Lockport Lock & Dam

(Lockport, Illinois)
Chicago Sanitary & Ship Canal

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Construction: 1923-1933

Congressional District: IL-13

Description

Lockport Lock and Dam is 291.0 miles above the confluence of the Illinois River with the Mississippi river at Grafton, Illinois. The complex is two miles southwest of the city of Lockport, Illinois.

The lock is 110 feet wide by 600 feet long. Maximum vertical lift is 42.0 feet, the average lift is 39 feet. It averages 22.5 minutes to fill the lock chamber; 15 minutes to empty.

The Lockport Dam consists of the Metropolitan Water Reclamation District of Greater Chicago (MWRD) lock, powerhouse and associated controlling works. The MWRD, through Congressional action, transferred the maintenance responsibilities of the substructures and support structures to the Corps in the early 1980s for the roughly forty-five foot high embankment, controlling works, powerhouse substructures, and all pool retention structures. The Corps controls the lock; however, has no ownership of the controlling works.

Rehabilitation of the lock was completed in 1989 at a cost of $22,681,000.

History/Significance

The lock opened in 1933. Lockport Lock was one of five designed and partially constructed by the state of Illinois over a period from 1923 to 1930. The complex was about 97 percent complete when construction was turned over to the federal government due to state financial difficulties.

The government, by the authority of the Rivers and Harbors Act of 1930, completed construction of the lock in 1933. The opening of the Lockport Lock coincided with the opening of the downstream Brandon Road, Dresden Island, Marseilles, and Starved Rock locks and dams. The total cost of the lock was $2,153,867, of which $2,020,259 was state funded and $133,608 was funded by the federal government.

Annual Tonnage (20-Year Historical)

Year	Tons	Year	Tons	Year	Tons	Year	Tons
2015	11,814,590	2010	9,853,988	2005	16,929,707	2000	16,788,986
2014	12,360,010	2009	10,240,591	2004	17,341,066	1999	16,039,564
2013	9,889,403	2008	12,460,893	2003	15,310,005	1998	16,474,962
2012	10,401,920	2007	13,507,517	2002	16,872,206	1997	15,247,978
2011	10,552,834	2006	17,248,750	2001	15,970,297	1996	15,502,999

Commodity Tonnage (2015)

All Units (Ferried Autos, Passengers, Railway Cars)	-
Coal, Lignite, and Coal Coke	1,007,211
Petroleum and Petroleum Products	1,896,350
Chemicals and Related Products	1,461,260
Crude Materials, Inedible, Except Fuels	4,190,336
Primary Manufactured Goods	2,712,023
Food and Farm Products	467,710
Manufactured Equipment & Machinery	43,600
Waste Material	4,600
Unknown or Not Elsewhere Classified	31,500

Vessel & Lockage Data (2015)

Average Delay - Tows (Hours)	1.84
Average Processing Time (Hours)	1.07
Barges Empty	4,414
Barges Loaded	7,049
Commercial Vessels	3,498
Commercial Flotillas	3,149
Commercial Lockages/Cuts	3,273
Non-Vessel Lockages	1
Non-Commercial Vessels	4
Non-Commercial Flotillas	3
Non-Commercial Lockages/Cuts	3
Percent Vessels Delayed (%)	86
Recreational Vessels	446
Recreational Lockages	256
Total Vessels	3,948
Total Lockages/Cuts	3,533

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). Annually, the 9-foot project generates an estimated $1 billion of transportation cost savings compared to its approximately $115 million operation and maintenance cost.

UPDATE: May 2016