

Navigation & Ecosystem Sustainability Program

Upper Mississippi River — Sustainable River Transportation and Ecosystem



More Efficient Navigation

NESP includes construction of seven 1,200-foot locks at the most congested locations (Locks and Dams 20, 21, 22, 24, and 25 on the Upper Mississippi River and La Grange and Peoria on the Illinois Waterway). Congress further authorized smaller-scale efficiency improvements that will provide immediate benefits upon their implementation.

NESP's authorization includes \$1.948 billion for the seven new locks and \$256 million for the small scale efficiency measures.

The Impacts of Unscheduled Lock Outages—Oct 2017

- River transportation on the Upper Mississippi River System provides 59,000 directly related shipping jobs.
- From Lock and Dam 25, products are shipped to 132 counties in 16 states and global markets.
- An outage at L&D 25 would cost nearly \$1.6B and increase the number of truck traffic trips by more than 500,000 annually.

Submitted to: National Waterways Foundation and U.S. Maritime Administration

Photos: (TOP) City of La Crosse, floodplain, and navigation © Robert J. Hurt; (INSET) Tows of 1,200-foot length must be cut and reconfigured to pass through a 600-foot lock. Here a second cut waits to enter L&D 25. © U.S. Army Corps of Engineers

A vision for America's river: Modernizing Navigation & Rehabilitating the Ecosystem

The Upper Mississippi River System (UMRS) is the only river system designated by the Congress as a “nationally significant ecosystem and a nationally significant commercial navigation system.” Congress declared its commitment to modernizing this critical waterway system and restoring its ecosystem by authorizing the Navigation and Ecosystem Sustainability Program (NESP) in 2007. NESP is an unprecedented, dual-purpose authority allowing the U.S. Army Corps of Engineers to integrate management of the UMRS navigation system and ecosystem.



Working for a Healthier Economy and Ecosystem

- **Building on a Strong Economy**—The UMRS directly generates over \$584 billion in economic activity, supporting more than 1.86 million jobs.
- **Creating and Supporting Jobs**—NESP will immediately create tens of millions of job-hours for many skilled construction trades and support and strengthen existing jobs at grain elevators, manufacturing facilities, terminals, and ports. A healthy, thriving ecosystem also supports thousands of working class jobs—for example, the river draws millions of people from across the world supporting shops, restaurants, and outfitters and marinas in river towns.
- **Building Economic Growth from Navigation Improvements**—Modernized navigation locks and small-scale efficiency improvements will help expand the UMRS economy by lowering transportation costs, minimizing safety risks, and facilitating new market opportunities.
- **Building Economic Growth from Ecosystem Restoration**—Complexes of naturally functioning wetlands, braided channels, and floodplain forests filter pollutants, trap carbon, and absorb rains that lessen flood impacts. Restoration improves the quality of life for many local communities and ensures the viability of the river's \$54.8 billion tourism and recreation industry, which supports 686,000 jobs.



Island building restores the river's natural processes and fish and wildlife habitat, and creates private sector construction jobs.
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Healthier River Ecosystem

The river ecosystem requires human support to be healthy and vibrant for future generations. NESP will improve conditions for fish and wildlife through the construction of fish passage, modified dam operations for the environment, 65 backwater and island enhancements, 29 side channel reconnections, and 92 modifications to channel structures. System ecological monitoring will document river health and allow river experts to assess the value of the restoration actions.

NESP's authorization includes \$1.717 billion for a 15-year effort to restore the river's ecological integrity and ability to support fish and wildlife, plus \$10.42 million annually for monitoring.

Federal Investment is Needed Now to Ensure the River's Long Term Viability

This river transports more than 60 percent of America's corn and soybeans exports and is home to 25 percent of North America's fish species and is a flyway for 60 percent of North America's bird species. Today, both the river transportation system and ecosystem are deteriorating and need urgent attention. Our broad coalition respectfully requests that Congress:

- Fund NESP to make immediate small-scale efficiency improvements to the navigation system, modernize seven outdated locks, and restore the quality, quantity, and diversity of habitat available for a wide range of native fish and wildlife.
- Provide necessary rehabilitation and operation and maintenance of the UMRS navigation infrastructure to ensure the system's reliability and avoid catastrophic failure.
- Continue to support the vigorous Upper Mississippi River Restoration program until NESP is functioning at a level that surpasses the current investment in ecosystem restoration on the UMRS.

Ongoing Challenges to the River's Long Term Integrity

Navigation Challenges

- **Underutilized, Single Cell Locks Limit Capacity**—Locks only 600 feet long require tows to pull apart and lock through in two stages. Single chambers constrain traffic to one-way. Both inefficiencies drive up costs and delivery time, hindering the nation's competitiveness and reducing market opportunities.
- **Gambling on 1930s Infrastructure**—Most locks were constructed between 1907 and 1936, built for yesterday's needs with a limited intended life span. Investment is needed to accommodate current needs and create future market opportunities.
- **Aging Locks Suffer Increased Closures**—A closure at just one lock shuts down the entire system. Lock outages have increased 700 percent nationally over the past decade. A closure of Lock and Dam 25 for just one year would result in a loss of more than 7,000 jobs, \$1.3 billion of labor income, and approximately \$2.4 billion of economic activity to the corn and soybean industry alone.

Environmental Challenges

- **Ecosystem Degradation Outpaces Restoration**—Altered river flows and water levels, broken connections between the floodplain and flowing river, and excess sedimentation and runoff cause plant mortality and limit conditions for native aquatic and terrestrial plants to establish and grow. These plants are shelter, nurseries, and food for fish and wildlife, but also improve water quality for humans.
- **Sediment Clogs Habitat**—Sediment trapped by the dams is filling in wetlands, riverine wetlands and lakes, and channels, limiting habitat availability. Excess nutrients cause nuisance algal blooms and deplete the water of oxygen for aquatic species.
- **Invasive Species Limit the Survival of Native Species**—Asian carp, trematodes, reed canary grass, and zebra mussels are but a few of the invasive species that outcompete and limit the survival and health of native fish and wildlife species.

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