



US Army Corps of Engineers

# OPERATION MAKE SAFE PROJECT UPDATE Oct. 31, 2011

## Birds Point - New Madrid Floodway Missouri

**New Madrid Project Office**

**Memphis District**

### Schedule

Authorization to proceed:	June 15, 2011
Began construction:	June 16, 2011
Original required completion:	Nov. 30, 2011
Current required completion:	Nov. 30, 2011
Current scheduled completion:	Nov. 30, 2011
- Upper crevasse (Phase I):	Nov. 16, 2011
- Center crevasse:	Nov. 30, 2011
- Lower crevasse:	Oct. 9, 2011



### Progress

Location:	Scheduled Progress:	Actual Progress:
Upper crevasse (Phase I):	86%	95%
Center crevasse:	51%	55%
Lower crevasse:	100%	98%



**A bulldozer operator spreads clay landside of the levee at the upper crevasse Oct. 26.**

### Funding

Expended to date:	\$8,477,000
(As of Oct. 20)	

### Scope of work

During activation of the Birds Point - New Madrid Floodway, three artificial crevasses in the levee were opened to allow floodwater to flow through the Floodway, reducing water elevations and pressure on the flood control system. Phase I of this project repairs the levee at the three crevasse locations to provide interim protection to a flood elevation of 51 feet on the gage at Cairo, Ill. (39 feet on the gage at New Madrid) by Nov. 30. Phase II improves protection at the upper crevasse to 55 feet on the gage.

The upper crevasse is located at Birds Point, near the confluence of the Mississippi and Ohio rivers. Repairs are required for 9,000 feet of levee at this location. Work here includes filling five scour holes back to level grade, repairing four levee segments and constructing one segment realignment.

The center crevasse is located near Seven Island Conservation Area. Repairs are required for 800 feet of levee at this location. A scour hole developed here, connecting with the existing 1937 scour hole. Work here includes separating the two scour holes, filling the new scour hole using sand dredged from the river bottom, and repairing the levee to the interim grade.

The lower crevasse is located near Donaldson Point Conservation Area. Repairs are required for 4,700 feet of levee at this location. Work here includes removing excess water at the foundation, and repairing the levee to the interim grade.

**Current Progress**

*The District is now authorized and funded to continue improvements at the upper crevasse to 55 feet on the Cairo gage as part of Make Safe. Earthwork resumed Sunday after a three-day delay due to rain.*

**Upper crevasse:** A Corps of Engineers crew consisting of 29 personnel and 24 pieces of heavy equipment is on site here, at two nearby borrow sites, and at a maintenance facility. Survey results indicate that the entire 9,000 feet of levee is at or above a (Cairo) gage elevation of 51 feet. Crews continue restoring the bed of clay on the land side of the levee in order to prevent seepage. The District, with assistance from Levee District No. 3 of Mississippi County, Missouri, acquired additional borrow material at Birds Point. The close proximity of the clay will speed repairs and lower transport costs to raise the levee to an elevation of 55 feet on the Cairo gage.

**Center crevasse:** A Corps of Engineers crew consisting of 14 personnel and 18 pieces of heavy equipment is on site here and at a nearby clay borrow site. The crew resumed placing clay over the dredged sand Sunday to prevent seepage and serve as the foundation for the repaired levee segment. The scour hole is filled with sand and dredging ended Monday at 8:30 a.m. The dredge Iowa pumped more than 300,000 cubic yards of sand into the scour hole in 24 days of dredging. Next, the crew will cap the sand with clay and reconstruct the levee.

**Lower crevasse:** Interim repairs are complete and Corps crews have demobilized from the site. The two percent of work remaining is seeding the levee with grass to prevent erosion.

**Blasting agent removal:** Desensitized blasting agent remains stored at the upper and lower crevasses. The results of a laboratory characterization confirmed the blasting agent is not an explosive risk. The blasting agent has all been transferred into shipping containers. A contractor is making final preparations for shipping before removing the material to a disposal site in central Illinois.

**OPERATION RESTORE**

The follow-on project to Operation "Make Safe", called Operation "Restore", will reconstruct the Floodway system to the pre-operational level of protection. The construction schedule is contingent on the availability of funding.



**The dredge Iowa pumps sand into the scour hole at the center crevasse Sunday. Dredging ended Monday.**



**A contractor at the upper crevasse transfers desensitized blasting agent into USDOT-authorized shipping containers (at left) Oct. 28.**



**Clay is spread at the center crevasse Oct. 27 to cover the dredge sand that was placed in the scour hole. This clay will form the foundation of the levee and serve as a landside seepage barrier.**