

Saving Louisiana's Delta

By Kathleen Babineaux Blanco
Governor, State of Louisiana

The Mississippi River basin, the largest in North America, empties into the ocean at the Gulf of Mexico after passing through a delta wetland that is also among the largest in the world. Complex interrelated factors of land and water use have created serious ecological problems in the delta that state officials work to correct.

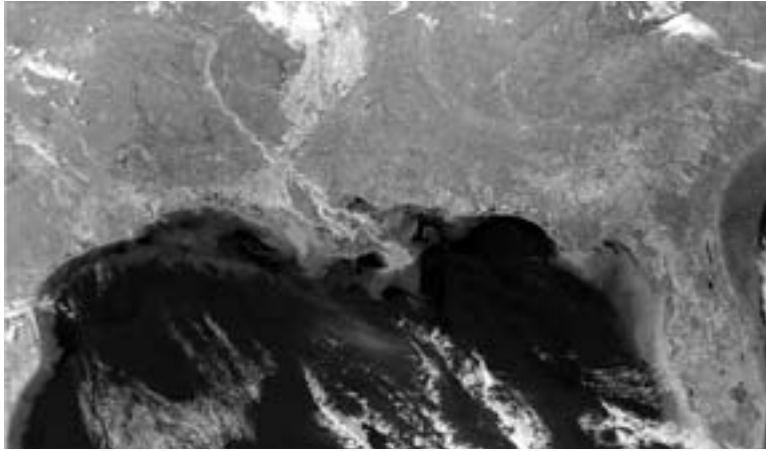
When I became governor of Louisiana in January, our state faced many challenges, among them the need to maintain momentum and sustain ongoing initiatives critical to our people. A good example is our continuing efforts to combat the state's coastal land loss of 62 square kilometers a year, through natural and man-made causes—a loss that has local, national, and global impacts.

Our coastal restoration program is at a critical juncture. State and federal officials are grappling with how to fund a complex restoration effort that will ultimately cost billions of dollars and with how to craft a short-term plan that will begin to implement a long-term effort. I'll share some initiatives with you that are proving successful, but first I'd like to put in context the urgent challenges we face.

Ecological and Economic Impacts for the Nation and the World

The vital wetlands along Louisiana's coast are truly "America's Wetland," one of the largest and most productive expanses of coastal wetlands in North America. This vast landscape represents more than 90 percent of all coastal saltwater marsh loss in the continental United States. During the past 50 years, we have lost more than 5,000 square kilometers of land. In the next 50 years we will lose almost 2,500 more square kilometers if nothing is done.

Louisiana's wetland, the seventh-largest delta on Earth, is of global ecological significance. This intricate ecosystem has enormous environmental consequences for wildlife habitat and marine life. It is also a working wetland, hosting production and distribution of 80 percent of America's offshore oil and gas supply. Almost 30 percent of all oil and gas consumed in the United States comes across



The Mississippi River watershed runs straight through Louisiana, center, and into the Gulf of Mexico. Florida is at right; Texas is at left. (NASA/Goddard Space Flight Center)

Louisiana's shore by tanker, barge, or pipeline and it is from this area that distribution of energy for the entire eastern United States begins.

As the protective wetlands and barrier islands disappear, oil and gas infrastructure along the coast becomes exposed to open conditions in the Gulf of Mexico. Wells, pipelines, ports, roads, and levees become more vulnerable, and the potential for damaging oil spills increases. As these conditions worsen, the environmental damage in the event of a hurricane or storm may be catastrophic, and the nation's economic and energy security is put at risk as the probability increases for interruption of oil and gas production and distribution.

Protection for the Nation's Ports, Cities, and Inland Waterways

The Louisiana wetlands serve as protection from hurricanes and storm surges for more than 2 million people living in the coastal zone, including the city of New Orleans, and they act as a buffer for the number-one port system in the United States, responsible for moving the nation's goods to world markets. The navigation corridors and port facilities for commerce and national defense are valued at more than \$15 billion annually.

Dead Zone, Nursery Ground, and Wildlife Habitat

Louisiana's wetland accepts the drainage of two-thirds of the United States through the Mississippi

River, along with high concentrations of nitrogen from agricultural runoff. This abundance of nitrogen supports excessive algal growth, which depletes oxygen in the water to the point where other life forms cannot survive. It's a condition called hypoxia and creates what the scientists are calling a "dead zone." These lifeless stretches of water are showing up in oceans all over the world, but the one in the gulf, offshore from my state, now measures more than 18,000 square kilometers.

More than 30 percent of the nation's fisheries catch in the continental United States comes from offshore

Louisiana. Our delta is the natural nursery ground for much of the country's seafood, with 95 percent of all marine life in the Gulf of Mexico spending part of its life cycle in these coastal wetlands.

These wetlands also are located on the migratory flight paths of millions of waterfowl and songbirds that find winter habitat on the Mississippi and Central flyways. As the wetlands disappear, habitat is lost, threatening national refuges and putting numerous threatened and endangered species at risk.

Causes of Loss

A combination of both man-made and natural causes is contributing to the loss of coastal land. In many ways, Louisiana's wetland suffered the unintended consequences of federal policies made without awareness of long-range environmental impact. The following factors have come into play:

- In the 1940s, the federal government built levees along the Mississippi River to provide flood protection for cities and ports and to channel the river for navigation and transportation. The river's fresh water was cut off from the wetlands. As a result, the nutrients and sediments that had replenished and rebuilt the wetlands since their formation now pours out into the Gulf of Mexico and off the continental shelf.
- This is an organic coast made of vegetative matter that easily erodes, leaving nothing but

open water. Various forms of marine life begin their life cycles in this vegetative matter, so this loss of coast is also a loss of habitat. Natural subsidence of the coast has been occurring since the beginning of this delta's formation millennia ago. Before the levees were put in place, the river was able to replenish and rebuild to counteract these natural losses.

