268,000	\$251,000	\$175,000	\$50,000	\$1,122,422
Lower Mon 2-3-4	President's Budget	\$1,960	\$9,032	\$52,000	\$0	\$0	\$0	\$62,992
	Total Allocation	\$72,673	\$55,888	\$58,900	\$82,010	\$98,000	\$89,000	\$456,471
Emsworth	President's Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Total Allocation	\$2	(\$2,518)	\$0	\$1,000	\$0	\$0	(\$1,516)
Kentucky	President's Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Total Allocation	\$0	\$14,700	\$45,700	\$36,000	\$41,200	\$43,600	\$181,200
Chickamauga	President's Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Total Allocation	\$1,815	\$3,000	\$29,600	\$40,000	\$76,500	\$89,700	\$240,615
LaGrange	President's Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Total Allocation	\$0	\$0	\$0	\$0	\$10,000	\$57,500	\$67,500
Total	President's Budget	\$164,960	\$169,032	\$232,000	\$225,000	\$175,000	\$35,000	\$1,000,992
	Total Allocation	\$240,202	\$283,780	\$402,200	\$410,010	\$400,700	\$329,800	\$2,066,692
	Additional Funding	\$75,242	\$114,748	\$170,200	\$185,010	\$225,700	\$294,800	\$1,065,700

Over the course of this six-year period, the total amount requested in Administration budget proposals to construct IWTF projects was \$1.001 billion, an average of a little less than \$167 million per year. Almost 93 percent of the total Administration request, \$938 million, was for a single project, Olmsted Locks and Dam on the Ohio River.

Congress rejected the Administration-proposed levels for each year in the six-year period, more than doubling IWTF project investment by appropriating the requested \$1.001 billion plus a total of \$1.065 billion in additional funds for the IWTF projects and increasing in each successive year the amount being added to that year’s deficient Administration budget request for these projects. For the last four years (FY 2016-FY 2019) of the six-year period, it was evident the particularly strong level of Congressional appropriations was made possible by full-year collection of the 45 percent increase in the inland waterways diesel fuel tax, made effective mid-FY 2015, and from cost share re-alignments made for the Olmsted and Chickamauga projects.

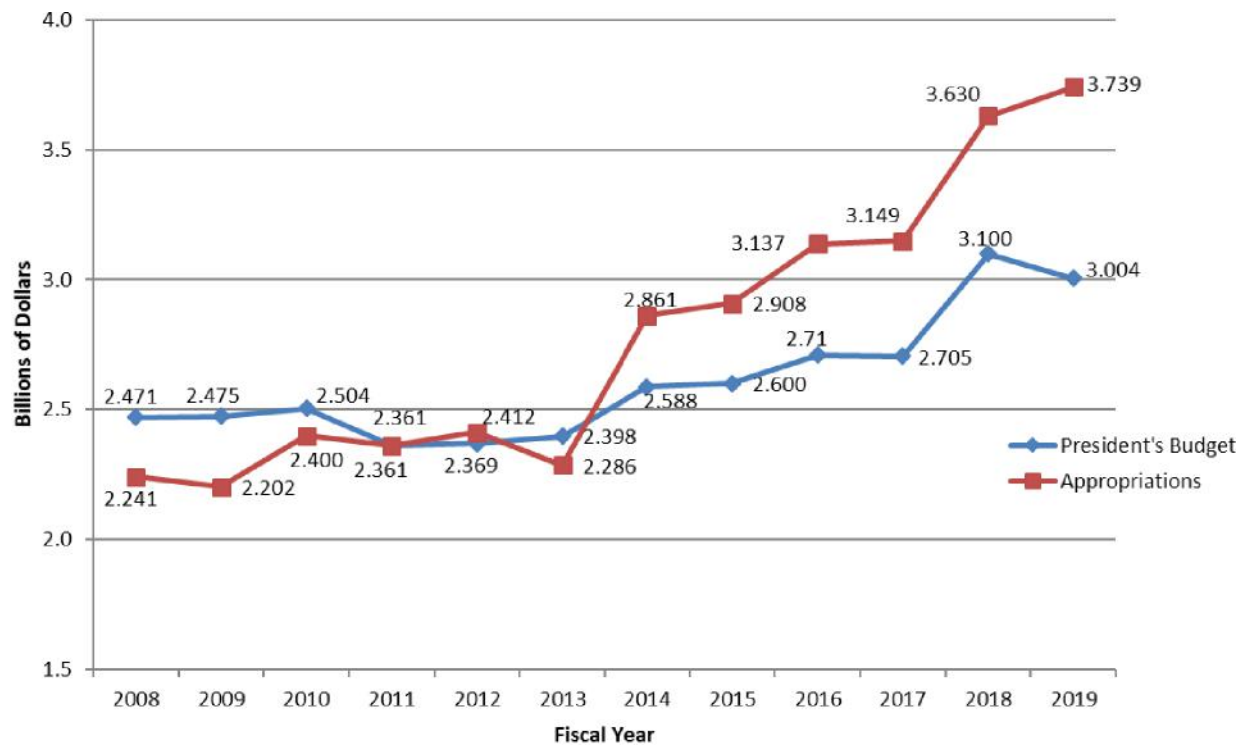
Adhering to the Administration spending prescriptions for these six years would have produced significant adverse consequences for the inland waterways system and the nation’s economy. Examples of some of those adverse consequences include:

