



Lock & Dam 8

(Genoa, Wisconsin)
Mississippi River

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Construction: 1933-1938

General Contractors:

Lock: Jutton-Kelly Company, Milwaukee, Wisc.

Dam: Siems-Helmets, Inc., St. Paul, Minn.

Congressional District: MN-1; WI-3

Description

Lock and Dam 8 is located at Mississippi River Mile 679.2 near Genoa, Wisconsin, 173.4 miles below Minneapolis.

The main lock is located along the left descending bank and consists of one lock chamber 110 feet wide by 600 feet long with an upper pool elevation of 631.0 feet, a tailwater elevation of 620.0 feet, and a vertical lift of 11.0 feet. There are miter gates at each end of the lock chamber. There is a partial auxiliary lock consisting of an upstream set of miter gates and short concrete riverwall section. The foundation material consists of piles in sand, gravel and broken clay.



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The movable dam consists of a concrete structure 934 feet long with five roller gates (20 feet high by 80 feet long), eight non-submersible Tainter gates (15 feet high by 35 feet long), and two submersible Tainter gates (15 feet high by 35 feet long), and is located adjacent to the auxiliary lock. Completing the dam system is an earthen embankment approximately 15,000 feet long, located between the movable dam and high ground on the Minnesota side of the river, with two submersible sheetpile cell spillways, 938 and 1,338 feet long, respectively. The foundation consists of piles in sand and gravel.

The site has a public observation platform and restrooms open from dawn to dusk from April to November.

History/Significance

The Lock was put in operation in April 1937. The design of Lock and Dam 8 was not dictated by unusual river hydrology so much as for the need for a lock and dam system at that point of the river so that the 9-foot channel system might function properly. Eighty-six accidents and one fatality occurred during dam construction; no accidents or fatalities were reported during construction of the lock. The complex was completed at an estimated cost of \$7,728,000.

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>
1992	13,812,291	1997	14,287,030	2002	15,331,794	2007	11,077,630
1993	9,987,293	1998	15,041,200	2003	13,160,824	2008	7,928,446
1994	12,464,010	1999	16,826,200	2004	11,569,495	2009	10,085,073
1995	13,800,591	2000	15,877,048	2005	11,090,000	2010	10,458,926
1996	15,065,446	2001	12,773,176	2006	11,712,327	2011	10,277,231

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180 5TH STREET EAST, SUITE 700, ST. PAUL, MN 55101-1678

Public Affairs Office, (651) 290-5200, www.mvp.usace.army.mil

Commodity Tonnage & Lockages (2011)

Coal	391,427	<u>Subtotals:</u>	Grain	4,632,440	
Petroleum	283,802		Steel	41,217	
Chemicals	1,813,970		<u>Lockages:</u>	Commercial Boats:	833
Crude Materials	1,860,390			Recreation Boats:	3,400
Manufactured Goods	956,300			Light Boats:	62
Farm Products	4,938,882			Other Boats:	38
Manufactured Machinery	16,460			Total Boats:	4,333
Waste Material	0			Total Cuts:	2,620
Containers & Pallets	1,600				
Unknown	14,400				

The 9-Foot Channel Project

Lock and Dam 8 is one of 29 locks and dams on the Upper Mississippi River that provide a water stairway of travel for commercial and recreational traffic from Minneapolis to the Gulf of Mexico.

The existing 9-foot Channel Navigation Project was largely constructed in the 1930s and extends down the Upper Mississippi River from Minneapolis-St. Paul to its confluence with the Ohio River and up the Illinois Waterway to the Thomas J. O'Brien Lock in Chicago. It includes 37 Locks and approximately 1,200 miles of navigable waterway in Illinois, Iowa, Minnesota, Missouri and Wisconsin.

The maintenance needs of the aging infrastructure are increasing at a rate much greater than the operations and maintenance funding provided for the system which adversely affects reliability of the system. Long-established programs for preventive maintenance of major lock components have essentially given way to a fix-as-fail strategy, with repairs sometimes requiring weeks or months to complete. Depending on the malfunction, extended repairs can have major consequences for shippers, manufacturers, consumers, and commodities investors.

Additionally, the system's 600-foot locks do not accommodate today's modern tows without splitting and passing through the lock in two operations. This procedure requires uncoupling barges at midpoint which triples lockage times and exposes deckhands to increased accident rates.

There are more than 580 manufacturing facilities, terminals, grain elevators, and docks that ship and receive tonnage in the Upper Mississippi River basin. Grains (corn and soybeans) dominate traffic on the system. Other commodities, mainly cement and concrete products, comprise the second largest group. A modern 15-barge tow transports the equivalent of 1,050 large semi-trucks (26,250 cargo tons, 875,000 bushels, or 17,325,000 gallons). Annually, the 9-foot project generates an estimated \$1 billion of transportation cost savings compared with the operation and maintenance costs of approximately \$115 million.

UPDATE: October 2012

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