



**US Army Corps  
of Engineers®**  
New Orleans District

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New Orleans District***

***Morganza Floodway Interim Water Control Manual  
Proposed Clarifications to the Standing Instructions***

***19 August 2014***

For more information and copy of the Standing Instructions, please visit:  
[http://www.mvn.usace.army.mil/Missions/MississippiRiverFloodControl/  
MorganzaFloodwayOverview.aspx](http://www.mvn.usace.army.mil/Missions/MississippiRiverFloodControl/MorganzaFloodwayOverview.aspx)

## Background

Operation of the Morganza Floodway in 2011 for only the second time in its history yielded several valuable lessons learned for future operations. These lessons are being incorporated into an Interim Water Control Manual for the Morganza Floodway, with a full Water Control Manual update to be completed at the conclusion of the Mississippi River Flowline Study, which is ongoing.

Since construction of the Morganza Control Structure in 1955, the bathymetry of the Mississippi River has changed, which affects how the water stages in the river correspond to its flow rate. This change was evident during the historic flood of 2011 when water levels exceeded the designed operational stage for the Morganza Control Structure prior to reaching the operational trigger of 1.5 million cubic feet per second of discharge past the floodway. Based on this event, the Corps needs to clarify the standing instructions for emergency operations to ensure the ability to operate the structure as designed.

The safety of the public is the Corps' top priority and is the driving force for all of the Corps' emergency response and operational decisions. The refinements made to the Interim Water Control Manual for the Morganza Control Structure are only applicable during emergency situations, such as high water events on the Mississippi River, in order to ensure that the Corps can safely operate the flood control structure and the system as a whole. The Corps is committed to coordinating all emergency operation efforts with our federal, state and local partners before, during and after such events.

The Corps is a learning organization, and will continually use lessons learned to better refine our ability to safely pass the high water events of the Mississippi River watershed through the Mississippi River and Tributaries System.

## Proposed Clarifications to the Standing Instructions for the Morganza Floodway Interim Water Control Manual

- The Morganza Control Structure shall be operated to ensure that the water stage on the river side of the structure does not exceed 57 feet when there is a 10-day forecast of a Mississippi River discharge of 1,500,000 cubic feet per second and rising.
- The Morganza Control Structure shall be operated to limit the rise of water in the floodway to one foot per day for the first three days of operation, as measured at the northeast corner of the East Atchafalaya Basin Protection Levee. This is a clarification of an existing requirement in the present approved Water Control Manual. Meeting this requirement will typically require a small initial structure opening three days in advance of full operation, though exact operations will depend on river conditions.
- After Floodway operation, some structure bays may be left open to help drain the forebay area more quickly, so long as stages in the Floodway are not permitted to increase. This is also a clarification of an operation that is allowed in the existing approved manual.
- The gate opening/closing sequence will be changed to decrease scour damage in the tailbay.

## Effects of Proposed Clarifications to the Standing Instructions

- The proposed changes clarify operational decision-making, but do not allow operations outside the flexibility that already exists with the present approved Water Control Manual. Actual frequencies of

operation will depend on the frequency of future flood events and the strategies used to fight those floods.

### Technical Basis for Clarifications to the Standing Instructions

- The Mississippi River in the vicinity of the Morganza Control Structure has undergone geomorphic and other changes over time that have resulted in higher water levels for a given river flow rate. These changes increase the frequency of high water levels that stress the Morganza Control Structure and the Mississippi River and Tributaries system as a whole.

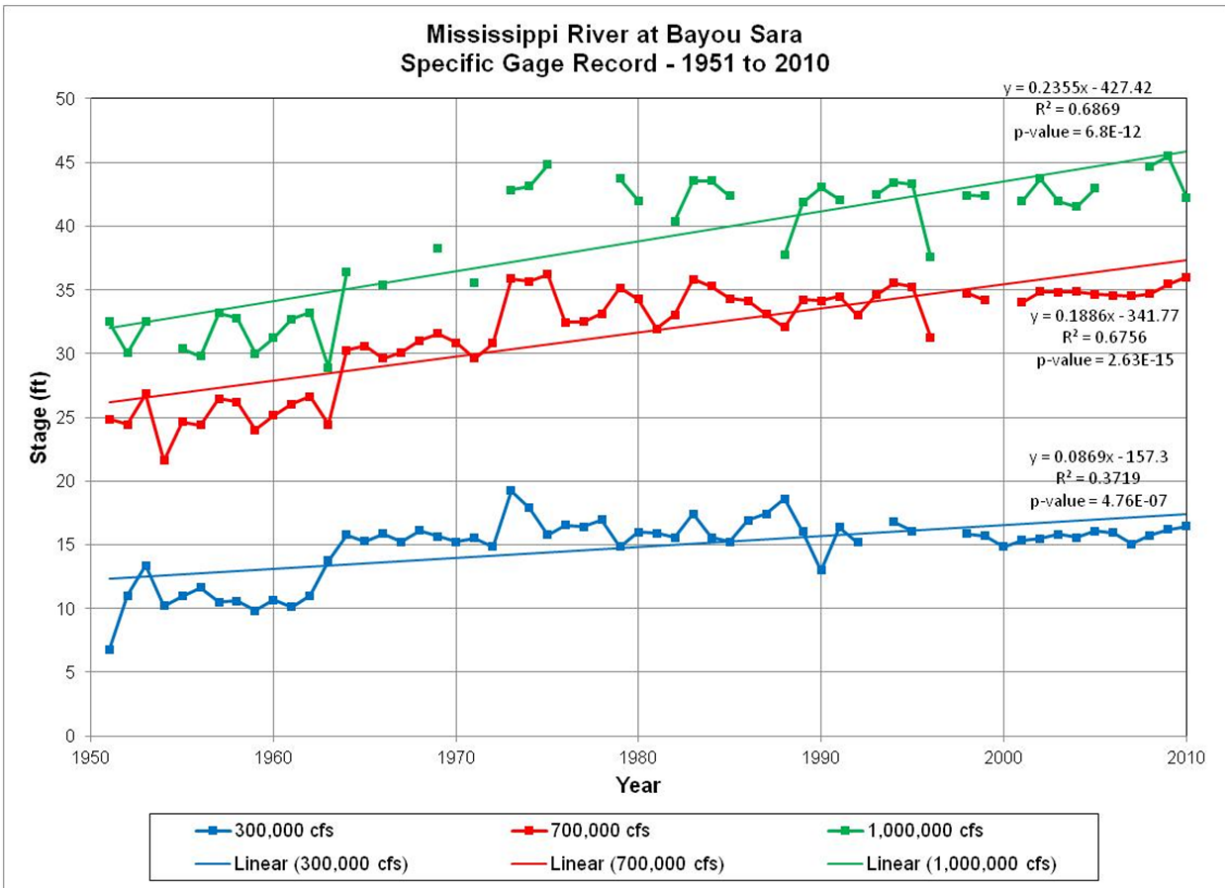


Figure 1. Specific-gage analysis for the Mississippi River at Bayou Sara, LA. Stages have increased since 1950 for river flows of approximately 300,000 cubic feet per second (cfs), 700,000 cfs, and 1,000,000 cfs.