Testimony of Randy Lanctot, Executive Director of the Louisiana Wildlife Federation, concerning coastal erosion causes, effects and solutions and the Louisiana Coastal Area Study. Submitted to the Environment and Public Works Committee of the United States Senate at a field hearing held in New Orleans, Louisiana on August 26, 2005.

Mr. Chairman and Members of the Committee:

Thank you for your interest in the daunting problem of coastal land loss that confronts our state and nation, and for taking the time to learn more about ongoing and proposed efforts to halt that loss and restore some of it back to functioning, productive coastal barriers and wetlands. My name is Randy Lanctot. I have been privileged to serve as executive director of the Louisiana Wildlife Federation, the state's oldest and one of its largest organizations of sportsmen and citizen conservationists, for more than 25 years. During that time, a lot of progress has been made in understanding the causes of coastal land loss and implementing strategies to combat it. But mostly what we have learned is that we are losing ground despite effective efforts, and that more and larger efforts must be applied to reverse the loss.

If you have reviewed the Louisiana Coastal Area study (LCA), you know that much of the southern part of Louisiana was built by the deltas of the Mississippi River as it whipped back and forth over the continental shelf, and that land loss and land gain is normal for a delta system. But under natural conditions, loss is balanced by gain, and that loss and gain occurs slowly over hundreds and thousands of years – a time frame long enough to invite disregard for the future evolution and inevitable loss of delta lands. The immediate concern of the European explorers and immigrants to the region that is now South Louisiana was to keep floodwaters at bay, exploit the region's natural resources and establish commerce to support a growing society. That familiar paradigm is common to communities across America. But the Delta's remarkable abundance and dynamic and challenging geology sets Louisiana apart from them all. I might add that we are more than happy to be different because of our lively and creative cultures, our great musical heritage, our wonderful cuisine, and carefree life view – all nurtured

by our unique location on one of the world’s great deltas, but we are not so pleased to be different because we are the victims of losing our land to the sea.

Land loss on a deteriorating delta is a natural process caused by wind, wave, tide, compaction of organic soils, subsidence and geologic faults. That loss is dramatically accelerated by the “people effect” – dredging for access and navigation channels; removal of subsurface minerals; unenlightened engineering of bulkheads, channels and dredged spoil deposition; impoundments, leveeing that impairs natural, delta-sustaining hydrology and sediment delivery; sea level rise and vessel traffic – all of which are prominent contributors to coastal land loss. Many of these activities, of course, have kept us dry and generated products and wealth that have contributed to the local and national economies.

I mentioned a “deteriorating” delta. It is important to keep in mind that we have settled in a delta whose river by now would have shifted its channel to a new and shorter route to the Gulf were it not for levees and water control structures that, along with channel maintenance, have directed the sediments that built the delta into the deep waters off the continental shelf. Understanding that informs the thinking behind many of the projects and concepts in the LCA.

The impacts of coastal erosion are the loss of tens of thousands of acres of wetlands and headlands in a domino effect fashion; loss of real estate and its economic value; loss of wetland-based fish and wildlife habitat and its dependent wildlife and fisheries productivity, along with the related social and economic impacts of those losses (seafood, recreational hunting and fishing and other wildlife related recreation, tourism,) including employment opportunities; increased risk of flooding and associated costs of insurance and disaster relief; disruption and relocation of communities; outmigration of Louisiana citizens; increased costs to establish and maintain infrastructure, including infrastructure critical to energy production.

The toll is in dollars, of course, but it is much greater than that. The particular interest of the Louisiana Wildlife Federation in coastal land loss is the inevitable loss of the fish and wildlife as their habitats disappear. As an organization that represents folks who are out in the field using and enjoying the natural resources of the state, we have a big stake in halting land loss and restoring the productive ecosystem that has made Louisiana the “Sportsman’s Paradise.”

The LCA report presents a number of approaches to dealing with coastal land loss. One that has been rejected is ***GET OUT***. Another is: ***Do nothing and take your chances***. We concur with the LCA on that. But one consideration that deserves more emphasis is the need to rethink and reengage society’s relationship with the Mississippi River Coastal Delta ecosystem to incorporate a larger measure of flexibility and uncertainty with respect to habitation and economic activity. We must adopt an attitude that will allow us to reconcile our expectations with the necessary changes we will have to make, as individuals and as a society, to achieve a sustainable coastal ecosystem. To put it bluntly, we have to be willing and prepared to get out of the way of the projects that will be needed to accomplish that task. In particular, as coastal restoration efforts impact coastal lands and waters, hunters, fishers, and other affected interests like landowners, will be called upon to cooperate and accept fair consideration for any disproportionate losses that they will sustain and that are inevitable as the kind of aggressive coastal restoration efforts that are needed are applied. So far, that road has been a little rocky, but hopefully, the lessons learned from the past will smooth the way for the future.

“Attitude is everything,” as the saying goes, and assuming all attitudes are adjusted to be in sync with the coastal restoration program, the solutions proposed by the LCA and efforts to follow can be accomplished, especially if we follow the fundamental foundation of success: “First, do no harm.” Activities that contribute to coastal land loss can be limited and or re/designed and re/engineered to reduce impacts. This applies particularly to dredging/navigation and levee work and activities that reduce stabilizing vegetative structure. Requiring that local, state,

and federal activities/projects, including private activities that are regulated by federal/state government, are consistent with conserving and restoring the coast also falls under the “do no harm” category. The LCA report contains an impressive statement of objectives and principles in Section 3.2 that is consistent with that concept in most respects and we commend the Corps for making that commitment.

