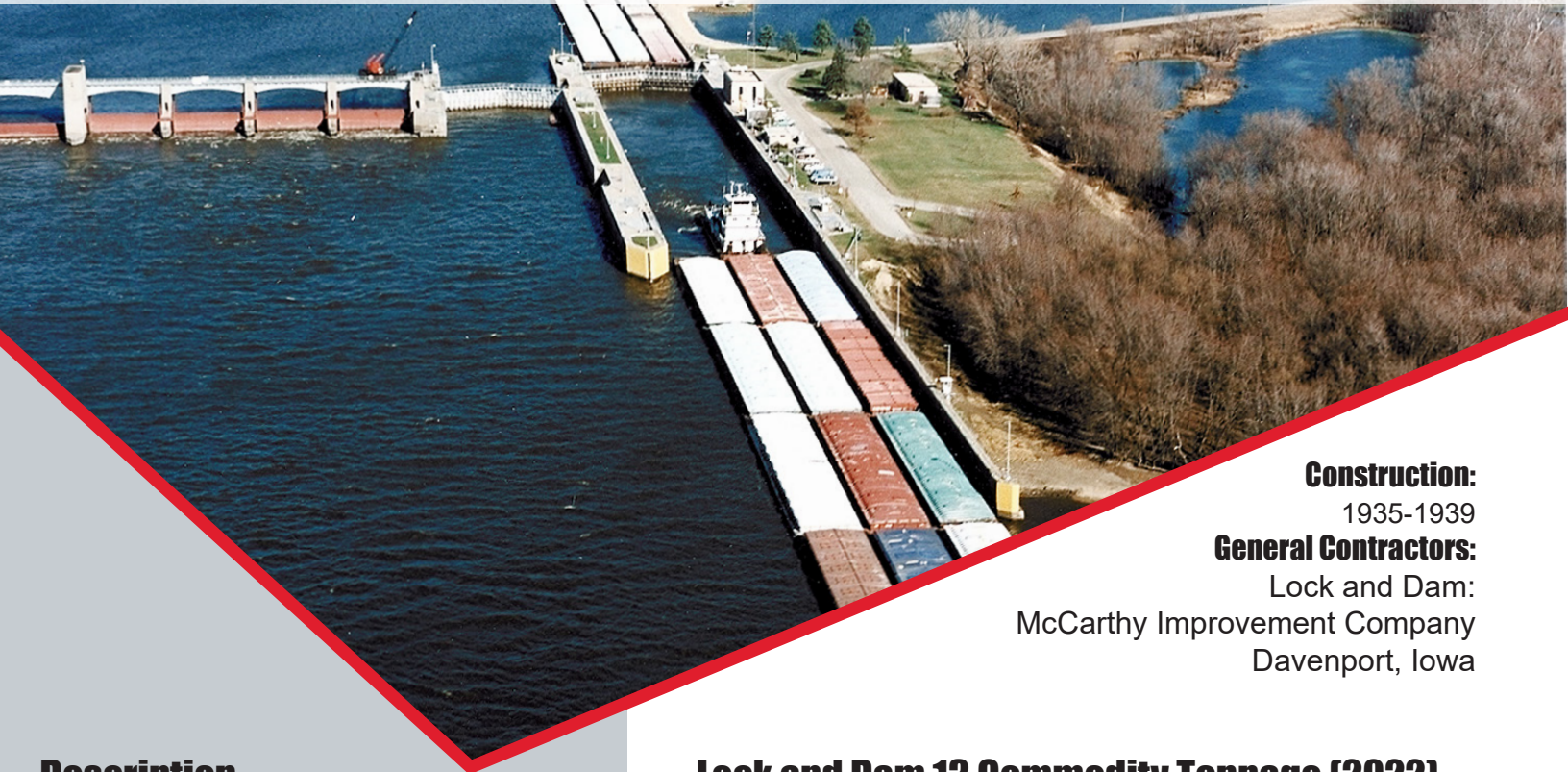


# Lock & Dam 13

Mississippi River, *Fulton, Illinois*



## Construction:

1935-1939

## General Contractors:

Lock and Dam:  
McCarthy Improvement Company  
Davenport, Iowa

## Description

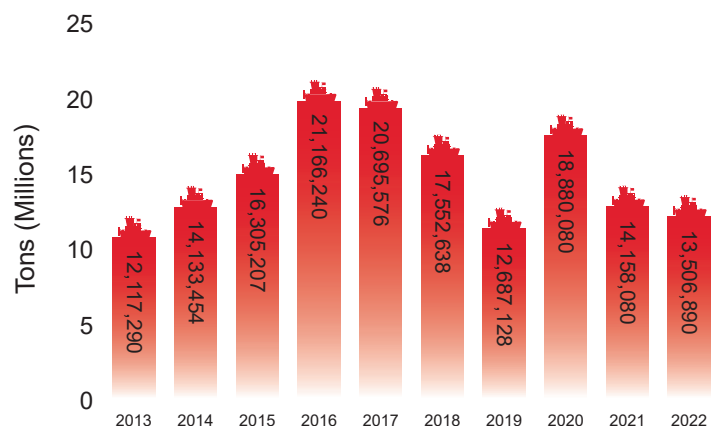
Lock and Dam 13 is 522.5 miles above the confluence of the Mississippi and Ohio rivers. The complex stretches across the river at a point where the bluffs on the Iowa side are very close to the river; islands and chutes dot the river beneath the bluffs. Eagle Point Nature Center occupies the high bluff immediately above the lock and dam. A dense group of sloughs and islands extend out from the Illinois shore. Lock dimensions are 110 by 600 feet with additional provisions for an auxiliary lock. The maximum lift is 11 feet with an average lift of 8.6 feet. It takes approximately 10 minutes to fill or empty the lock chamber.

