SIKESTON, MO. — With a rapid series of explosions late Monday that could be felt for miles through the Missouri soil, the Army Corps of Engineers successfully blew out some 11,000 feet of Mississippi River levee, taking dangerous pressure off the river above.

But now the risk is flowing downstream.

Waters released into the 130,000-acre floodway by the corps will soon re-enter the Mississippi near New Madrid, through two 5,500-foot stretches blasted out over two days at the lower end of the basin, and the crest will continue to roll on, with the river expected to match or beat its previous record heights at many points along the way.

For the people responsible for trying to manage the unmanageable river, each success is replaced by new worries.

“We’re just at the beginning of the beginning,” said Maj. Gen. Michael J. Walsh of the Army Corps of Engineers and president of the Mississippi River Commission.

His decision to inundate the 130,000 acres within the spillway’s basin almost certainly saved the town of Cairo, Ill. The river had reached a record 61.7 feet at Cairo before the explosion and was predicted to rise more than a foot further.

The river fell to 60.1 feet by Tuesday afternoon. But, General Walsh warned, the floodway only offered temporary relief and the water levels upstream could soon rise again. “The crest will come back up,” he added. “We’ll see where we go from there.”

The people whose land was under all that water watched with wonder and dismay.

“She’s coming across here now, ain’t she?” Ed Marshall, 57, a farmer, said as he arrived Tuesday to get an early sense of the damage with his insurance agent atop the interior levee that forms the western boundary of the spillway. “There’s nothing I can do about it. It’s in God’s hands.”
Mark Dugan, 59, used binoculars to find the top of his recently remodeled farmhouse poking out, like an iceberg, from the fast-moving water. A shed had been washed into a stand of trees.

“We just question the way they did it,” he said of the Army Corps of Engineers. “Actually we even question the fact they did do it.”

Gov. Jay Nixon visited the emergency command center here on Tuesday, declaring, “It’s a lot of water out there, folks.” He was not talking just about the river, but also about communities farther inland, where days of rain had saturated and covered the ground.

Mr. Nixon pledged to commit resources to restoring the area. “It goes beyond rebuilding the levee,” he said. “It’s about rebuilding the farm economy here.”

Carlin Bennett, the presiding commissioner for Mississippi County, said his community’s biggest fear was that the plan to use the spillway would ultimately have little effect: “You blow the levee, it ruins us and you don’t get any relief up or downstream.”

Meanwhile the surging river, and the flooding it is almost certain to cause, moved south. More than 40 percent of the nation’s waters drain into the Mississippi, and relentless rainfall is creating formidable challenges.

“We’re going to fight this river all the way down to the Gulf of Mexico,” said Col. Vernie L. Reichling Jr., who commands the Memphis District of the corps. He estimated that the corps had already spent $5 million fighting the flood in his district. “I don’t see this letting up,” he said, adding that he expected to be fighting the flooding into next month.

While the main defenses along the Mississippi are expected to hold up under the onslaught, flooding is likely as water backs up into the rivers and tributaries that feed into the Mississippi, and tests “non-federal” levees that line those waterways.

“The water can’t drain into the Mississippi because the river levels are so high,” said Jeff Graschel of the Lower Mississippi River Forecast Center, part of the National Oceanic and Atmospheric Administration. And while the federal levees are high and strong, “anything that’s non-federal is a different story,” he said.

Current and former corps officials said that they expect almost every part of the system that was designed to divert floodwaters along the Mississippi River and Tributaries Project to come into play, including backwater areas at the mouths of the St. Francis, White, Yazoo and Red Rivers. Their levees are designed to allow floodwaters to course over the top when the river rises too high.
Farther down the river, there is the Old River Control Structure, which was built to keep the Atchafalaya Basin from capturing too much of the Mississippi's flow.

Flooding in 1973 undercut the enormous structure and threatened to wash it away. But improvements in subsequent years and additional facilities have lessened the risk to an extent that experts have expressed little concern about it. They also suggested that it might serve to temporarily divert more of the Mississippi’s waters in the worst of the flood.

Below the Old River Control Structure come two additional spillways — the Morganza and Bonnet Carré — that can release water from the Mississippi’s flow.

The corps is likely to open the gates on both of those structures. The Morganza can send 600,000 cubic feet of water per second down the Atchafalaya Basin; it has not been used since the floods of 1973.

The Bonnet Carré spillway, about 30 miles above New Orleans, can drive 250,000 cubic feet per second into Lake Pontchartrain, which can then empty into the gulf. It has been used nine times between 1937 and 2008.

“It's like a symphony,” said Charles A. Camillo, a historian with the Mississippi Valley division of the corps. “You’ve got a lot of different instruments being played at the same time.”

Don T. Riley, a former deputy chief of engineers for the corps and a retired major general, expressed confidence in the ability of the Mississippi’s flood control systems to deal with tremendous volumes of water.

But he said tributary flooding was a continuing concern, and parts of the main river control system had not yet been completed to the maximum height and strength called for in the corps’ plans.

Though the system is hardy and resilient, Mr. Riley said, “there's going to be big concern all the way down the river — if more rains come, all bets are off.”

The power of nature to overcome the best defenses should never be underestimated, said George C. Grugett, the executive vice president of the Mississippi Valley Flood Control Association near Memphis.

“People don’t understand how mighty this old Mississippi is,” he said, “and how much damage it can do when it goes on a rampage like this.”
A. G. Sulzberger reported from Sikeston, and John Schwartz from New York. Malcolm Gay contributed reporting from Cairo, Ill.