- Instead of being operational today, as Olmsted is -- four years ahead of the schedule laid out in the project's post-authorization change report (PACR) and hundreds of millions of dollars below the PACR cost estimate -- Olmsted would still require at least \$183 million in FY 2020, and probably much more -- and at least another year or longer for the project to become operational and able to replace the failed Lock and Dam (L&D) 52 project and the failing L&D 53 project on the Ohio River.
- Four of the six years would have seen little or no funding for the Monongahela River Locks and Dams 2-3-4 Replacements (Lower Mon) project near Pittsburgh, Pennsylvania. Instead only \$111 million is required to fund the project's construction completion in FY 2020. Without the funding received, \$394 million in achieved construction progress would have been lost, adding at least four years to the Lower Mon's completion date and at least \$164 million in project cost increases on top of the \$394 million in lost construction progress.
- Instead of the \$179.5 million allocated to the project because of additional funding appropriated by Congress, the Kentucky Lock project on the Tennessee River would have received no funding during any of the six years, causing enormous economic turmoil and economic damage to the construction workforce and local economy, adding hundreds of millions of dollars to the costs needed today to complete construction of the project, and delaying by at least six years the date that the project could begin delivering to the national economy the economic benefits the project is designed to deliver.
- Like the Kentucky Lock project, the Chickamauga Lock project would have been zero-funded for all six years during this period, delaying the project's completion until at least 2030, adding \$240 million plus inflation-caused tens of millions of dollars to today's estimate of the delayed project's remaining cost, and further risking the closure of the entire upper reach of the Tennessee River if the crumbling concrete at the existing lock were to cause a catastrophic project failure.
- The major rehabilitation of the 80-year-old LaGrange Lock and Dam on the Illinois Waterway, the nation's top-priority lock and dam major rehabilitation project, would remain unfunded and not started instead of being on its current schedule to be completed next year.
- Each year that a project's construction completion was delayed, the nation's economy would lose the national economic development (NED) benefits that project was built to deliver, such as Olmsted's Corps-calculated \$640 million estimated average annual net NED benefits and Lower Mon's \$220 million estimated average annual net NED benefits.

Fortunately, Congress did not follow the Administration spending prescriptions for making capital investments in the modernization of the nation's lock and dam infrastructure.

Nor during the six-year FY 2014 to FY 2019 timeframe did Congress limit the funding provided for Corps Operation and Maintenance (O&M) activities to the amounts recommended in proposed Administration budgets. Figure 1 depicts the relationship between Administration-requested Operation and Maintenance account funding levels and amounts actually appropriated by Congress for FY 2019 and each of the previous 11 fiscal years.

