



**US Army Corps
of Engineers**
Rock Island District

Information Paper

13. LaGrange – New 1200' Lock

Upper Mississippi River System - Navigation and Ecosystem Sustainability Program

Contacts

Toby J. Hunemuller, Team Leader
Ph. (309) 794-5754 fax.(309) 794-5698
toby.j.hunemuller@usace.army.mil

Scott D. Whitney, District Project Manager
Ph. (309) 794-5386 fax (309) 794-5710
scott.d.whitney@usace.army.mil

Location/Description

The program area comprises the Upper Mississippi River System, as defined by Congress in the Water Resources Development Act of 1986 (WRDA 1986), which includes the Upper Mississippi River from Minneapolis, Minnesota, to Cairo, Illinois; the Illinois Waterway from Chicago to Grafton, Illinois; and navigable portions of the Minnesota, St. Croix, Black and Kaskaskia Rivers. This multi-use resource supports an extensive navigation system (made up of 1200 miles of 9 foot channel and 37 lock and dam sites), a diverse ecosystem (2.7 million acres of habitat supporting hundreds of fish and wildlife species), floodplain agriculture, recreation and tourism. Based on the recommendation of the recently completed UMR-IWW System Navigation Feasibility Study that examined system needs over the next 50 years, the Navigation and Ecosystem Sustainability Program (NESP) was implemented to achieve the dual purposes of UMRS ecosystem restoration and navigation improvements.

One of the NESP components is a large program of navigation efficiency projects; it is recommended that UMR LaGrange Lock will receive a new 1200 ft lock. LaGrange Lock is part of the Illinois Waterway System that includes 8 locks and stretches 327 miles across the state of Illinois from Lake Michigan to the Mississippi River, with confluence at Grafton, Illinois. It is the last lock encountered on the system before reaching the Mississippi.

The new lock at LaGrange is one of a system of seven proposed locks; five at UMR Locks 20-25, and one at each of LaGrange and Peoria on the Illinois Waterway. The new LaGrange Lock will be constructed landward of the existing 600' lock. When combined with other proposed new locks, congestion on the navigation system will be reduced.

In order to accommodate the landward lock there will be significant channel, approach and site work. The current project cost estimate is \$261,300,000 (2004 dollars).



Problem Statement

LaGrange Lock & Dam was constructed in the 1930's and is 600 ft long, while the prevailing 15-barge tow size has a length approaching 1,200 ft long. As a result, tows must lock through using a two-step process, which takes approximately 1.5 to 2 hours compared to only 0.5 to 1 hour for a one-step process through a 1200 ft lock. Under the current conditions, navigation traffic growth will result in increases in waiting times at the 600 ft locks, creating lock delays that will increase exponentially each year that new 1200 ft locks are not in place.

Current Status

FY07 funds were used to continue gathering existing conditions data, develop hydraulic modeling, prepare contract scopes of work, continue lock planning, develop biological resource work plan, and begin planning and construction of the physical navigation model at ERDC. FY08 funds will be used to calibrate numeric hydraulic models and evaluate alternatives. Construction of the physical model will resume if additional FY08 funds become available.

Authority

The Water Resources Development Act of 2007, TITLE VIII Upper Mississippi River and Illinois Waterway System, authorized the project.