

July 7, 2020

Inland and Intracoastal Waterways: Primer and Issues for Congress

The federal government improves and maintains a system of 12,000 miles of inland and intracoastal waterways with over 200 lock and dam chambers. This system facilitates the interstate movement of commercial cargo by barge. Commercial navigation on these waterways annually moves over 500 million tons of commodities, including petroleum products, farm inputs (e.g., fertilizer), coal, and grains—accounting for 4% to 5% of total commercial tonnage shipped in the United States. High-value cargo in containers rarely moves on the inland or intracoastal waterways.

Most of the waterways are rivers (e.g., Mississippi River and its tributaries) or along coasts located in the central and eastern half of the conterminous United States. Although these waterways are a relatively small part of the nation's freight transportation network, they are an important transportation route in some regions. Other waterway stakeholders include recreational boaters (the dominant traffic on the Atlantic Intracoastal Waterway), entities that have special equipment transport needs (e.g., nuclear power facilities), and municipal water suppliers with water withdrawals near locks and dams. Policy issues for Congress include options for paying for inland and intracoastal waterways work and the effectiveness of investments for sustaining system reliability.

Waterway Appropriations

Each year, Congress appropriates funds for the U.S. Army Corps of Engineers (USACE) to perform construction and operations and maintenance (O&M) work on 12,000 miles of the nation's waterways. For FY2020, Congress appropriated \$1.29 billion for this work, with \$1.16 billion coming from the general fund of the Treasury and \$131 million from the Inland Waterways Trust Fund (IWTF) (see **Table 1**). Congress typically approves the funding as part of the discretionary spending provided in an Energy and Water Development appropriations act but also has on occasion authorized supplemental funding for waterways. For more on USACE funding, see CRS In Focus IF11462, *Army Corps of Engineers: FY2021 Appropriations*.

Construction and the Trust Fund

Since 1986, Congress generally has required that waterway construction and major rehabilitation be paid with 50% of the funds coming from the general fund and 50% from the IWTF. The IWTF receives collections from a fuel tax on commercial vessels using the 11,000 miles of waterways designated in law (**Figure 1**). In 2014, P.L. 113-121 made the general fund the sole source for waterway rehabilitation

costing less than \$20 million. Also, in 2014, P.L. 113-295 increased the fuel tax from \$0.20 to \$0.29 per gallon.

Table 1. USACE Inland and Intracoastal Waterways Spending

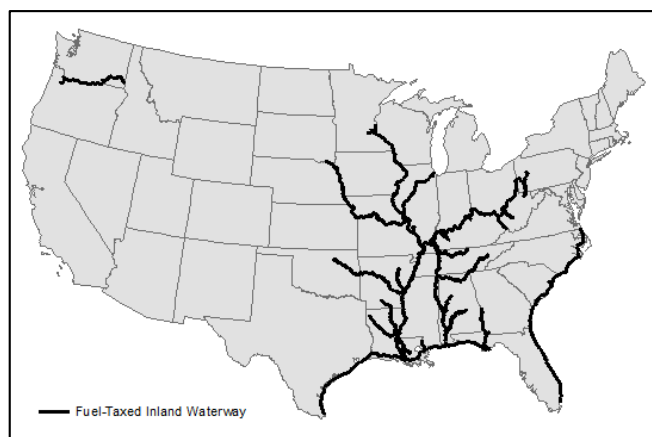
(\$ in millions)

USACE Account	FY2019	FY2020
Investigations	\$14	\$26
Construction	\$330, of which \$116 from IWTF	\$389, of which \$131 from IWTF
O&M	\$836	\$815
MR&T	\$68	\$60
<i>Total</i>	<i>\$1,248</i>	<i>\$1,290</i>

Source: CRS, based on 33 U.S.C. §2212 and USACE funding data.

Notes: O&M = Operations and Maintenance. MR&T = Mississippi River & Tributaries account; pays for lower Mississippi River Basin channel stabilization, which supports barge navigation. Construction account funds new waterway construction and rehabilitation work.

Figure 1. Inland and Intracoastal Waterways Subject to Federal Commercial Vessel Fuel Tax



Source: CRS based on USACE data and 33 U.S.C. §1804.

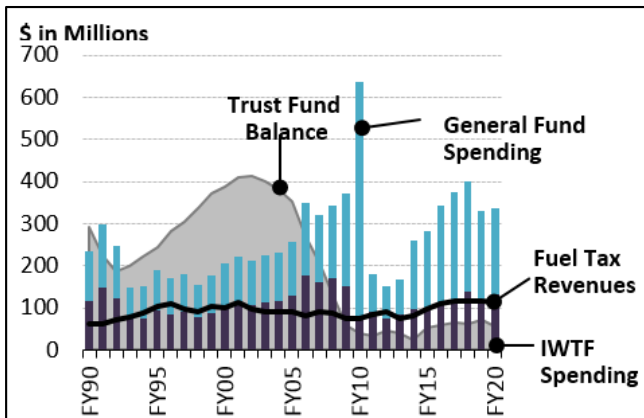
Note: Alaska and Hawaii have no fuel-taxed waterways.