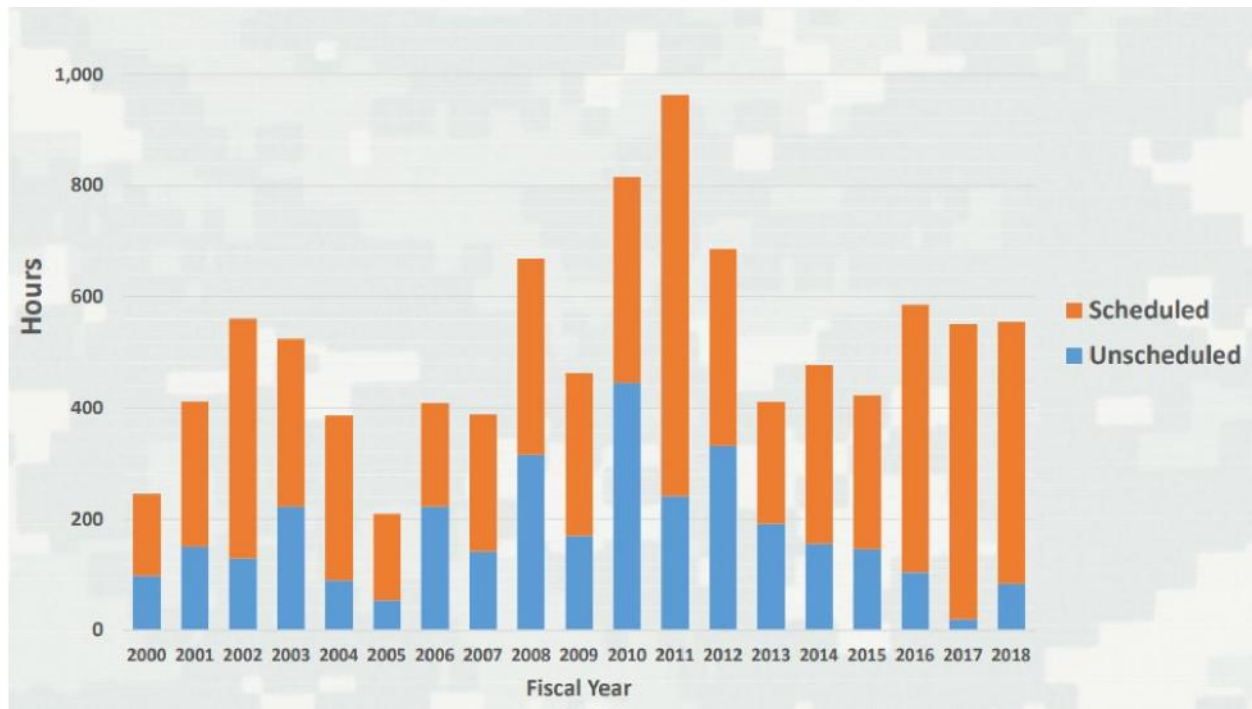
**Figure 1: Annual Funding for the Operations and Maintenance Account
Fiscal Years 2008-2019**



After showing relatively flat Administration funding requests in the early years of the 11-year period, Figure 1 illustrates a recent Administration awareness of the growing Corps Civil Works Program's O&M need, reflected in the upward-trending budget requests of the six-year FY 2014-FY 2019 timeframe. More importantly, Figure 1 shows that, in each of the six most recent annual appropriations cycles, Congress has significantly increased the amount it has appropriated for O&M, providing ever-increasing record-level funding for the Corps O&M account, culminating with a \$3.739 billion O&M appropriation for the current fiscal year.

Not surprisingly, this additional Congressionally-appropriated funding appears to be making a significant positive impact. Figure 2, which was included in a mid-February presentation by the Corps to waterways industry representatives, tracks lock main chamber unavailability due to mechanical problems. A clear decline in unscheduled outages, the kind that are generally most disruptive and most economically damaging, is evident in recent years as additional scheduled work, which can be planned for in advance to minimize transportation disruptions, is able to be funded and performed.

Figure 2: National Lock Portfolio Service Trends
Main Chamber Mechanical Unavailable Hours
(Events Longer than 1 Day)



President's Budget Proposal for Fiscal Year 2020

On March 11, 2019, the Administration announced the broad outline of its proposed federal budget for FY 2020, followed by the release the next day of the programmatic and project-specific proposals for the Corps Civil Works Program, and, on March 18th, by the publication of the FY 2020 Budget Appendix providing additional detailed information on the various appropriations accounts and funds that constitute the budget. Table 2 below provides a prior-year comparison at the appropriation account level of the Trump Administration's detailed FY 2020 proposed budget for the Corps Civil Works Program.

