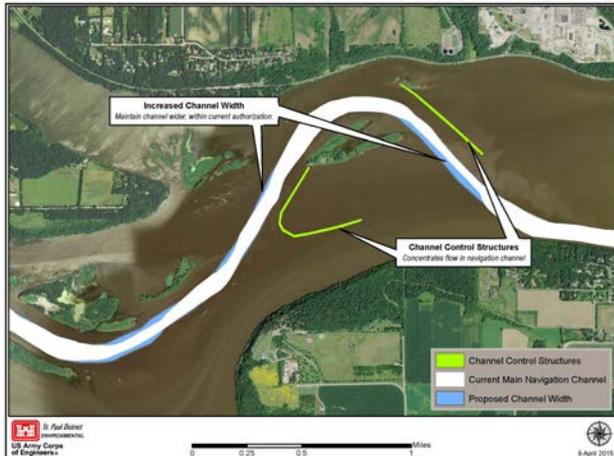




US Army Corps  
of Engineers  
St. Paul District

# Information Paper

## Navigation: Lower Pool 2 Channel Management Study Boulangier Bend to Lock and Dam 2, Hastings, Minnesota



*Lower Pool 2 – Tentatively Selected Alternative – Increased Channel Maintenance with Channel Control Structures*

### Contact

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### Location/Description

The U.S. Army Corps of Engineers, St. Paul District is responsible for maintaining 244 miles of the Upper Mississippi River 9-foot channel navigation project from the head of navigation at Minneapolis, Minnesota, to Guttenberg, Iowa.

Pool 2 is the navigation pool created by the construction of Lock and Dam 2 at Hastings, Minnesota, at river mile 815.2. The pool is approximately 32.4 miles long and stretches upstream to Lock and Dam 1 in Minneapolis at river mile 847.6 (often referred to as the Ford Dam). Between river miles 818 and 820, the navigation channel switches from one bank of the river to the other and back again creating a near 90-degree bend in the river at mile 819. Navigation in the pool is maintained by dredging, the use of channel control structures such as wing dams, closing dams and bank revetments, snag removal, accurate channel marking, and close monitoring of conditions.

### Issues

It is increasingly difficult to maintain the 9-foot navigation channel in lower Pool 2, specifically between river miles 818-821. Lower Pool 2 has been a high frequency dredging location.

- Historically required dredging once every 3 years.
- Since 2006, dredging has occurred almost annually.
- Between 2006 and 2015 the Corps witnessed a 46 percent increase in dredging volume compared to the historic average, increasing annual dredging costs in this reach.
- Placement site capacity has been reduced leading to accelerated unloading requirements.

The authorized channel width in Pool 2 is 200 feet, compared to 300 feet for areas downstream from Lock and Dam 2. The U.S. Coast Guard has expressed concern regarding the difficulty and expense to maintain the aids to navigation (buoys and day marks) in this stretch of Pool 2. The commercial navigation industry has experienced difficulty navigating the channel in this reach due to the sharp bend, shoaling, and the open windswept area. There have been 66 groundings reported in this reach from 1990 to 2015. This has resulted in delays from channel closures, reduced tow sizes, and increased transport costs.

### Status

The tentatively selected alternative is to increase the channel width (via dredging) and add two channel control rock structures. The final Feasibility Study will be completed this winter. Plans and specifications and constructions contract award is scheduled for FY17.

### Authority

The 9-foot navigation channel was authorized by the Rivers and Harbors Act of 1930. It is 100-percent federally funded with the exception of short segments in Minneapolis and on the Minnesota River.

### Fiscal

The estimated Federal cost of this study and the construction is approximately \$9 million.