



Marseilles Lock & Dam

(Marseilles, Illinois)
Illinois River

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Construction: 1920-1933

General Contractors:

Lock: Green and Sons Company, Chicago, Illinois & Independent Bridge Company, Pittsburgh, Pa.
Marseilles Canal: Callahan Construction Company, St. Louis, Mo.

Congressional District: IL-16

Description

Marseilles Lock is 244.6 miles above the confluence of the Illinois River with the Mississippi river at Grafton, Illinois, at the foot of Bells Island. Marseilles Dam is 2.5 miles upstream of the lock at the head of Bells Island.

The lock and dam is located southwest of Marseilles, Ill., near Illini State Park. The Marseilles Canal, adjacent to the left bank of the Illinois, extends from the dam to the lock. There are hydroelectric generating facilities at the dam.



The lock is 110 feet wide by 600 feet long. The maximum lift is 24.5 feet with an average lift lower than 24 feet. It takes an average of 15 minutes to fill the lock chamber; 10 minutes to empty it.

The dam is a fixed, gated-concrete, gravity dam. The main dam is 598.5-feet long with eight submersible Tainter gates (60-feet wide, 16-feet high, 25-foot radius) and Ogee spillway at Ice Chute. The gates are remotely controlled by the lockmaster at the lock. The South Channel Headrace dam is 111-feet long with one Tainter gate. The North Channel Headrace dam is 206-feet long with two Tainter gates. It takes six hours for water to travel from Dresden Island Lock and Dam to Marseilles during flood or high flow conditions.

History/Significance

The Marseilles complex was one of five begun by the state of Illinois in 1920. The dam was about 95 percent complete when construction was turned over to the federal government due to state financial difficulties. The lock was completed, except for the steel work, in August 1923. The contract for the lock gates, valves and lower approach wall was let in 1927. Marseilles Dam was completed in 1933 at a cost \$3,079,372, of which \$1,796,372 was funded by the state and \$1,283,000 was funded by the government.

Annual Tonnage (20-Year Historical)

<u>Year</u>	<u>Tons</u>	<u>Year</u>	<u>Tons</u>	<u>Year</u>	<u>Tons</u>	<u>Year</u>	<u>Tons</u>
2016	17,090,586	2011	14,542,844	2006	21,026,154	2001	20,886,084
2015	16,646,081	2010	14,125,162	2005	20,132,748	2001	20,237,408
2014	17,839,296	2009	14,182,160	2004	21,752,977	1999	19,155,838
2013	14,109,508	2008	15,657,070	2003	19,619,082	1998	20,344,523
2012	15,163,406	2007	17,214,268	2002	20,132,588	1997	18,417,218

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Commodity Tonnage (2016)

All Units (Ferried Autos, Passengers, Railway Cars)	-
Coal, Lignite, and Coal Coke	1,106,274
Petroleum and Petroleum Products	4,406,760
Chemicals and Related Products	3,229,472
Crude Materials, Inedible, Except Fuels	4,001,230
Primary Manufactured Goods	2,350,652
Food and Farm Products	1,826,923
Manufactured Equipment & Machinery	117,375
Waste Material	9,400
Unknown or Not Elsewhere Classified	42,500

Vessel & Lockage Data (2016)

Average Delay - Tows (Hours)	3.86
Average Processing Time (Hours)	1.10
Barges Empty	4,958
Barges Loaded	9,731
Commercial Vessels	3,012
Commercial Flotillas	2,897
Commercial Lockages/Cuts	3,431
Non-Vessel Lockages	3
Non-Commercial Vessels	57
Non-Commercial Flotillas	54
Non-Commercial Lockages/Cuts	54
Percent Vessels Delayed (%)	71
Recreational Vessels	679
Recreational Lockages	363
Total Vessels	3,748
Total Lockages/Cuts	3,851

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 and up the Illinois Waterway to the T.J. O'Brien Lock in Chicago.

The maintenance needs of this aging infrastructure have surpassed annual operations and maintenance funding. This limited funding has adversely affected reliability of the system and has primarily resulted in a fix-as-fail strategy, with repairs sometimes requiring days, weeks or months. Depending on the nature of a failure and extent of repairs, shippers, manufacturers, consumers and commodity investors can experience major financial consequences. Additionally, today's 1,200'-long tows must split and lock through in two operations within the Project's 600' chambers. This procedure doubles and triples lockage times, increases costs and wear to lock machinery, and exposes deckhands to higher accident rates.

More than 580 facilities ship and receive commodities within the Project. 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). In 2015, the 9-foot channel project generated an estimated \$3 billion of transportation cost savings compared to its approximately \$246 million operation and maintenance cost.

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