



Greenup Locks and Dam Ohio River, Kentucky/Ohio

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Location	Ohio River Mile 341 in Greenup County, Kentucky and Lawrence County, Ohio; 24 miles downstream from Huntington, West Virginia.
Existing Structure	110' x 1200' main lock and 110' x 600' auxiliary lock, constructed in 1959.
Annual Tonnage	In 2001, 73.7 million tons of commerce worth almost \$9.6 billion transited Greenup Locks, of which 62% was coal. Other important commodities included petroleum, aggregates, iron, steel and chemicals.
Projected Traffic Growth	91 million tons by the year 2010 and 113 million tons by 2030. <i>(source: Ohio River Main Stem Systems Study – Interim Feasibility Report)</i>
Summary of Problems	Major repairs of the main chamber associated with heavy use and age force greater future reliance on the inadequately-sized auxiliary chamber. This results in accelerating transit costs.
Corps of Engineers Action	The John T. Myers and Greenup Locks Improvements Interim Feasibility Report of the Louisville and Huntington Districts, a product of the Ohio River Mainstem Study, recommends a 600' extension for the auxiliary lock, a miter gate quick change out system and rehabilitation of the main lock. The project was authorized by the Water Resources Development Act of 2000. Design work has begun, but the project is ready to be let for construction.

Source: US Army Corps of Engineers

GREENUP LOCKS & DAM PROJECT

PROJECT DESCRIPTION. The Greenup Locks & Dam project, located on the Ohio River downstream of the confluence of the Big Sandy River, was authorized by the Water Resources Development Act of 2000. The extension of the existing landward auxiliary lock chamber will eliminate costly delays resulting from closures of the main lock chamber. The project consists of two new mooring cells downstream of the dam near the Ohio bank, extending the existing landward auxiliary lock chamber (110' X 600') 600' downstream to create a 110' X 1200' lock chamber, a spare miter gate system, a dry dock for construction, rehabilitation of the existing main lock chamber and components of the dam and environmental mitigation. Greenup Locks and Dam were placed in service in 1959 and are the eighth busiest inland navigation lock in the country based on tonnage in 2001 with an annual tonnage of over 70 million tons of commodities locked through.

TRANSPORTATION IMPORTANCE TO THE SYSTEM. Coal being shipped out of the Appalachian coal fields is locked through Greenup en route to various electric generating plants as well as coal and other raw materials being shipped up-river on the Ohio River to locations of major manufacturing and electric generating plants. In 2001, 70.6 million tons were locked through Greenup Locks and Dam. In 2001, more coal was locked through Greenup than any other lock on the inland waterways, destined for many of the 50 power plants located on the Ohio River System. Since 1991, there have been four major closures, as well as numerous other closures, of the main lock chamber at Greenup totaling more than \$26 million in transportation delay costs. In 2003, the main lock chamber was closed in excess of 52 days resulting in transportation delay costs of \$13.2 million and ancillary costs of \$28.7 million.

PROJECT FUNDING HISTORY. The project is cost-shared 50/50 with the Inland Waterways Trust Fund. The total project cost is \$230 million, excluding rehabilitation. The remaining benefit to cost ratio is 2.71 to 1 based on an interest rate of 5 5/8 percent. The average annual navigation benefits for this project are \$26.8 million. A total of \$8.0 million has been allocated for the Greenup project through FY 2006. This money has been utilized to accomplish pre-construction engineering and design activities. The optimum level funding for FY 2007 is \$9.4 million CG if a new start were enacted, otherwise \$4 million GI to continue preliminary engineering & design". Optimum funding in future years through FY11 is \$12.2 million FY08, \$10.3 million FY09, \$26.1 million FY10, and \$42.3 million FY11.

IMPACT OF CONSTRAINED FUNDING. The Interim Feasibility Report, dated April 2000, recommended the auxiliary lock extension be complete by 2008. This yields the highest net incremental benefits. With each year of insufficient funding, the schedule for the lock extension completion is delayed. This results in increased risk of closures of the main chamber, yielding additional transportation delay costs. The current schedule for completion of the lock extension is 2013, already five years after the recommendation of the Interim Feasibility Report.

Source: US Army Corps of Engineers, February 21, 2006