Table 2: FY 2020 Corps Civil Works Program Budget Request Comparison
(Millions of Dollars)

	FY 2019 Request	FY 2019 Enacted	FY 2020 Request	FY 2020 Request vs FY 2019 Request	FY 2020 Request vs FY 2019 Enacted
Investigations	82.0	125.0	77.0	5.0 (-6.1%)	48.0 (-38.4%)
Construction	876.1	2183.0	1,170.2	294.1 (+33.6%)	1,012.8 (-46.4%)
[Inland Waterways Trust Fund]	[35.0]	[329.8]	[111.0]	[76.0 (+117.1%)]	[218.0 (-66.3)]
Mississippi River & Tributaries	244.7	368.0	209.8	34.9 (-14.3%)	158.2 (-43.0)
Operation and Maintenance	3,042.0	3,739.5	2,895.4	146.6 (-4.8%)	844.1 (-22.6%)
[Harbor Maintenance Trust Fund]	[965.1]	[1,613.0]	[965.0]	-	[648.0 (-40.2%)]
Other*	539.0	583.0	474.6	64.4 (-11.9)	108.4 (-18.6%)
TOTAL	4,784.1	6,998.5	4,827.0	42.9 (+0.9%)	2,171.5 (-31.0%)

*Regulatory, Expenses, Flood Control & Coastal Emergencies, Formerly Utilized Sites Remedial Action Program (FUSRAP), and Assistant Secretary of the Army (Civil Works) (ASA (CW))

The FY 2020 President's Budget proposal for the Corps Civil Works Program is very similar to the President's Budget proposed Civil Works Program for FY 2019, which Congress resoundingly rejected on a bicameral, bipartisan basis. The President's FY 2020 Budget proposes a 31 percent cut in the overall Civil Works Program compared to the \$6.999 billion that Congress appropriated for the current fiscal year. The Construction account is particularly hard hit experiencing more than a billion dollar reduction, 46.4 percent below the FY 2019 enacted appropriations. Within the Construction account, funding for lock and dam modernization projects is proposed to be cut by an even-more-extreme 66.3 percent from the \$329.8 million appropriated by Congress in FY 2019. Worse, the FY 2020 President's Budget proposal funds only one ongoing lock and dam modernization construction project, (Monongahela River Locks and Dams 2-3-4 Replacements) and leaves two other ongoing projects (Kentucky Lock Addition and Chickamauga Lock) with no additional funding in FY 2020 and in serious and wasteful danger of being shut down, resulting in entirely preventable job loss and economic damage. The Corps reported during the February 2019 meeting held in Galveston, Texas that the Kentucky Lock project has had \$585.7 million appropriated and allocated to construction of the project through and including FY 2019, while Chickamauga Lock has received \$421.6 million for its construction. With funds available in the Inland Waterways Trust Fund, as is the case, the Administration's proposed zero-funding for these two projects in FY 2020 makes no sense in the Board's view and should not be followed.

The President's FY 2020 Budget request does include proposed construction account funding for one other lock and dam navigation project, which the Users Board supports. A deficiency correction, at full federal expense, is proposed for Mel Price Locks and Dam on the Mississippi River near Alton, Illinois, to rectify uncontrolled seepage being experienced at nearby Wood River Levee, which was originally authorized as a flood risk management structure but has now been integrated into the Mel Price navigation project as a saddle dam to ensure operating pool is maintained. The Board's support for the \$24.087 million Mel Price under-seepage-control project is based on the Board's understanding that, because it is a deficiency correction, all of the necessary funds will be derived from general revenues and not the Inland Waterways Trust Fund.

Inland Waterways Trust Fund

In our 31st Annual Report, the Users Board recommended that Congress base appropriations for IWTF projects in FY 2020 on the assumption that \$115 million will be deposited into the IWTF during FY 2020. More than half-way through FY 2019 now, the Board continues to be comfortable with that recommendation.

Table 3 summarizes the IWTF receipts as reported by the U.S. Treasury Department for the first six months of the current fiscal year, compared to Treasury-reported receipts for the same six-month period for each of the previous three fiscal years. Those previous three years were the first to reflect full-year collection of the 45 percent increase in the inland waterways diesel fuel tax -to 29 cents per gallon -- that went into effect April 1, 2015.

Table 3: Inland Waterways Trust Fund Revenues (millions of dollars)

	FY 2016	FY 2017	FY 2018	FY 2019
Diesel Fuel Tax	\$57.228	\$51.040	\$54.428	\$56.527
Interest	\$0.074	\$0.179	\$0.555	\$1.803
6-Month Total	\$57.302	\$51.219	\$54.983	\$58.330

As indicated in the table, FY 2019's six-month revenue total is higher than the total for the comparable six-month period during each of the preceding three years, and appreciably higher for the past two years (13.9 percent higher than FY 2017 and 6.1 percent higher than FY 2018). The 12-month IWTF receipt totals for FY 2016 through FY 2018 were, respectively, \$111.1 million for FY 2016, \$114.4 million for FY 2017, and \$116.8 million for FY 2018. Thus, with FY 2019's highest-so-far six-month receipt total of \$58.33 million, the Board believes a full-year estimate of \$115 million for FY 2020 continues to be a reasonable and conservative estimate on which to base IWTF project appropriations decisions for FY 2020.

