

# 07

Saving America's Wetland:  
Report on Progress Made and Future Challenges

**THE LOUISIANA GOVERNOR'S ADVISORY COMMISSION ON  
COASTAL PROTECTION, RESTORATION AND CONSERVATION**



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*Governor's Advisory Commission on  
Coastal Protection, Restoration,  
and Conservation*

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# Executive Summary

The fifth report of the Governor's Advisory Commission on Coastal Protection, Restoration, and Conservation was written just after the state had adopted the Master Plan for a Sustainable Coast in 2007. The Master Plan presents a detailed vision of how a restored and protected coast could be achieved. While several of its provisions are still subject to debate and have yet to be finalized, the plan does articulate the state's view of the challenge ahead.

The Governor's Advisory Commission on Coastal Protection, Restoration, and Conservation (the commission) is responsible for helping the state and its partners shape a future for the coast. With regard to the Master Plan, the commission's job is to provide advice as to how this new tool can best be used. Along those lines, the commission strongly encourages the U.S. Army Corps of Engineers (Corps) and other federal partners to adopt the overall rationale of the Master Plan. We also encourage the state to immediately begin the adaptive management process, particularly as concerns high profile projects such as the Morganza to the Gulf levee.

In addition to the Master Plan, Louisiana and its partners achieved several other important goals in 2006 and early 2007:

- Began discussions among the Executive Assistant for Coastal Activities and the secretaries of the Departments of Natural Resources and Transportation and Development. This group is developing a new management structure that will guide their agencies' interactions as the program ramps up in the coming years.
- Began bringing a greater degree of consistency to the state's management of the coast. This includes using the Master Plan as the standard by which to assess the viability of future projects. The Coalition to Restore Coastal Louisiana and the Louisiana Sea Grant Program are also reviewing potential tools for encouraging more prudent development along the coast.

- Gained congressional approval of an offshore revenue agreement that will accord Louisiana approximately \$20 million per year until 2016. After that date, Louisiana will receive between \$300 and \$500 million or more per year.

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**The commission strongly encourages the U.S. Army Corps of Engineers and other federal partners to adopt the overall rationale of the Master Plan.**

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Several challenges must be addressed as Louisiana implements its coastal protection and restoration program:

- Improve coordination with federal agencies and pursue a more robust partnership with the Corps.
- Work with other states to change the way the federal government allocates resources for major ecosystem initiatives.
- Increase scientific and managerial capacity.
- Continue to provide an expanded role for citizen and stakeholder input—at every level of decision making.
- Protect the public trust by focusing on the needs of the entire ecosystem, while mitigating, to the greatest extent possible, impacts on affected citizens.

The fifth report of the Governor's Advisory Commission on Coastal Protection, Restoration, and Conservation was prepared in an atmosphere of promise and immense challenge. The state completed the Master Plan for a Sustainable Coast in the spring of 2007. This document presents a detailed vision for how a restored and protected coast could be achieved. Equally important, the plan identifies questions about how to implement this vision—questions that must be resolved if the state's efforts are to succeed.

Hurricanes Katrina and Rita intensified the need for action. Louisiana's land loss emergency had already reached crisis levels before the storms, but after the hurricanes, the prognosis for particularly vulnerable areas worsened considerably. In the Barataria-Terrebonne Estuary, for example, scientists now believe that unless major land building initiatives are expedited, the wetlands in this area will not recover.

Much will be lost if the threat to Louisiana's coast goes unanswered. This ecosystem includes some of the most unique landscapes in the world and provides habitat for 17 different endangered and threatened species. In addition, many of the towns and settlements in the region are centuries old and renowned the world over. All of these priceless assets will be lost unless we find ways to rebuild and protect south Louisiana's wetlands.

