



PROGRAM FOR
THE STUDY OF
DEVELOPED
SHORELINES

To: Admiral Thad Allen, USCG (Ret.)
National Incident Commander
Unified Command for the Deepwater Horizon oil spill

Re: An open letter from the community of coastal scientists regarding the massive re-engineering of the Gulf Coast in response to the Deepwater Horizon oil spill

Dear Admiral Allen:

It is time to put a halt to the numerous coastal engineering projects that are both underway and planned as a response to the Deepwater Horizon spill. In summary, these projects will do little, if any, good. At the same time, they have a great potential to change the nature of the Gulf Coast in ways that have not been investigated and are likely to be more harmful than helpful.

As BP appears close to shutting off the flow of oil, we believe that it is also time to shut off the flow of funding and permitting for the large-scale re-engineering of the Gulf Coast. If this is not done, environmental damage resulting from ill-conceived, poorly reviewed coastal engineering may become an additional, and unnecessary, byproduct of the spill.

The Gulf Coast already bears the permanent environmental scars of the unintended consequences of simplistic or expedient “solutions” to complex problems. The loss of Louisiana’s wetlands, at least in part due to the construction of Mississippi River levees, stands out as the prime example of a well-intended action that had devastating consequences.

The United States Army Corps of Engineers has already permitted the emergency construction of 40+ miles of sand berm along the Louisiana coast. This project has been widely questioned by the scientific community and strongly criticized by numerous agencies during permit review. The State of Louisiana has now applied for a permit to build a total of 101 miles of these berms.

The consensus of the scientific community is that this project will not trap oil beyond what could be accomplished using traditional methods. The berm currently being constructed off the Chandeleur Islands is like a mosquito on the back of an elephant. The sand berms will not last (the first berm already suffered significant erosion during a small storm in early July) and it is too far offshore to provide significant obstruction to oil flowing in and out of the estuary. The pace of the project is so slow, that it will never “close the door” to the oil. By the time they get to mile 40, it is likely that much of the earlier constructed berm will be gone.

From a scientific perspective, this project will require effort and resources that could be better used elsewhere. It will not block or collect significant amounts of oil. It will not even provide storm protection for the areas behind the berms (the berms will be too low and too far offshore). There is still time to halt the berm project and refocus our energy on fighting the spill with traditional methods, and re-direct resources to long-term recovery.

Recently, it has been suggested by local and state officials within Louisiana that the berms should be armored to keep them from washing away (as predicted by coastal scientists). Please understand that this kind of brute force engineering would cause drastic changes to the coast. Miles of armored berm would alter tidal flow, change wave and storm surge dynamics, and alter sand flow. These changes could do far more harm to nearby habitat than the oil has or will.

In addition, this kind of engineering will be with us well after the spill has been cleaned up and mitigated. It will hamper our efforts to conduct science-based, well-planned coastal restoration in the Louisiana delta.

We urge you to immediately make clear that armoring the berms is out of the question. It is important to add that, while some may view these armored berms as potential storm protection for coastal Louisiana, the scientific consensus is that they are too far offshore, too low in elevation, and too porous to make a difference.

Finally, please take a step back and consider the cumulative impacts of all the proposed coastal engineering projects for the Gulf shorelines.

BP is paying for the construction of a one and a half mile rock closure of Katrina Cut on Dauphin Island. This structure is also poorly designed and will not last. The developed west end of Dauphin Island is being turned into a large sand pile as sand is moved from the backside of the island to the front leaving gaping holes on the northern side. The project is clearly being carried out for storm protection, not oil spill remediation. Jefferson Parish, Louisiana is also proposing to build several rock inlet closures over strong scientific and agency objections.

Our concern is that the cumulative, long-term impacts of all these projects are not being examined in any scientific or thoughtful way. As individual projects, we believe that they would fail a reasonable scientific evaluation. As a cumulative re-engineering of the US Gulf coast, they become a major problem.

Request for Scientific Review of Cumulative Impacts

We urge you to halt the construction of all existing projects and place a hold on new permits until an expert review of the cumulative impacts of all coastal engineering in response to the spill can be conducted. We are confident that this could be done quickly, and we offer any assistance needed.

There is time to do this. Most of these proposed structures are not blocking oil at the moment. We are having success attacking the spill through traditional means. There is growing faith amongst those scientists working on the ground that fisheries and ecosystems will recover from the spill, given enough time. And, there is a growing concern that all of these proposed engineering projects will do little good, waste resources, and cause greater, long-term harm.

Robert (Rob) S. Young, PhD, PG
Director, Program for the Study of Developed Shorelines
Western Carolina University
ryoung@email.wcu.edu
828-227-3822

Please email for an updated list of signatories:

Andrew Ashton, PhD, Woods Hole Oceanographic Institution
Donald Barber, PhD, Bryn Mawr College
Richard T. Barber, PhD, Professor Emeritus, Duke University
Brian Blanton, PhD, Renaissance Computing Institute, UNC-Chapel Hill
David M. Bush, PhD, PG, University of West Georgia
Andrew Coburn, Associate Director, Program for the Study of Developed Shorelines
Andrew Cooper, PhD, University of Ulster
George Crozier, PhD, Executive Director, Dauphin Island Sea Lab
Joseph Donoghue, PhD, Florida State University
Roy Dokka, PhD, Fruehan Professor of Engineering, Louisiana State University
Charles H. Fletcher, PhD, University of Hawaii
Duncan Heron, PhD, Professor Emeritus, Duke University
Chester W. Jackson, PhD, Georgia Southern University
Joseph Kelley, PhD, University of Maine
Mark Merchant, PhD, Director of Research, Louisiana Environmental Research
Center, McNeese State University
William J. Neal, PhD, Grand Valley State University
Andy Nyman, PhD, Louisiana State University
Randall W. Parkinson, PhD, PG, RWParkinson Consulting, Inc
Leonard Pietrafesa, PhD, North Carolina State University Professor Emeritus
Orrin H. Pilkey, PhD, James B. Duke Professor Emeritus, Duke University
Denise J. Reed, PhD, Director of Pontchartrain Institute for Environmental Sciences,
University of New Orleans
Stanley Riggs, PhD, PG, Professor Emeritus, East Carolina University
Peter Ruggiero, PhD, Oregon State University
Matthew Stutz, PhD, Meredith College
Torbjörn Törnqvist, PhD, Tulane University
Arthur Trembanis, PhD, University of Delaware
J.P. Walsh, PhD, East Carolina University
R. Jude Wilber, PhD, Capella Consulting Group
Harry Dallon Weathers, PhD, University of New Orleans

The views expressed in this letter should not be interpreted to reflect the views or official endorsement of the institutions employing the signatories.