

Prof warns oil spill 'fixes' need review

By Barbara Barrett
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The state of Louisiana wants to build 45 miles of emergency sand berm to fend off oil lapping at its coastline. Western Carolina University geologist Rob Young thinks this is a bad idea.

He offers his warning to viewers of a science blog, to other scientists and to anyone else who will listen.

He writes that the proposed berm could spring leaks, take months to build, cost too much to be worth it and in the end begin to erode all too quickly.

"Even a simple understanding of coastal processes leads one to conclude that this sandy berm could disappear within a few months," Young wrote in an essay recently posted on Yale University's Environment 360 blog.

The BP Deepwater Horizon spill, he continued, could potentially become "one of the greatest ecological catastrophes in history."

Colleagues aren't surprised by Young's tone. William J. Neal, a professor emeritus at Grand Valley State University in Michigan, says Young routinely shares his thoughts, often passionately.

"We're often criticized as scientists for not speaking out on issues," says Neal, who has co-authored papers with Young. "I don't think Rob fits that criticism. I'd put him in the category of crusaders."

And Young's remarks fit the personality of a scientist who says he feels a duty to tell the public about the practical effects of scientific research.

"I like questions that are not too esoteric and ivory-towered," Young says.

Before asking why a guy in the Blue Ridge Mountains is opining at all about beaches in the Gulf of Mexico, consider: Young, 47, has made a career of predicting the movements of barrier islands and warning the public of their vulnerabilities.

He started at Duke University in Durham more than two decades ago as a doctoral student under Orrin Pilkey, an outspoken professor who started the Program for the Study of Developed Shorelines.

After working in other states, Young returned to North Carolina in 1997 as an associate professor of geology at Western Carolina.

Three years ago, Pilkey retired and asked Young if he would take over the Program for the Study of Developed Shorelines and move it to Western Carolina.

Among his projects, Young is leading an effort to dismantle a dam and restore native salmon habitat in Washington state with a \$1.5 million National Science Foundation grant.

He served on a federal study group and testified before Congress about Hurricane Katrina's impacts on the coast. He briefly served on a state legislative commission on offshore drilling, and now serves on the N.C. Coastal Resources Commission's science panel on coastal hazards.

Now, he and his colleagues are tackling the latest coastal disaster. They have flown along the Gulf of Mexico coastline, where they saw massive slicks in the water, struggling birds and trash washed ashore and covered in brown oil.

"Responding to disasters and emergencies is sort of what we do," Young says. "To us, this oil spill is not an identical, but a similar coastal disaster [to hurricanes]."

After going to the scene, Young fears a rush to wrong-headed solutions. He says scientists haven't properly vetted the proposed sand berm.

Scientific review needed

"We had always hoped the Obama administration would be a little scientist-friendly and a little more rigorous and [use] science-based management," Young says. "Right now, it seems to me the decisions being made in regards to coastal engineering proposals are based not on science but on political expediency."

Young suggests the Obama administration put together an advisory panel to conduct emergency scientific reviews. The oil spill will be around for years, he says, and many more coastal engineering ideas will be offered.

He acknowledges, though, that he hasn't contacted his members of Congress or the Obama administration. The problem is so large, so political, he says, that he wouldn't know where to start.

"I don't have the number for Obama's BlackBerry. I'm not a lobbyist," he says. "We continue to do science, and I continue to write about it."

The White House referred questions about a possible scientific panel to the Deepwater Horizon Response Joint Information Center, which referred questions to the U.S. Environmental Protection Agency. The EPA has not responded to questions.

Rob Thieler, a research geologist at the U.S. Geological Society in Woods Hole, Mass., worked alongside Young at Duke in the 1980s and '90s. As a budding scientist, he recalls, Young developed a keen interest in meshing science with public education.

"I think it's fantastic that Rob continues to do that kind of stuff," Thieler says. "From my perspective as a federal scientist, it's really important to raise awareness of public issues and what's really at stake. What are the decisions we have to make? What are the trade-offs?"

Young was born in France, the son of a U.S. Army soldier stationed at the U.S. Embassy in Paris. He spent most of his childhood in southeastern Virginia, where he developed his interest in trying to understand the natural world.

Trying to understand

"I wanted to know how that clam could dig down so fast when I was trying to dig it up, and why the beach sometimes looked one way and sometimes another way when I would go back," Young recalls.

He sees the same curiosity in his own children, boys ages 2 and 5. A few weeks ago, the family spent a vacation on the white, sugarlike sands of the Florida Panhandle.

Young's toddler played in the sand, and his elder child tried to figure out a body board. He and his wife agreed they would return, perhaps again and again.

"The beaches were beautiful, and he was riding a boogie board for the first time ever, and he was just so proud of himself," Young recalls. "I feel like this spill is stealing a little part of my kids' childhood."

The outspoken scientist pauses.

"I'm going to have to figure out how to tell my 5-year-old about this horrible, horrible disaster," he says. "And I still haven't quite figured out how to do it."