The Users Board continues to observe with concern the trend that has manifested itself in recent years of annual IWTF revenue assumptions contained in proposed Administration annual budgets that consistently and increasingly underestimate IWTF diesel tax revenues for budget proposals. Table 4 illustrates this troubling situation.

Table 4: Administration-Proposal IWTF Receipt Assumptions Compared to Actual Performance (millions of dollars)

	FY 2016	FY 2017	FY 2018	FY 2019
Administration	\$107.0	\$106.0	\$105.0	\$105.0
Actual	\$111.1	\$114.4	\$116.8	\$115.0 (est)

The Users Board believes that reliance on the Administration's consistently-too-low IWTF annual revenue estimates would lead to unnecessary under-investment in the inland waterways system's modernization and recommends against such reliance.

Noteworthy

Olmsted Locks and Dam. Late last year, the Corps reported and the Users Board included in our 31st Annual Report of December 2018 the good news that the funding Congress provided to the Corps for FY 2019 was expected to be sufficient to complete construction of the Olmsted project in the next few years. The expectation was based on continued favorable construction weather during FY 2019. Unfortunately, Mother Nature has not cooperated. Like many other regions throughout the nation, unusually wet weather has persisted within the Ohio River Basin such that, as the Corps reported at the Users Board meeting held in February in Galveston, “we have basically been shut down on the Olmsted project since last September,” effectively losing four months of the anticipated construction season. As of the publication date of this 60-day report, the Corps is reviewing project plans, work schedules, and funding requirements. While at the Users Board meeting, the Corps reported that, despite the weather-related setbacks, “things are looking very good to complete Olmsted this year...the project 100 percent complete, the Lock and Dam 53 demolition effort completed this year.” The Users Board is aware of the possibility that some additional funding may be needed beyond FY 2019 to complete the project and will be monitoring that situation closely as the year unfolds. A possible source of funding to cover the additional needs could be the proceeds from the disposition of Olmsted construction equipment no longer needed for the project. The process to dispose of this equipment is in progress in accordance with applicable regulations. The Corps reported at the meeting in Galveston that they expect to see between \$15 and \$25 million resulting from the disposition of Olmsted’s excess equipment.

Capability Versus Efficient Funding. In referring to project-specific funding requirements, depending on the appropriations cycle, the Corps in the past has used different terms to communicate to Congress, the Users Board, and others how much new funding was needed by individual projects in the applicable fiscal year. This has led to some confusion over time and occasionally imprecision among parties discussing the amount of funds to have appropriated for specific projects. In Galveston, it was explained to the Board that “capability funding” is the amount of money the Corps can spend in a given fiscal year, essentially the amount required to fully fund a construction contract. “Efficient funding,” on the other hand looks at the critical path of a project, typically breaking a construction contract into pieces and only funding those portions/options that a contractor can actually execute in that year. Capability funding conceptually provides more contractor flexibility and increases the prospect of delivering the associated work ahead of schedule and at a lower cost, but it can tie up the contract’s appropriated funds for a longer period of time and lead to higher carry-over of unspent funds from one fiscal year to the next. Efficient funding often is a lower amount than full funding but, because it’s less flexible, can lead to delays and cost increases when unanticipated construction “hiccups” occur. The Board believes that it would be productive for the Corps to be tasked with examining the advantages and disadvantages of the two approaches and reporting to Congress on which approach is most likely to deliver these lock and dam modernization projects on time and within budget.

