



US Army Corps
of Engineers
Memphis District

Regional Channel Improvement (AR, IL, KY, LA, MS, MO, TN) Dredging, Dikes and Revetments

ASA(CW) Initiative:

- Protecting Life, Health, and Safety
- Enabling Economic Activity

MVD Command Priorities:

- Maintain Safe, Reliable, Navigation
- Inland Navigation
- Provide Flood Risk Management
- Complete and Strengthen the MR&T System

P2 / AMSCO Numbers:

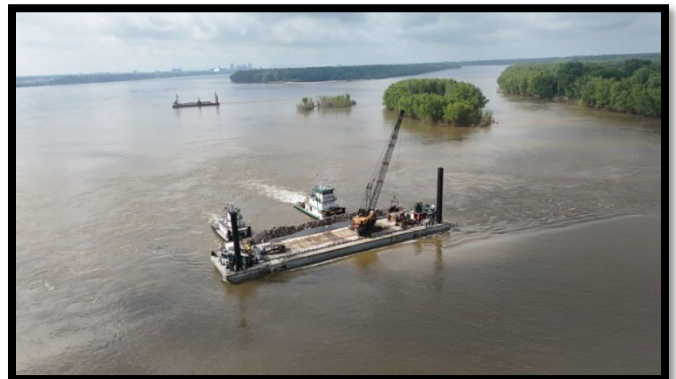
Project	P2 Number AMSCO	
Dike Const	107046	077042
Dike Maint	107048	077047
Revetment Const	107068	077045
Revetment Maint	107069	077046
Dredging Maint	107050	077041

Location: The Regional Channel Improvement Area of Responsibility along the Lower Mississippi River extends from the confluence of the Ohio and Mississippi Rivers near Cairo, Illinois, downstream to the Gulf of America (approximately 1,000 miles). This reach serves as one of the most critical commercial waterways in the United States.

Description: The Memphis District manages the comprehensive Regional Channel Improvement (consisting of dikes, revetment, and dredging) along the Lower Mississippi River to maintain a safe and reliable navigation channel while supporting flood risk management infrastructure. This work includes dredging to maintain authorized channel depths (from Cairo, IL, to Baton Rouge, LA), construction and maintenance of river training structures such as dikes and revetments to guide river flow and stabilize banks, and the placement of articulated concrete mattress to prevent erosion that could threaten levee systems and navigation alignment. The regional program also operates and maintains specialized floating plant, including dredges, mat sinking units, bank grading units, and support vessels that carry out these missions along the river. These operations are supported by marine maintenance, fabrication, and repair capabilities at Ensley Engineer Yard in Memphis, Tennessee, which provides critical support to keep the Corps' navigation and river stabilization fleet operational year-round.

Importance: The Mississippi River from the confluence with the Ohio River at Cairo, Illinois, to the Gulf of America is one of the most important commercial waterways in the United States. This stretch serves as a vital artery for national and international shipping, moving an average of approximately 152 million short tons of cargo annually, including about 60 percent of the nation's grain exports through the Port of South Louisiana. Often described as a "water highway," the river allows goods to move far more efficiently than by truck or rail. A single 15-barge tow carries the equivalent of roughly 1,050 semi-trucks, generating billions of dollars in transportation savings for the U.S. economy each year. By linking the agricultural Midwest to global markets, this section of the Lower Mississippi River functions as the backbone of American bulk commodity trade.

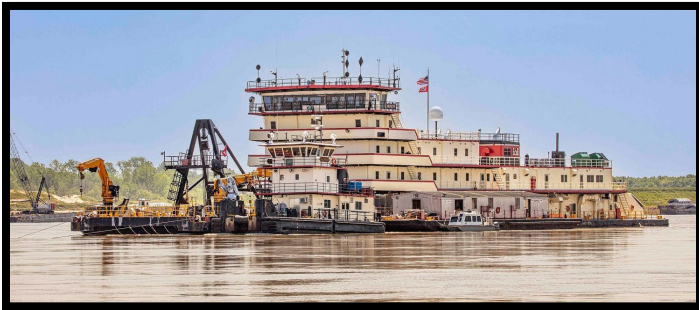
Maintaining this vital corridor requires managing a dynamic and constantly changing river system. The U.S. Army Corps of Engineers uses a combination of river training structures and dredging to maintain a safe and reliable navigation channel. Dikes and revetments shape and guide the river's natural flow, concentrating current in the navigation channel so the river can scour and maintain much of its own depth. These structures stabilize riverbanks, protect levees, and align the river in a way that supports both navigation and flood risk management.



