



WATERWAYS
COUNCIL, INC.

McAlpine Locks & Dams

<i>Location</i>	Ohio River Mile 606.8, in downtown Louisville, Kentucky and near Jeffersonville, Indiana.
<i>Existing Structures</i>	110' x 1200' lock completed in 1961; a second 110' x 1200' was completed in place of the existing 110' x 600' auxiliary lock.
<i>Annual Tonnage and Projected Traffic Growth</i>	In 2008, 58.7 million tons of commerce worth \$12.4 billion transited McAlpine Locks, of which 49% was coal. Other important commodities included iron/steel, petroleum products, chemicals, aggregates and grains. Projected Traffic Growth is 91 million tons by 2030. (source: <i>Ohio River Main Stem Systems Study – Interim Feasibility Report</i>)
<i>Summary of Problems</i>	Future traffic growth, age and deterioration of the present auxiliary facilities are just some of the problems. These circumstances justify the need for an additional 110' x 1200' lock.
<i>Corps of Engineers Actions</i>	Construction began in 1996 and was completed in 2009.

McAlpine Locks and Dam

Project Description

The McAlpine Locks and Dam project is located at Ohio River Mile 606.8 in downtown Louisville, Kentucky and near Jeffersonville, Indiana. The McAlpine Locks Replacement Project provides for a new 110 foot by 1,200-foot lock to replace the inactive 56-foot by 360 foot lock and the 110 foot by 600 foot auxiliary lock. The project when completed will then have two 1,200-foot locks. The McAlpine Locks and Dam pass an average of 58.7 million tons of commodities annually.

Transportation Importance to the System

Since April 2001 the project has been operating on the one remaining 1200-foot lock. The miter gates for that lock are at the end of their life and significant work was done on them in 1997 to prepare them to last through construction of the new lock. However; severe cracking of key structural components was found in the miter gates during a spring 2004 inspection. The river was shut down for 12 days in August 2004 for emergency repairs. Standby miter gates are on site and can be placed in the lock if failure of one of the existing gates occurs. That process would require 45-60 days to accomplish and means the river would be shut down to all traffic for that period. The risk of an emergency shut down of the river for even a short period of time is great, as approximately 40% of the tonnage through McAlpine is coal which fuels numerous electric power plants up and down the Ohio River and those plants typically only stockpile about a 30 day supply. Also McAlpine is a pathway for iron ore, bauxite ores, steel products, petroleum, aggregate and grain.

Project Funding History

The McAlpine Locks and Dam project is cost-shared 50/50 with the Inland Waterways Trust Fund. The total cost of the project is \$430 million. The remaining benefit to cost ratio is 135.7 to 1 based on an interest rate of 7 percent. The average annual benefits for this project are \$44.4 million (Oct 2003 dollars). Approximately \$379 million has been expended through FY07 leaving a balance of approximately \$51 million to complete the project. The last Appropriation for the project was \$6.27 million in FY 09. The project was completed in March 2009.

January 2010

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