Great Lakes and Ohio River Division (CELRD) Budget Request Trial. At the Board meeting in Galveston, the Corps reported that the Great Lakes and Ohio River Division (CELRD) is planning on changing on a trial basis the way it budgets for lock and dam modernization project construction for CELRD projects in the FY 2020 Work Plan and the FY 2021 budget request. The

change as described proposes to fully fund options or contracts but to only include project contingencies at the 50 percent confidence level as opposed to the 80 percent confidence level currently being used. Additionally, the change would only request one year's worth of labor for engineering and design (E&D) and supervision and administration (S&A) instead of the current practice of requesting the entire amount of E&D and S&A for the duration of the contract. Such changes according to the Corps will result in less money being requested for these projects and less unobligated funds being carried over from one fiscal year to the next, hopefully without adversely affecting actual construction schedules or costs for the projects as the Corps arguably makes better use of the reprogramming authority it has been granted to optimize construction of all three ongoing CELRD projects (Mon River, Kentucky, and Chickamauga). While the Users Board applauds the stated objective of better using available funding to construct these projects, the Board also notes that all-too-frequent project construction delays and cost increases have typically been the result of the Corps having too little, not too much, project funding. The Board believes that, if Congress agrees with these changes, very close oversight should occur to ensure the changes are truly helping and not hurting Corps project delivery performance.

New Construction Projects. “The Users Board believes it is imperative that necessary preconstruction engineering and design (PED) funding be provided in FY 2020 and beyond for three lock and dam modernization projects that can be initiated as soon as construction of the ongoing projects is completed and construction funding for the new projects can be made available. The FY 2020 President’s Budget request proposes funding PED for only one new lock and dam modernization project, the Three Rivers project at the intersection of the Arkansas, White, and Mississippi Rivers. Additional funding should be added to the \$77 million President’s Budget request for the Corps Investigations account so that PED for two other inland waterways system modernization projects -- the Upper Ohio Navigation (Upper Ohio) project in western Pennsylvania and the Navigation and Ecosystem Sustainability Program (NESP) on the Upper Mississippi River and Illinois Waterway -- can continue. Both Upper Ohio and NESP have received significant PED funding in the past and are strongly supported candidates for construction new starts as the ongoing lock and dam modernization projects reach construction completion in the next few years. Further, providing PED funding for all three projects in the FY 2020 Energy and Water Development and Related Agencies Appropriations Act (E&WD Act) would be entirely consistent with the direction provided to the Corps in the conference report accompanying the FY 2019 E&WD Act “to take the preparatory steps necessary to ensure that new construction projects can be initiated as soon as can be supportedas ongoing projects approach completion.”

Project Cost Reduction Progress. The Users Board is pleased to note the significant progress the Corps has made in recent years to expedite and lower the cost of constructing lock and dam modernization projects on the inland waterways system. Much of this progress has resulted from action by the Congress to increase funding for these important projects, as discussed earlier in this 60-day report. Previous Users Board reports have highlighted the dimension of that progress for the Olmsted project. In Galveston, the Corps briefed the Users Board on substantial cost savings, amounting to more than \$1.1 billion, identified through an in-depth value engineering review for construction of the Upper Ohio Navigation project. Significant savings are also targeted for the Kentucky Lock and Chickamauga Lock projects. The Corps is to be commended and the Congress deeply thanked for helping to make this progress a reality.

Sincerely,

Inland Waterways Users Board

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Jefferson, Indiana

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Mr. David Konz
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APPENDIX E

Congress of the United States

Washington, DC 20510

April 4, 2019

Dear Chairs Alexander and Kaptur and Ranking Members Feinstein and Simpson:

As you prepare the Senate and House Fiscal Year (FY) 2020 Energy and Water Development Appropriations bills, we respectfully request that you include report language that supports the Navigation and Ecosystem Restoration Program (NESP) and urges the U.S. Army Corps of Engineers (Corps) to move forward with preconstruction engineering and design (PED) of the Upper Mississippi River and Illinois Waterway System projects authorized in Title VIII of the Water Resources Development Act of 2007 (PL 110-114).

Our nation's water infrastructure plays a critical role in maintaining our competitiveness in the global economy by ensuring the safe and efficient movement of goods to market, but the current backlog of outstanding water infrastructure projects pending before the Corps is putting that competitiveness at risk. Congress recognized the importance of modernizing our water infrastructure when it authorized NESP in 2007. NESP is an important, dual-purpose program that allows the Corps to address both navigation and ecosystem restoration in an integrated approach that will result in the expansion of seven outdated locks along the Upper Mississippi and Illinois Rivers. Unfortunately, despite NESP's importance to our inland waterways system, few steps have been taken by the Corps to implement NESP since 2012.