The movable dam consists of 10 submersible Tainter gates, 20-feet high by 64-feet long; and three submersible roller gates, 20-feet high by 100-feet long. The dam system also includes three non-overflow earth and sand-filled dikes; two transitional dikes; and a submersible earth and sand-filled dike. It takes 10 hours for water to travel from Lock and Dam 12, in Bellevue, Iowa, to Lock and Dam 13.

## Lock and Dam 13 Commodity Tonnage (2022)

Food and Farm Products	6,753,360
Chemicals and Related Products	2,706,850
Crude Materials, Inedible, Except Fuels	1,377,630
Primary Manufactured Goods	1,256,050
Petroleum and Petroleum Products	713,240
Coal, Lignite, and Coal Coke	651,300
Manufactured Equipment & Machinery	29,260
Waste Material	14,400
Unknown or Not Elsewhere Classified	4,800
<b>Total Tonnage</b>	<b>13,506,890</b>

## Annual Tonnage (10 Year- Historical)



**U.S. ARMY CORPS OF ENGINEERS – ROCK ISLAND DISTRICT**  
CLOCK TOWER BUILDING, P.O. BOX 2004, ROCK ISLAND, IL 61204-2004  
Corporate Communications Office, (309) 794-5729, [www.mvr.usace.army.mil](http://www.mvr.usace.army.mil)

## History/Significance

Construction of Lock 13 began in July 1935 and was completed in December 1936. Construction on Dam 13 began in January 1937 and was completed in December 1938. Design and construction of Lock and Dam 13 were funded by the Emergency Relief Act (1935-1037). The structure was placed in operation May 13, 1939.

The contractor was given a one-time extension during lock construction. The Mississippi River began rising steadily so that by April 1, 1936, the cofferdam pumps were inadequate to keep the water level low enough to place concrete. On April 4, the contractor permitted the cofferdam to flood. The river stage exceeded flood stage by 0.04 feet during the night of April 6-7. The contractor began dewatering on May 9, but pumping was stopped on May 13 due to a river rise. On May 19, dewatering began again and operations in the cofferdam resumed June 1, 1936.

While working on the earthen dike, the contractor was granted a 25-day time extension on the dam contract due to high water from Sept. 13 through Oct. 7, 1938. Contract work was completed and accepted 12 days prior to the fixed completion date. The lock and dam elements of the complex were completed at a federal cost of \$7,503,000.

Lock and Dam 13 underwent major rehabilitation between 1993-1995. Stage I-A extended the scour protection to 65' upstream of the dam and 125' downstream of the dam sills. Stage II replaced miter gate and Tainter valve machinery, horizontal and vertical concrete resurfacing, electrical system replacements, and constructed two new control stand booths on the land wall. Stage IB replaced and painted select members inside the roller and Tainter gates, resurfaced concrete on dam piers, upgraded drive machinery, including chains, pocket wheels and gears.



## Vessel & Lockage Data (2021)

Average Delay - Tows (Hours)	1.8
Barges Empty	3,492
Barges Loaded	8,954
Commercial Vessels	1,713
Commercial Lockages	2,413
Other Vessels	29
Other Lockages	27
Recreational Vessels	614
Recreational Lockages	314
Total Vessels	3,081
Total Lockages	3,054

## The 9-Foot Channel Navigation Project

The 9-foot Channel Navigation Project includes 37 lock and dam sites (42 locks) on 1,200 river miles in Illinois, Iowa, Minnesota, Missouri and Wisconsin. Constructed largely in the 1930s, it extends from Minneapolis-St. Paul on the Upper Mississippi River to its confluence with the Ohio River near Cairo, Illinois, and up the Illinois Waterway to the T.J. O'Brien Lock in Chicago.

The system is often compared to a stairway with the "treads" being the pools of water created by each dam, with the locks serving as "risers," carrying boats from one river pool to the next like an elevator. This system of locks and dams provides what the rivers in their natural states couldn't – a dependable nine-foot depth for commercial navigation.

Operating the locks and dams is a continuous job as tows and recreational vessels lock through year-round, if weather conditions permit. The structures have long outlived their life expectancy but continue to operate efficiently thanks to the hard work and dedication of USACE employees who operate and maintain the structures.

The inland waterway navigation system is essential to the economy of the Midwest as well as the nation and world. More than 580 facilities ship and receive commodities within the Nation's Corn Belt Ports Statistical Area. Grains (corn and soybeans) dominate traffic; cement and concrete products are the second largest group. A modern 15-barge tow transports the equivalent of 1,050 semi-trucks (26,250 tons, 937,387 bushels of corn, or 240 rail cars). On an annual basis, the 9-foot channel project provides billions of dollars in transportation cost savings to the navigation industry.

