



'Deadly funnel' of MRGO aided in parish flooding

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CHALMETTE -- Inches of muck on the floor sucked at Doris Stendlein's boots as she walked into the front room of her house.

The floor-length mirror by the front door is in one piece, but the refrigerator lies diagonally on the kitchen floor. Everything is covered in marsh grass and black mud.

"It's silly," she said, wiping away tears. "I should be over this by now. It's been five weeks."

When Hurricane Katrina hit Louisiana on Aug. 29, a storm surge of 15 feet to 20 feet pushed through canals and over levees to flood most of St. Bernard Parish.

One of those canals is the Mississippi River Gulf Outlet, a navigation channel built in the 1960s. Commonly called "Mr. Go" and referred to as the MRGO, it bisects the parish and connects the Gulf of Mexico with the city of New Orleans.

Many St. Bernard residents have a simple answer for why Katrina destroyed so much of their parish: Mr. Go.

Unfortunately, it's not that simple, experts assert.

Hassan Mashriqui, an assistant professor with the LSU Hurricane Center, said although the Mississippi River Gulf Outlet can move a lot of water into the area very quickly, closing it wouldn't have prevented St. Bernard's flooding.

Preliminary data from computer modeling and subsequent observations of Hurricane Katrina's effect on the landscape seem to show that the MRGO is just part of the equation.

The MRGO channel to the south and the Gulf Intracoastal Waterway to the north create a funnel from the Lake Borgne area into the much smaller Industrial Canal in New Orleans.

That funnel effect, caused by the water channels and the levee systems built along the channels' banks, can direct a large amount of water into upper St. Bernard and New Orleans.

"That is the killer blow," Mashriqui said. It's not a new discovery. Flooding from Hurricane Betsy in 1965 followed the same path, he noted.

Mashriqui said that even if the levees damaged by Hurricane Katrina were built up to their pre-storm height and strength, a hurricane next season would have the same effect. "The only way to describe it is a deadly funnel, and this year it proved its deadliness," he said.

Short-term solutions involve finding a way to close off the intersection of the Gulf Intracoastal Waterway and the MRGO. Long term, he said, engineers should start looking at ways to build a curving structure that can block the funnel action before it affects the Lake Borgne area.

"Blocking one channel won't help. You have to block the throat," he said.

Computer models show that the funnel effect can increase the storm surge elevation by 20 to 40 percent.

Without that magnification, Katrina's storm surge wouldn't have flooded nearly as much of St. Bernard and wouldn't have caused the 9th Ward flooding, he said.

Most experts agree that the MRGO increased damage not only by moving in more water, but also by destroying through the years the marsh and cypress forests that could have dampened the storm surge.

So, could the damage to St. Bernard have been reduced if the channel didn't exist or had been shut down in some way, as residents and politicians in the area have been asking for years?

The answer is no one really knows yet.

John Day, professor emeritus in LSU's department of oceanography and coastal sciences, said scientists will run computer models using the Katrina storm information against the backdrop of where the marshes and cypress used to be. That might provide some answers.

Day said that before the MRGO was built, a fairly dense cypress forest stretched from Orleans Parish south through parts of St. Bernard. That forest started dying soon after the MRGO was built because the channel brought more saltwater into the area. Cypress can stand only so much saltwater.

"Would that have made a difference? We don't know that either," Day said. "That's something people will be looking into."

The MRGO also contributed to wetlands erosion and marsh loss in the area. Day cited a rule of thumb -- every mile of marsh can reduce storm surge by a foot.

Whether that would have helped in Katrina is yet another unknown.

"The storm surge in that area was 18 to 20 feet, and the levees are between 12 and 15 feet," Day said.

The question is whether the marsh that existed in the area before the MRGO would have been enough to reduce the storm surge by 4 or 5 feet.

St. Bernard residents have long complained that the channel was a disaster waiting to happen.

In May 2004, Southeastern Louisiana University conducted a poll of 407 St. Bernard voters.

They were asked, "What do you think is the most important problem facing the people of St. Bernard Parish today?"

In response, 7.1 percent said closing the MRGO. The first two concerns were illegal drugs and jobs.

State Sen. Walter Boasso, a Chalmette Republican, said last week that he thinks some flooding would have occurred even without the MRGO, noting the storm surge came over the Mississippi River levee, too.

It might not have been as bad if the MRGO had been closed off, he added.

But "closing" the MRGO doesn't mean filling in the channel, Boasso said.

"You don't have enough mud in the whole area to fill it in," he said.

Instead, dredging the channel could be halted and "speed bumps" could be put on the bottom of the channel to slow future storm surges.

Although the U.S. Army Corps of Engineers has taken the heat for keeping the MRGO open, Boasso said it would actually take an act of Congress to modify the designation of the channel to allow changes.

"The Army Corps of Engineers has been beaten up over this for a long time," Boasso said.

Proponents of closing the MRGO point out that the channel never lived up to promises that it would become a new industrial job producer and economic force for the parish.

"Economically, it doesn't make sense anymore," Boasso said.

Only about 14 ships a month were using it before Katrina hit, he said.

The MRGO has damaged the marsh, the landscape and increased saltwater intrusion into the area, he said.

"Now," Boasso added, "we've lost people's lives and whole communities."