To illustrate the broad bipartisan support in Congress for NESP and to urge the Corps to provide the funding needed to advance PED for the program, we request the inclusion of the following report language in the FY 2020 Energy and Water Appropriations bills:

The Committee recognizes the importance of advancing the Navigation and Ecosystem Sustainability Program (NESP) for the Upper Mississippi region and our nation's economy. As such, we urge the Corps to provide the appropriate preconstruction engineering and design (PED) funding needed to advance the projects authorized in Title VIII of the Water Resources and Development Act of 2007 (P.L. 110-114). Congress has already appropriated more than \$62 million in PED funding for this program, and the Committee recommends continued funding for PED this year in order for the program to receive new start construction funding as soon as such funding becomes available.

We urge full consideration of this critical language directing the Corps to move forward with PED for NESP. Thank you for your time and consideration of this important request.

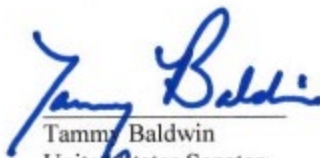
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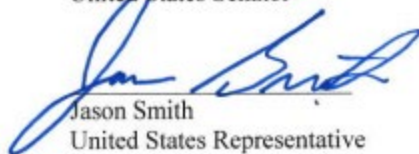


Richard J. Durbin
United States Senator



Roy Blunt
United States Senator


Tammy Baldwin
United States Senator


Jason Smith
United States Representative

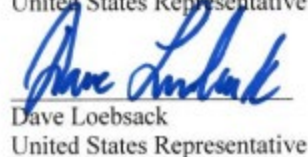

Tammy Duckworth
United States Senator


Amy Klobuchar
United States Senator


Tina Smith
United States Senator



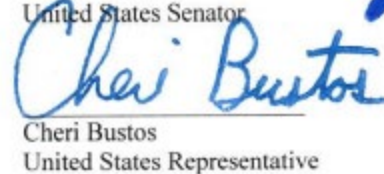
Bradley S. Schneider
United States Representative


Dave Loebsack
United States Representative


Wm. Lacy Clay
United States Representative


Sean Casten
United States Representative


Chuck Grassley
United States Senator

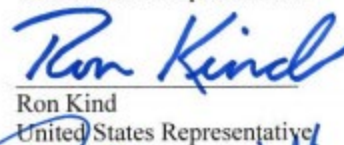

Cheri Bustos
United States Representative


Marsha Blackburn
United States Senator

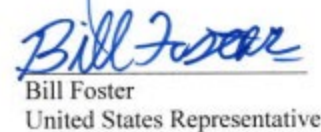

Josh Hawley
United States Senator


Bill Cassidy
United States Senator


Mike Quigley
United States Representative


Ron Kind
United States Representative


Robin Kelly
United States Representative


Bill Foster
United States Representative



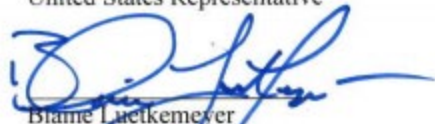
Mike Bost
United States Representative



Daniel W. Lipinski
United States Representative



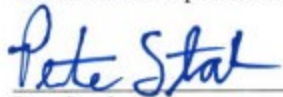
John Shimkus
United States Representative



Blaine Luetkemeyer
United States Representative



Abby Finkenauer
United States Representative



Pete Stauber
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Gwen Moore
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Angie Craig
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Jesus G. "Chuy" Garcia
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Raja Krishnamoorthi
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Bobby L. Rush
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Darin LaHood
United States Representative



Sam Graves
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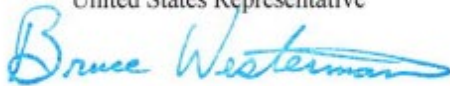
Ilhan Omar
United States Representative



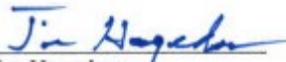
Bryan Steil
United States Representative



Tom Emmer
United States Representative



Bruce Westerman
United States Representative



Jim Hagedorn
United States Representative



Rodney Davis
United States Representative



Jim Cooper
United States Representative



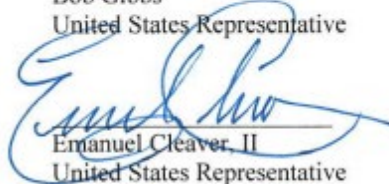
Lauren Underwood
United States Representative



Rick Crawford
United States Representative



Bob Gibbs
United States Representative



Emanuel Cleaver, II
United States Representative



James Comer
United States Representative



Glenn Grothman
United States Representative



Mike Gallagher
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