

Protecting Louisiana

An
Environmental
Briefing Book



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II. Restoring Louisiana's Coast

Restoring Louisiana's coast has been studied for years, and we have a good idea of what to do. Now comes the tough part—making it happen. The state's Master Plan for a Sustainable Coast offers a first look at how Louisiana will proceed. Recommendations offered in the Multiple Lines of Defense Strategy offer valuable perspectives as well. Balancing the many needs in play is a job for everyone who cares about our state's future.

II. Restoring Louisiana's Coast

a. Multiple Lines of Defense: A Strategy for Saving Louisiana

John Lopez
Lake Pontchartrain Basin Foundation

Issue:

South Louisiana appears to have entered a period when the combination of two powerful forces is working against its survival:

- 1 coastal land loss; and
- 2 more frequent intense hurricanes.

A multiple lines of defense strategy will help Louisiana meet these challenges and build a secure long-term future.

Opportunities:

The Multiple Lines of Defense Strategy proposed by Lopez (2006) proposes two key elements:

- 1 use natural and manmade features to directly impede storm surge or reduce storm damage (Lines of Defense);
- 2 establish and sustain a variety of wetland habitat types.

The Multiple Lines of Defense Strategy is not a new restoration technique; rather, it is a planning methodology for coordinating and prioritizing conventional restoration methods and projects for coastal habitats and flood protection.

The Lake Pontchartrain Basin Foundation and the Coalition to restore Coastal Louisiana have released a report (available at www.MLODS.org) that shows how the Multiple Lines of Defense Strategy can be used to sustain coastal Louisiana.

Background:

The “lines of defense” include the Gulf of Mexico shelf, the barrier islands, bays, the sounds, marsh land bridges, natural ridges, manmade ridges, floodgates, flood levees, pump stations, home and building elevations, and the evacuation routes. Identification of these lines of defense on a map allows hydrologists, levee district managers, emergency personnel, and others to share a common landscape template. This, in turn, allows all parties to evaluate, abate, and monitor flood risk or other storm impacts using the same standard.

The concept of multiple lines of defense has been adopted by the State of Louisiana in its development of the “Louisiana’s Comprehensive Master Plan for a Sustainable Coast.” In addition, the multiple lines of defense strategy has also been adopted by the United States Army Corps of Engineers (USACE) in its ongoing development of the Louisiana Coastal Protection and Restoration Plan (LACPR).

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b. Protecting Wetlands as Carbon Reservoirs

Casey DeMoss Roberts
Gulf Restoration Network

Issue:

In a time of rising carbon emissions and land loss for Louisiana, it is imperative that we protect carbon reservoirs by protecting our coastal wetland resources. It is inconsistent policy for Louisiana to ask Congress for billions in coastal restoration dollars when 99% of all applications are approved to develop, and thereby destroy, coastal wetlands in Louisiana.

Opportunities:

Technically, coastal wetlands are protected by the joint permitting procedures of the Army Corps of Engineers (the Corps), the Louisiana Department of Natural Resources, and the Louisiana Department of Environmental Quality. Unfortunately, our vital wetlands are not being adequately protected by this system. Of the large number of Section 404 permits requested, the Corps denies less than 1%.

It would take an act of Congress to change the Corps's permitting laws, but Louisiana could achieve this goal quickly if the state Legislature issued a moratorium on coastal zone permitting. A moratorium on coastal wetland destruction will help protect Louisiana lives, jobs, and property by maintaining our surge protection, hurricane buffer zones, and fisheries habitats for the long term.

Background:

Wetlands assimilate carbon dioxide into biomass where it builds up over time and is stored in trees, grasses, peats, soils, and sediments. Extensive coal deposits around the world, which were originally formed by wetlands hundreds of millions of years ago, show how well wetlands function as long-term carbon storage areas. Our wetlands may become large carbon emitters if they are drained or destroyed.

The Energy Independence and Security Act of 2007 will expand and improve the Department of Energy's existing carbon capture and sequestration research program and will require a national assessment of capacity to sequester carbon in geologic and biological ecosystems. In the 2007 Farm Bill, there are incentives for protecting the function of forests, including carbon sequestration and water purification services. By protecting and restoring our wetlands, Louisiana stands to greatly benefit from these pieces of legislation.



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c. Global Warming Makes Coastal Restoration Imperative

Louisiana Environmental Action Network

Issue:

Healthy coastal wetlands are one of Louisiana's best hedges against the devastating effects of global warming.

Opportunities:

Louisiana will feel the effects of global warming before any other state in the nation. According to this scenario, rising sea levels and increasingly destructive storms will flood low-lying coastal parishes, ending life as we know it in south Louisiana. However, Louisiana legislators can change the forecast for people and wildlife in Louisiana by tackling global warming as a top priority and by advocating large scale restoration efforts that build coastal land quickly. In addition, because global warming will be a significant driver of coastal change, its effects must be factored into all restoration plans.

Background:

Global warming could have dire consequences for our state. But healthy coastal marsh and forests slow down and absorb storm surges, which in turn protects communities and levees. Because much of south Louisiana is part of a deltaic system, it can, under the right conditions, build new wetlands and actually increase coastal elevations overtime. In fact, scientists predict that Louisiana's wetlands could keep up with rising sea levels caused by global warming if a robust restoration program were implemented soon. Such a program would restore the Mississippi and Atchafalaya Rivers' natural processes of sediment and freshwater deposition wherever feasible. Lawmakers should make sure that the state's restoration plan is explicitly designed and managed to do so.



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d. Creating Safe Communities and A Sustainable Coast

Coalition to Restore Coastal Louisiana

Issue:

Ensuring the safety of our coastal communities and creating a sustainable coastal Louisiana must be the ultimate goal of our protection and restoration efforts.

Opportunities:

The legislature will shape the success of our coastal restoration efforts. The state's Master Plan is a first step, but the legislature must encourage legal and regulatory authorities to make state-wide development, permitting, zoning, and building codes part of a systematic approach to coastal sustainability. The legislature should also work with local authorities to ensure that land use policies are consistent with protection and restoration objectives. The state's financial commitment to protection and restoration efforts is paramount to achieving a sustainable Louisiana coast.

Background:

The Coalition to Restore Coastal Louisiana defines sustainability as a state of the wetlands, waters, and barrier shorelines of coastal Louisiana that achieves and maintains a dynamic and productive synergy of ecologic, economic, and social capacities. These capacities must be resilient, adaptive, and transformable enough to meet the needs of future generations with minimal reliance on human intervention.

Property rights issues have often been framed as conflicting with restoration and protection objectives. We recognize that the state must pursue liability protections that balance the rights of all parties, but the state must also allow restoration and protection projects to go forward without fear of frivolous lawsuits. To that end, it is imperative that the legislature work to prevent speculative leasing as well as address key issues surrounding quick-take authority.

Reliable long-term funding for coastal restoration has been out of reach in the past. We applaud the considerable proposed allocation of state surplus funds to coastal protection and restoration efforts. However, given the magnitude of funding required to address protection and restoration needs over an extended period of time, we cannot rely on fluctuations in the state budget to supplement the sizeable investment necessary to protect and restore a sustainable coastal Louisiana. Bonding future dollars to begin urgent protection and restoration initiatives may address short-term needs, but we must work toward a significant and sustainable source of funding for coastal protection and restoration efforts.