Other solutions are to remediate problems where feasible (backfilling/plugging canals, terracing and sediment accumulation [Christmas tree] projects to reduce erosion and rebuild shoreline and marshland); armor shorelines as a temporary fix to buy time to implement a systemic solution; armor channel banks and regulate vessel traffic to prevent bank erosion; apply all material dredged to establish or maintain navigation in a beneficial way to restore eroded vegetated wetlands; enhance stabilization of newly restored or created land with plantings of suitable native species of grasses and shrubs; strategically preserve/restore (assuming the availability of a safe and an economic source of sand) barrier islands that serve as the scaffolding for interior marsh restoration; within the water and sediment budget of the Mississippi River sufficient to support river-borne commerce, divert as much river water and sediment as possible to establish vegetated wetlands in shallow coastal lakes and bays and sustain or restore freshwater flows in the most efficient manner (such as pulsing) to maintain wetlands along the isohaline line.

With a little informed contemplation, stating the solutions to coastal erosion is easy. Getting the political and financial support to do the work is a little more challenging. So, in an effort to inform and educate the people from all around the United States about Louisiana and our coastal land loss challenge, Governor Blanco and the America’s WETLAND Campaign initiated a new outreach effort this week -- “Save America’s Wetland: Write Now” to encourage all of us to let our friends and colleagues throughout America know about what is at stake here and how we all are bonded to the outcome. So, here is our effort to engage the members of the committee and citizens throughout the country in the hope that you

will pitch in and lend a hand. Thank you for the opportunity to make this presentation.

“..... Close your eyes and imagine this beautiful, wonderful country of ours – ocean to ocean, border to border. Imagine you are a drop of rain or flake of snow gathering a little bit of prairie soil, of Rocky Mountain granite, of piney woods’ sand, or a tiny piece of golden leaf born deep in a hardwood cove at the foot of the Appalachians, caught in a torrent, rollercoastering down to the Ohio, the Tennessee, the Wisconsin, Illinois, Des Moines or Arkansas, the Missouri, the Red – on to the Big River as it bends and curls back on itself, down to the Gulf of Mexico.

*When you arrive on the Delta you join pieces and parts of the rest of America, nourishing a landscape that is more waterscape, thronging with birds and fish and wetlands as far as you can see. Someone says “Comment ca va, mon cher?” (“How are you, my friend?”), and you are home – home to the coastal delta of the Mississippi River, an ecosystem so immense it is difficult to know and comprehend by experience – so vast, productive, and unique in America that it only can be compared to itself.**

People have always come to the Delta to experience the bounty – the food, fun, revelry – to unwind. They know it by "Laissez les bon temps rouler", by the good times. It’s no accident, or merely a consequence of aggressive tourism promotion. It’s the cultural manifestation of the natural abundance served up by the River and the wetlands.

To experience this immense ecosystem, you have to get in a boat, maybe a pirogue, and get out in it; but it can be rough going. This is no "prairie pothole". It goes on for thousands of acres and scores of miles as far as you can see. The first thing you notice, after the aroma of flatsedge and marsh grass and mudflats and brine (depending on where in the complex you happen to be) is the life; the birds – rails, stilts, waterfowl, herons/egrets, seagulls, terns, pelicans and masses of other waders and shorebirds. There's gators aplenty in the fresh and intermediate wetlands, more than anywhere else in the world. And bugs, of course – the food chain has to have its underclass. And, in season, there's solitude, serenity, sunrise and sunset punctuated with the often silent trading of the delta's dependent creatures.

When its extent and biological productivity is considered, it is very apparent that this is an ecological engine of enormous proportions, a “bread and butter” ecosystem with no match in the “Lower 48” – and it’s fading away – inexorably, insidiously, sometimes radically when the gulf gets nasty.

- The continuing loss of MRCD wetlands presents a severe threat to the infrastructure necessary to develop and transport energy resources. Pipelines traversing the wetlands supply 30% of the Nation's refining capacity and serve as the onshore base that provides logistical support for 75% of the oil/gas prospects in the Gulf of Mexico.
Roads, domestic water supplies and communities that are home to 2 million people are threatened by the loss of MRCD wetlands.

- The navigation capacity of waterways currently carrying 16% of the Nation's waterborne commerce and the viability of 4 ports that, combined, handle more tonnage than any single port in the world is jeopardized by the loss of MRCD wetlands.

- There are over 500,000 acres of state and national wildlife refuges in Louisiana's coastal zone; 5 million migratory waterfowl winter in Louisiana – 50% of the waterfowl using the Mississippi Flyway and 20% of waterfowl using all flyways. (In past years, up to 84% of Mississippi Flyway migratory waterfowl have wintered in Louisiana.) The ongoing massive disintegration of MRCD wetlands threatens this world class habitat for migratory birds and the nursery for coastal and Gulf of Mexico fish that supports the entire Gulf region. Estimates of the value of the natural resources that will be lost over the next 50 years due to coastal wetland loss range up to 100 billion dollars.

The loss of Mississippi River coastal delta wetlands is due primarily to the alteration of the natural geology and hydrodynamics that created the ecosystem. Channels and levees for navigation and flood protection have disrupted the capability of the system to maintain itself. The River, which once overflowed its banks on a routine basis, now is confined to a channel all the way to the deep water at the edge of the continental shelf where its load is discharged and lost to the fathoms of the Gulf and therefore, the freshwater and sediment that built the MRCD wetlands are no longer available to sustain them, to offset their natural erosion and subsidence. These facts make coastal restoration using the River and its freshwater and sediment doable.

That's the plan. Will you help?

* The Mississippi River has created and supports more coastal wetlands than occur anywhere else in the contiguous 48 states. World rank of the Mississippi River/tributaries in volume of discharge - 6th, sediment discharge - 3rd, length - 2nd , aerial extent of drainage basin - 3rd (receiving surface water runoff from 31 states and 3 Canadian provinces or 41 % of contiguous US).