Where the river cannot naturally maintain the precise channel depth needed for modern commercial navigation, dredging is used to fine-tune the channel. Dredging removes sediment that accumulates from shifting sandbars and seasonal changes in river levels, ensuring vessels can safely operate at authorized drafts and tow sizes. By combining river training structures that allow the river to maintain itself with targeted dredging that provides precise channel

depths, the Corps maintains an efficient and reliable navigation corridor while minimizing long-term maintenance needs.

A key asset supporting this mission is the Dredge Hurley, the newest of the Mississippi Valley Division's dustpan dredges and one of only four in the United States. The Hurley moves an average of more than 10.8 million cubic yards of sediment annually, helping maintain navigation depths along the Lower Mississippi River. Strategic upgrades have increased its effectiveness, including a 2010 extension allowing dredging up to 75 feet deep and a 2017 pump upgrade that increased production by roughly 30 percent.

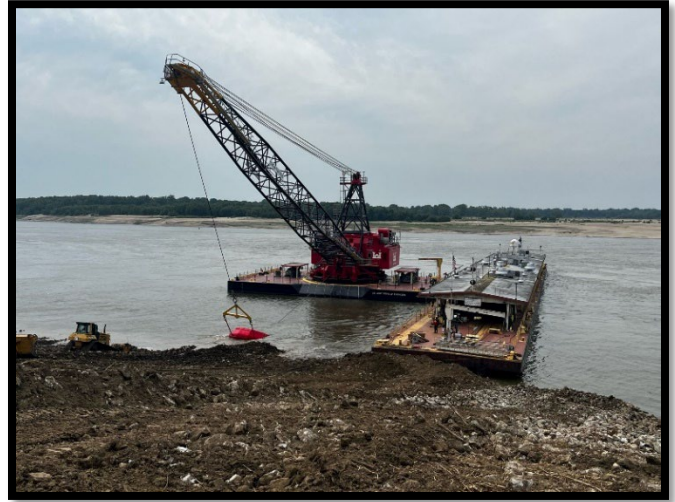


The dredge Hurley is currently undergoing a \$41 million repower project, scheduled for completion in June 2026, to modernize its power systems and ensure long-term reliability. The project replaces three General Electric engines with new Wabtec diesel engines and installs new AvK generators, while also completing major maintenance work including refurbishment of dredge pump motors, keel cooler upgrades, and new fendering. Conducting these improvements simultaneously minimizes downtime and ensures the dredge returns to service in optimal condition.

In addition to dredging, the Memphis District in conjunction with the Vicksburg District maintain river alignment and bank stability through the Regional Channel Improvement program, which uses articulated concrete mattress to prevent erosion that could threaten the Mississippi River levee system and navigation channel. The original Mat Sinking Unit and Bank Grading Unit, constructed in the 1940s and 1950s, supported these efforts for decades.

Recent recapitalization efforts are modernizing these capabilities:

- The new Bank Grading Unit entered service in July 2023
- Vicksburg District is managing the construction of the new Mat Sinking Unit (Armor 1), scheduled to enter service in 2027.



Additional investments supporting the revetment program include:

- An automated articulated concrete mattress casting facility at Richardson Landing, Tennessee
- Six new articulated concrete mattress supply barges
- A new mooring barge to support the Mat Sinking Unit

Supporting these operations is the Ensley Engineer Yard in Memphis, Tennessee, a 30-acre marine maintenance and fabrication facility staffed by welders, machinists, electricians, heavy equipment operators, and marine crews. A unique feature of the yard is the one-mile-long "Stringout," a floating dock equipped with shore power and utilities that allows multiple vessels to be serviced simultaneously.

The yard supports both the Regional Channel Improvement mission, which maintains river alignment through clearing, snagging, bank grading, and mat placement operations, and the Navigation mission, which maintains channel depth through dredging operations centered on the Dredge Hurley. At the core of these efforts is the Marine Maintenance division, which provides comprehensive vessel repair and fabrication services to ensure the Corps' specialized fleet remains mission-ready.