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***Louisiana is home to nationally significant infrastructure worth hundreds of billions of dollars.***

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In addition to its ecological and cultural heritage, south Louisiana is home to two million residents as well as nationally significant infrastructure worth hundreds of billions of dollars. The marshes, swamps, ridges, and barrier islands that make up Louisiana's coast shield these communities and infrastructure by slowing down and reducing incoming surges of storm water from the Gulf of Mexico. As long as the wetlands provide this buffering function, towns, cities, fisheries, oil and gas support

facilities, pipelines, navigation channels, and ports can function in an environment where high tides and tropical storms regularly occur.

Without the wetlands, all of this infrastructure, including billions of dollars in corporate resources, would lose a major source of protection from the open water of the Gulf. Should this scenario come to pass, a direct hit from a major hurricane would send the U.S. economy into a tailspin. Navigation and commerce would be disrupted, and Louisiana's capacity to deliver oil and gas for the benefit of the country would be severely reduced, causing energy prices to soar just as they did after Hurricanes Katrina and Rita.

Hurricanes are not the only threat. The incremental effects of ongoing land loss also take a daily toll. One need only consider the 9,300 miles of pipelines in and around Louisiana's coast, which help deliver one-third of the nation's oil and gas supply. The pipelines were built for inland conditions, but they are being gradually being exposed to ocean waves as the wetlands around them decompose and sink. More waves mean more damage to the pipelines, and this in turn increases the likelihood of major oil spills and supply disruptions. These steadily increasing threats in south Louisiana are no less emergencies for being those that unfold in relatively slow motion.

The enormous scale of Louisiana's land loss problem demands a solution of equal magnitude. In the Deltaic Plain, land building is the priority. Diversions of the Mississippi and Atchafalaya Rivers must be designed and engineered to spread water, sediment, and nutrients into targeted areas, providing marshes with the raw materials they need to regenerate. In areas that cannot be reached by such direct diversions, spreading sediment via pipeline may be a viable option. However, this method is costly, and it is still not clear how pipeline-created marsh will function as part of the larger ecosystem. In the Chenier Plain, fresh water supplies are the major concern. Improved water management options must increase the amount of fresh water available, and measures must be taken to stop the continued encroachment of salt water into aquifers, lakes, and other drinking water and irrigation sources. Throughout

south Louisiana, the coast's perimeter must be shored up through barrier shoreline and other restoration projects that keep the skeleton of the ecosystem functioning. Taken together, these measures would change the flow of water and sediment over a huge area—an endeavor that would rank as one of the largest civil works programs in our nation's history. Anything less will doom the region and inflict serious damage on our national economy.

Wetland restoration projects alone, however, cannot create a sustainable coast. The tragic consequences of Hurricanes Katrina and Rita made an overhaul of south Louisiana's hurricane protection system imperative. This overhaul must work in conjunction with restoration measures to provide Louisiana residents and businesses with a reliable baseline of safety from storm surge. The exact levels of protection that may feasibly be achieved and the measures for doing so are still being studied and debated. But there is widespread agreement that hurricane protection and coastal restoration objectives are of commensurate importance and must be pursued in tandem.



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Louisiana refocused its method of handling these matters when the state legislature passed Act 8 in November 2005. Signed into law by Governor Blanco in November 2005, the act created the Coastal Protection and Restoration Authority (CPR Authority) and charged it with integrating coastal protection and restoration in order to create a comprehensive solution to the challenges facing south Louisiana. To support this mission, Act 8 gave the CPR

Authority oversight of state entities such as levee districts, as well as other tools for coordinating the work of multiple agencies. The state's Master Plan for a Sustainable Coast was also created in response to the mandates of Act 8. The act stipulated that the Master Plan integrate both hurricane protection and coastal restoration measures in order to ensure the long-term health of the entire region.

