Sand berms to be built to hold off oil from Louisiana coast

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Crews on ships work on skimming and collecting oil near the source site of the Deepwater Horizon disaster in the Gulf of Mexico near Venice, Louisiana. US officials were poised Saturday to begin building massive sand barriers in the Mississippi Delta in a last-ditch bid to keep oil from BP's gushing Deepwater Horizon well from reaching Louisiana's fragile wetlands.

US officials were poised Saturday to begin building massive sand barriers in the Mississippi Delta in a last-ditch bid to keep oil from BP's gushing Deepwater Horizon well from reaching Louisiana's fragile wetlands.

Coast Guard Admiral Thad Allen on Thursday approved plans to build a six-foot (1.82 meters) high sand berm at Scofield Island, around 10 miles (16 kilometers) southwest of the port of Venice.

The berm will be paid for by British Petroleum or by a federal fund set up in 1986 to help states hit by an oil spill, and will be a test-run to see if a plan of Louisiana officials to build a string of sand barriers along the coastline to keep the oil away will actually work.

Local officials, including Governor Bobby Jindal, have been almost begging for permission to start building the berms by dredging sediment from designated areas in the Mississippi Delta and dumping it to make man-made barrier islands.

Billy Nungesser, president of Plaquemines Parish, which juts into the marshlands south of New Orleans, said this week he would build his own berms starting Saturday if the federal government did not approve the permits.

Louisiana Senator Mary Landrieu hailed the berm plan as "a significant and achievable first step toward minimizing damage to Louisiana's coast" from the oil.

But environmentalists have issues with berms, fearing the solution officials are proposing to hold back the oil from Louisiana's unique marshlands, if not done right, could do more harm than good to the Mississippi Delta, and might not do the job at all.

"Berms are being seen as a kind of silver bullet, a magic fix to prevent oil from coming in," Lake Pontchartrain Basin Foundation scientist John Lopez told AFP.

"But the more they've been studied, the more it's been realized that they're really only a partial fix, and not a very good one; but then nothing else is either," he said.

The original berm-building plans submitted by Louisiana officials in

early May would have involved taking sand from a mile out in the Gulf of Mexico and pumping it closer in to shore to build manmade barrier islands.

That plan was "being pushed by the dredging companies with no science involved," said coastal scientist Angelina Freeman, one of the experts who told AFP that taking sand so close to the shore would promote coastal erosion, already a huge problem in Louisiana.

According to Lopez, the plan approved this week would take sediment from a distributary near Pass a Loutre in the Mississippi Delta that has silted up.

But the problem with taking sediment from the Mississippi Delta to make berms is that the bed of the delta is mainly mud.

"Mud is not good for making berms because it's very fine, and fine material won't stack," said Lopez.

"When you hydraulically pump sediment that's fine, it just bleeds out and flows away."

Even if it were possible to build a berm with mud, "any kind of tidal action would make it disperse," said Freeman.

Oil could easily become trapped in and absorbed by the mud, which would prevent it from weathering and breaking down, the scientists said.

Berms have to be built in such as way as to not block off tidal inlets, because narrower inlets would increase the velocity at which water is channelled into the delta area, which could mean that the oil is driven even further into the fragile marshlands than without the berms.

Berms can also alter water salinity which would affect the fragile marshlands.

The scientists said the plan approved by the Coast Guard was not perfect but better than the original plan which would have had an extensive network of berms running across the mouth of the Mississippi River.

The original plan put forward by Jindal would have "fixed only a part of the system instead of looking at it as a whole," said Freeman.

The plan approved Thursday would work with the natural system of the delta region by putting berms in places where barrier islands have been broken down naturally, and was "an option we can live with," the experts said.