

Inland waterways backlog threatens U.S. competitiveness



Lock and Dam 25 on the Mississippi River

Despite the often robust, rosy accolades about America’s intermodal transportation network being the best in the world, a key benchmark to evaluate it against other countries says otherwise.

The World Bank’s Logistics Performance Index (LPI)—which examines 20 countries on how well their intermodal systems work end-to-end, and includes inland waterways and ports, truck, rail, warehousing services and logistics, customs and borders, and more—found that based on 2023 data, the U.S. ranked 15th with a score of 3.8 out of 5.

America’s transportation system was once the envy of the world, but decades of underinvestment have weakened its foundation. Inland waterways, often overlooked, now face a critical challenge: more than 80% of locks have exceeded their 50 year lifespan and require major rehabilitation or full replacement.

Poor construction execution and rising costs have driven a navigation project backlog of at least \$30 billion. According to U.S. Army Corps of Engineers Chief of Engineers Gen. William “Butch” Graham, a new lock now averages \$2 billion, with 16 major projects currently stalled across key rivers and waterways.

Despite securing billions in additional and supplemental funding since 2016, annual appropriations of about \$500 million mean progress is slow. In the past 28 years, only three major navigation projects have been completed, underscoring the scale of the challenge.

Waterways Council Inc. (WCI)

commissioned a study in September by HDR titled, “Recommendations for Improving the Delivery of Inland Waterway Capital Projects,” which identified six areas for needed improvement:

Funding: Utilizing continuing contracts, taking a programmatic approach to funding (rather than by project-by-project authorizations), and ensuring design maturity to produce better cost estimates;

Project Planning: Addressing the project information bottleneck posed by the Office of Management and Budget (OMB), engaging dedicated and experienced professionals within USACE and the broader industry for planning and management, identifying separable project elements that can be more easily funded and contracted out, based on designer and contractor specialties, and ensuring consistent and focused “cradle-to-grave” project oversight;

Scoping and Design: Conducting more rigorous site investigations for high-risk items (such as geotechnical, seismic, dewatering, real estate, environmental, and other National Environmental Policy Act [NEPA] issues), creating a standard design for components requiring limited site adaptation, and completing collaborative design (in a three-dimensional [3D] model) and constructability reviews;

Cost Estimates and Schedules: Conducting independent external peer reviews of project costs and schedules, identifying and including high-risk items during the project feasibility stage for better contingency estimates, and conducting value studies/analyses during planning/feasibility, and value engineering during design;

Construction Contracting and Project Execution: Exploring alternative delivery methods (rather than the traditional design-bid-build approach), maintaining a strategic reserve of key operation and maintenance (O&M) infrastructure components, and ensuring experienced resident engineers are assigned to large and complex projects.

WCI has recommended that the inland waterways construction program be managed as a single coordinated national program rather than a collection of competing individual projects among Corps Divisions and Districts.

We are calling for the creation of an Inland Navigation Construction Organization (INCO) within the Corps of Engineers to improve accountability, reduce cost, mitigate risk, and help Congress and American taxpayers achieve better returns on infrastructure investment.

If we don’t improve U.S. infrastructure project delivery, we may drop completely out of competition on the world stage. Currently, China is nearing completion on its inland-to-sea mega project, the Pinglu Canal, which will connect its inland systems directly to the Beibu Gulf in the South China Sea and reduce shipping distance by 350 miles. At a total cost of \$10 billion, the project began in August 2022 and is expected to open in late 2026.

We can—and must—do better.



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President/CEO

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