- When offshore oil and gas exploration and development began in earnest in 1947 with the first offshore, out-of-sight-of-land well drilled near Morgan City, Louisiana, the first pipeline canal was dug through Louisiana's coastal wetlands. Since that time, canals that carry more than 38,000 kilometers of pipeline come across Louisiana's shore, anchored on its barrier islands, then on to distribution points to supply a fuel-hungry nation with its energy. These pipeline canals, along with navigation canals, exacerbate the wetland loss. North-south canals allow salt water and stronger tides into fresh marshes. East-west canals and levees hold excess water on the marshes and swamps.

- Hurricanes and storm surges do untold damage to the wetlands. As these events occur, the protective ability of the wetlands continues to diminish.

Pay Now or Pay Later

The Louisiana delta is a prolific area that is of vital importance to the nation and the world, yet few people are aware of the benefits of the ecosystem or of what is at stake if we continue to lose ground. If nothing is done, the economic and ecological consequences will have repercussions for generations to come. To rehabilitate the ecosystem and sustain its assets will cost billions of dollars and will require continuing support from federal and state governments. The cost of not acting with deliberate speed has been estimated at more than \$100 billion in infrastructure alone.

Solving the Problem

Louisiana and its federal partners developed a plan for restoring coastal Louisiana through the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) in 1990. The state and five federal

agencies led by the U.S. Army Corps of Engineers, together with scientists, local governments, environmentalists, landowners, industry representatives, recreational and commercial fishermen, and concerned citizens, reached unprecedented consensus on a blueprint for coastal restoration known as Coast 2050.

The main strategies of Coast 2050 are watershed management, such as river diversions and improved drainage, and watershed structural repair, such as restoration of barrier islands. It exceeds in scale, complexity, and geographic extent the effort currently underway to restore the Everglades in the state of Florida.

Although CWPPRA has been providing about \$40 million a year for coastal restoration efforts, the complexity of the problem will require larger projects than current funds allow. The restoration of America's Wetland is predicted to become the largest engineering project ever attempted in the world.

The Call to Congress

CARA

In the recent past, members of Louisiana's congressional delegation have advocated legislation—the Conservation and Reinvestment Act (CARA)—to reinvest revenues earned from the depletion of nonrenewable assets (oil and gas reserves on the outer continental shelf) in conservation of renewable resources, including the restoration of coastal wetlands. This type of legislation is particularly important to Louisiana since the great majority of the nation's offshore oil and gas revenues come from offshore Louisiana, and since the wetlands that protect that distribution and production is being lost at such a dramatic rate. This legislation is still pending before the Congress.

Energy Legislation

Energy legislation also currently pending in Congress would provide funding to states with oil and gas production off their coasts to secure critical energy infrastructure facilities from human or natural threats, to support public service or transportation activities needed to maintain the

safety and operation of energy infrastructure facilities on the outer continental shelf, and to restore coastal wetlands, which provide protection from open gulf conditions. However, direct spending provisions, which would have provided a steady stream of funding to states to sustain restoration efforts, were recently stripped from the bill. Louisiana is urging Congress to reinstate those provisions.

Water Resources Development Act (WRDA)

Congress is presently considering a 2004 WRDA bill that would include ecosystem restoration in Louisiana. In partnership with the Army Corps of Engineers, my administration is crafting a provision that would authorize the first phase of a longer term plan, which would establish an ongoing science and technology program to support restoration efforts, construct near-term projects, and continue studies on longer term, more complex strategies.

Sustaining the Effort and Momentum

Several mechanisms have been put in place to ensure continuity in Louisiana's coastal restoration program: public-private and state-federal partnerships, a coastal commission that advises the governor, a state and national public awareness initiative to spread the word about Louisiana's land loss and its consequences, and a nonpartisan approach to solutions.

- As mentioned earlier, the state-federal partnerships forged by CWPPRA over the past 13 years have proven powerful in forging relationships with agencies and programs, relationships that are critical to our ability to sustain coastal restoration efforts.
- The Governor's Advisory Commission on Coastal Restoration and Conservation includes 31 members who represent different coastal stakeholder groups, including industry, national and local environmental groups, local and state

governments, landowners, fisheries interests, ports, agriculture, business, science and technology interests, higher education, and others. Commission members serve staggered terms, thus spanning different political administrations. They work together through controversial issues to forge compromises. The commission meets monthly and is briefed on every aspect of state-federal efforts, and it will play an important role in helping the state legislature and our citizens understand the need to pay our fair share of the cost of this vital restoration effort.

- It was recognized several years ago that most Americans were not aware of the land loss occurring on Louisiana's coast, nor of the vast benefits the nation and world derive from these working wetlands. After seven months conducting research and focus groups, the state launched America's Wetland: Campaign to Save Coastal Louisiana, a national and statewide public awareness effort that is focusing on the global ecological significance of this area and the impact it has on the nation's economic and energy security.

Louisiana will continue its fight to save this valuable landscape for future generations and welcomes you to join our efforts. I urge you to visit the campaign Website, www.americaswetland.com. It is a wealth of information, with links to government Websites that detail restoration efforts and partnerships. If you would like more information or have questions, please call the Louisiana Office of Coastal Activities at 225-342-3968.

Kathleen Babineaux Blanco, the first female governor of the state of Louisiana, began serving a four-year term in January. She has been serving in public office for 20 years.

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