Since FY2014, Congress has reduced the IWTF-required portion of funds for specific projects (e.g., 35% from IWTF and 65% from the general fund for Chickamauga Lock, TN, in FY2020), thereby increasing general fund outlays for waterway improvements by more than \$440 million over the period from FY2014 through FY2020 (**Figure 2**). For FY2020, the Administration estimated inland waterway tax collections of \$114 million and an IWTF balance of \$55 million at the end of FY2020 (**Figure 2**).

System Investment Strategy

Congress has authorized more construction and rehabilitation work on inland waterways than can be accomplished in the near term within current spending baselines. Some waterway projects have had construction interrupted in the absence of federal funds; others experienced multifold increases in costs above initial estimates. The Transportation Research Board’s 2015 report, *Funding and Managing the U.S. Inland Waterways System: What Policy Makers Need to Know*, concluded that the system critically needed a plan for maintaining system reliability and performance that ensured efficient use of limited navigation resources.

Figure 2. Waterway Construction Funding Trends, FY1990-FY2020



Source: CRS using USACE data, including Budget Appendices.

Notes: FY2009 and FY2010 reflect American Recovery and Reinvestment Act of 2009 (P.L. 111-5) funding and its waiver of the Inland Waterways Trust Fund (IWTF) contribution.

Pursuant to P.L. 113-121, USACE released a Capital Investment Strategy in 2016. The 20-year strategy focuses on improving priority waterway assets through replacement or rehabilitation of waterway infrastructure for FY2016-FY2021 and for FY2022-FY2035. USACE is developing the required five-year update and strategic review, and it expects to complete the update and review in 2020. It is uncertain whether the update will adjust investment strategies and priorities to reflect changes in demand for waterway transport or will alter the evaluation of investment options, such as whether to build a new lock, rehabilitate an existing lock, or increase system maintenance.

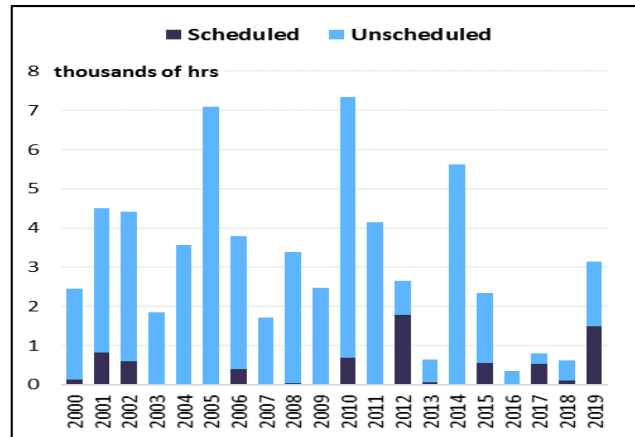
System Reliability and Maintenance

A primary concern for many commercial waterway users is the potential for reduced system reliability. Lock closures can be disruptive and costly for shippers. For example, shippers were affected by a three-week Bonneville lock closure on the Columbia River in September 2019.

USACE has reported that by some measures, the condition of the system has improved. For example, **Figure 3** shows the cumulative unavailable hours for seven of the busiest locks as measured by tonnage. During the 2015-2019

period, these locks were closed 37% of the time for planned maintenance and 63% of the time for unscheduled maintenance. Unscheduled maintenance required less than 5,000 hours of closure (compared with almost 18,000 hours in the 2010-2014 period, see **Figure 3**). In 2018, in *Inland Waterways: Actions Needed to Increase Budget Transparency and Contracting Efficiency*, the Government Accountability Office (GAO) found that USACE lacked an approach for tracking deferred maintenance, which limited USACE’s ability to manage its maintenance efforts and communicate maintenance information to Congress.

Figure 3. Total Unavailable Hours for Seven High-Traffic Locks



Source: CRS using USACE data on Mississippi River Locks 25, 26, 27; Illinois Waterway Peoria and LaGrange Locks; and Ohio River Smithland and Newburgh Locks.

Issues for Congress

As Congress considers federal investments in infrastructure, it may consider a variety of options and alternatives, including the preferred type and amount of user fees. Related policy questions may include the following:

- Does Congress support the sequencing and relative spending on new construction and rehabilitation in the Capital Investment Strategy? Does Congress have data that assess the performance that might be achieved under alternative investment or contracting strategies?
- Do current policies and planning approaches favor new lock infrastructure at the expense of investing in major rehabilitation or other investments? Could a shift toward system-based planning alter the preferred alternatives developed by USACE for inland waterway investments?
- How has USACE addressed the deferred maintenance issues raised by GAO? Does Congress support USACE’s use of O&M funds (e.g., level of funding used on waterways with primarily recreational users)?

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