

Sand Berm Approved to Fight Oil; Scientists Skeptical

by Erik Stokstad on May 28, 2010 1:42 PM
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The state of Louisiana is poised to begin a large experiment in blocking oil from reaching its fragile wetlands. On 27 May, the Army Corps of Engineers granted an emergency permit to build several sand berms along 70 kilometers of barrier islands. Experts are concerned that the project will be neither durable nor effective.

Oil is much easier to clean from a sandy beach than from a wetland, where removing it would probably cause additional harm to the fragile ecosystem. But Louisiana's barrier islands—long skinny beaches that are dozens of kilometers offshore—have been greatly damaged by storms. In some places, the Chandeleur Islands have been eroded into shallow shoals.

On 11 May, Louisiana Governor Bobby Jindal proposed that engineers build a 2-meter-tall berm in front of the islands. In addition to catching oil, the berms would also shunt oily waters towards tidal inlets, making it more efficient for booms and boats to collect the oil. Jindal proposed 160 kilometers of berms at an estimated cost of \$350 million—to be paid for by BP.

After the state applied for an emergency permit from the Army Corps of Engineers, other federal agencies raised objections. The dredging might actually exacerbate erosion of the islands, for example. That would mean that much of the 68 million cubic meters of sand—a precious commodity needed for coastal restoration—would be lost. In addition, breeding birds might be harmed.

The permit issued yesterday is a compromise, granting permission to build 72 kilometers of berm. And sand can only be gathered from a channel inside the mouth of the Mississippi River, which would eventually be replenished by the river. Guidelines for avoiding harm to endangered species apply. The federal government will front the bill for one section of the berm (with hope of collecting from BP), and the state will have to fund the rest. If the project works well, the federal government might fund more work.

Although coastal scientists are relieved that some of the risks have been minimized, many doubt that the berm will catch much oil; it could take 9 months to build. And it could very well wash away quickly. "Even a small storm is going to tear this thing to shreds," says Robert Young, a coastal geologist at Western Carolina University in Cullowhee, North Carolina.