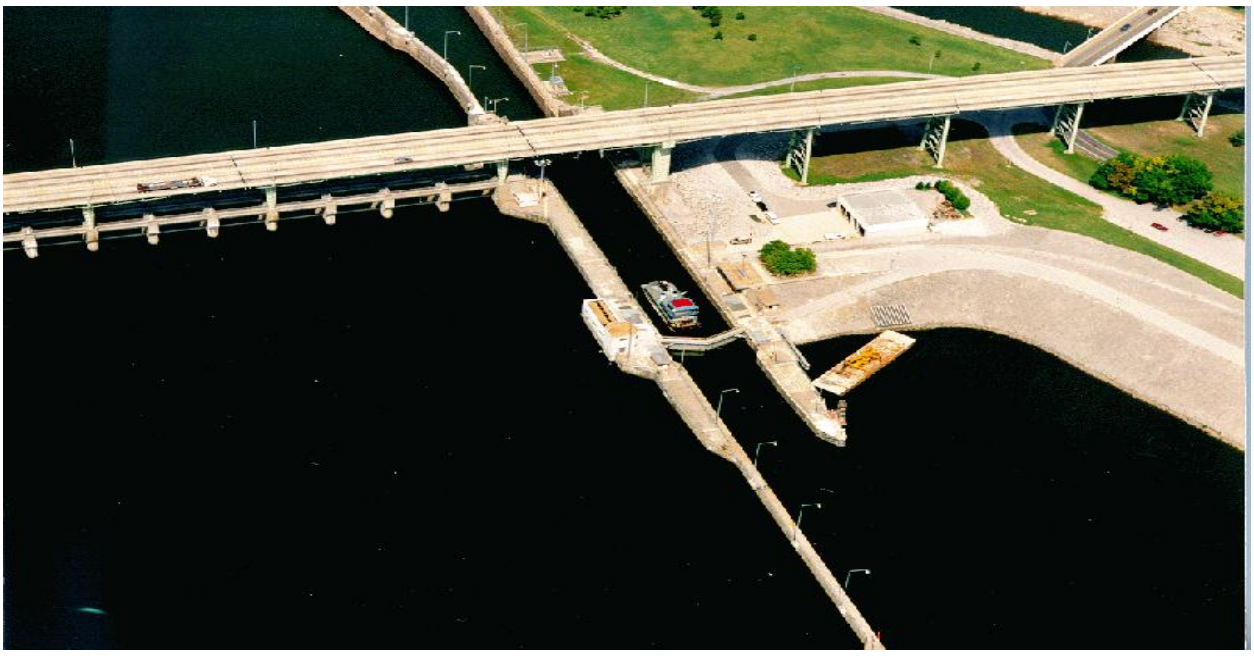
WATERWAYS COUNCIL, INC.

Chickamauga Lock & Dams



Waterways Council, Inc. is the national public policy organization advocating a modern and well-maintained national system of ports and inland waterways.

Location	The Chickamauga Lock replacement project is located at Mile 471 of the Tennessee River in Chattanooga, Tennessee
Existing Structures	The project consists of a new 110’ X 600’ lock to be located riverward of the existing 60’ X 360’ lock and immediately downstream of Chickamauga Dam.
Annual Tonnage and Projected Traffic Growth	Commodities traversing Chickamauga Lock have origins or destinations in 17 states in the South, Midwest, and Mid-Atlantic regions, traveling an average 1,400 miles. From 1997 to 2003 annual tonnage passing through the lock has ranged from 1.9 to 2.7 million tons.
Summary of Problems	The new lock is required because of structural deficiencies of the existing lock resulting from physical expansion of the concrete structure. This phenomenon of concrete growth was observed soon after initial construction and is caused by reaction between the alkali in the cement and the rock aggregate. Even with costly aggressive maintenance procedures, this expansion threatens the structural integrity of the lock and limits its life. Engineering reliability studies indicate that the probability of an event with unacceptable, possibly even catastrophic results, increase significantly after 2010.
Corps of Engineers Actions	The FY 09 budget provided $42 million to continue construction. An additional $52.4 million was provided through stimulus funding in FY 09 and FY 10. Unfortunately, the FY 10 Appropriation was only $1 million and $0 was requested by House and Senate Appropriations and the President’s budget.

Chickamauga Lock and Dam

Project Description

The Chickamauga Lock replacement project, located at Mile 471 of the Tennessee River in Chattanooga, Tennessee, was authorized by the Energy and Water Development Act of 2003. The project consists of a new 110'x 600' lock to be located riverward of the existing 60'x 360' lock and immediately downstream of Chickamauga Dam. In addition, local roadways and utilities adjacent to the lock will be relocated to provide access to the site for construction. The major contracts for the project include the road and bridge relocations, construction of the cofferdam and construction of the lock. The new lock is required because of structural deficiencies of the existing lock resulting from physical expansion of the concrete structure. This phenomenon of concrete growth was observed soon after initial construction and is caused by a reaction between the alkali in the cement and the rock aggregate. Even with costly aggressive maintenance procedures, this expansion threatens the structural integrity of the lock and limits its life. Engineering reliability studies indicate that the probability of an event with unacceptable, possibly even catastrophic results, increase significantly after 2010. At some point, the probability of such an event will cause TVA's Dam Safety Officer to permanently close the lock to protect the public downstream and TVA's investment in other features of the project.

Transportation Importance to the System

Chickamauga Lock is the gateway to the upper Tennessee River serving 318 miles from Chattanooga to Oak Ridge and Knoxville, Tennessee. This reach of the river provides navigation to the U.S. Department of Energy's facilities at Oak Ridge and two nuclear power plants that serve the region. Commodities traversing Chickamauga Lock have origins or destinations in 17 states in the South, Midwest, and Mid-Atlantic regions, traveling an average 1,400 miles. From 1997 to 2006 annual tonnage passing through the lock has ranged from 1.3 to 2.7 million tons. Traffic forecasts by the Corps of Engineers' Navigation Center indicate that tonnage levels will grow to about 11.3 million tons by 2060. Chickamauga Lock has an average locking time per tow of almost 8 hours, the highest in the Ohio River System. Only four locks in the System have a higher average delay time and none have a higher processing time.

Project Funding History

The project is cost-shared 50/50 with the Inland Waterways Trust Fund. The total project cost is estimated to be $365 million with an assumed lock completion date of 2013. Delays beyond 2013 will increase this cost estimate. Average annual benefits are $5.7 million (Oct 04 dollars). The project has a benefit-to-cost ratio of 1.5 to 1 and a remaining benefit to cost ratio of 1.4 to 1 (7 % interest rate). Construction began in July 2004 with relocation of utilities. The Cofferdam contract was awarded in September 2006 with completion in late 2009. The FY 09 budget provided $42 million to continue construction. An additional $52.4 million was provided through stimulus funding in FY 09 and FY 10. Unfortunately, the FY 10 Appropriation was only $1 million and $0 was requested by the House and Senate Appropriations and the President's budget for FY 11.

Chickamauga Lock and Dam

Impact of Constrained Funding

The primary impact of constrained funding is the risk of lock closure due to safety concerns. Even with current aggressive maintenance, delays and lengthy closures will occur, ultimately resulting in traffic leaving the waterway. As funding becomes constrained, even at a construction rate of $40 million per year, the project's completion will extend to 2016. At a construction rate of $20 million per year, the project will be delayed to 2024, resulting in a cost increase of over $40 million.

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