Integrating hurricane protection and coastal restoration in this way marks a significant departure from past practice and will require rethinking the ways we live in and use the coast. Such innovative thinking has long been called for. Many groups, including the commission, have noted that we must move beyond business as usual if we are to create a sustainable future for south Louisiana. The breadth of the task before us precludes the use of standard procedures and timeframes, not just at the state level, but also among federal agencies and within coastal communities themselves. Fortunately, there is increasing evidence that the state and its partners are willing to change outmoded courses of action that do not serve this larger purpose. The commission's assessment of these efforts, and our articulation of the challenges ahead offer further ideas for building upon this momentum for constructive change.



# Status of Louisiana's Coastal Protection and Restoration Efforts

## *LOUISIANA'S COMPREHENSIVE MASTER PLAN FOR A SUSTAINABLE COAST*

The Master Plan is a first for Louisiana's coast: it integrates both coastal restoration and hurricane protection measures, it establishes a yearly mechanism for designating projects to be undertaken, and it offers guidelines for implementing the program in the coming decades. The Master Plan was developed with the input of citizens, scientists, local government officials, and many others. In addition, the planning team considered comments received on drafts of the plan, including those received from two scientific review boards. The planning team collected over 2,000 pages of comments on the plan's content, a testament to the level of interest that this effort engendered in constituencies throughout Louisiana and the nation.

The Master Plan built on previous efforts, such as the Coast 2050 Plan, which outlined an broad vision for restoring the coast, and the Louisiana Coastal Area reports developed between 2002 and 2003, which extended the analyses used to create the Coast 2050 Plan and presented several restoration options for Congress to consider. However, the Master Plan takes these documents to a new level, one that reflects Act 8's mandate to set a new course for the state's future.

Not only do the Master Plan's recommendations encompass both flood protection and coastal restoration measures, but the plan weaves both of these activities together. The plan envisions flood protection measures designed to support healthy ecosystems and wetlands rebuilt so they might provide an additional line of defense for flood protection structures. The Master Plan presents a detailed look at possible options, including maps and diagrams showing where flood protection structures and river diversions might be positioned. At the same time, the Master Plan acknowledges the complexity of the task and the need for continued analysis of targeted options.

The CPR Authority's team was only given one year in which to finish the Master Plan. This schedule reflected the urgent need to frame a new vision for the coast in the wake of

Hurricanes Katrina and Rita. However, several constraints limited what the plan could present. Chief among these constraints were the technical issues that scientists and engineers need to further investigate. For example, questions remain about how the effects of climate change will manifest in south Louisiana and how these effects will impact restoration and protection work. In addition, river diversions of both the Mississippi and Atchafalaya Rivers are the primary options for restoring sustainability to the Deltaic Plain, and advanced modeling must be performed before we can predict how these diversions will work in practice, particularly when multiple diversions are operating in the same estuarine basin. Additional questions concern hurricane protection structures. We need to better understand how and where levees and other protection structures should be constructed in order to protect both human communities and the natural ecosystem upon which these communities depend. These and other questions, including a better understanding of how water moves through the Chenier Plain, can only be answered by further research.

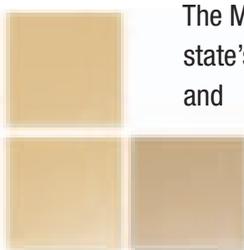
At the same time, the plan rightly acknowledges that the state cannot wait until all of these questions are answered before it begins building projects. The plan thus had to strike a balance between pinpointing areas of uncertainty and paving the way for decisive action. Such careful weighing of alternatives is intrinsic to a task that is, for all intents and purposes, setting out to rewrite the science and engineering textbooks as they pertain to wetland restoration and flood control. Indeed, the Master Plan is predicated on the assumption that continued advancements in science and engineering will be integrated into the state's activities over the coming years. Far from setting up a conflict between the need for research and the need for bold action, the plan affirms that both are imperative if Louisiana is to create a sustainable coast.



# Status of Louisiana's Coastal Protection and Restoration Efforts

In keeping with these dual imperatives, two themes dominate the plan's discussions of options. The first stresses the need to continually update the state's vision as new knowledge is gained. Some projects in the plan, such as rebuilding the Caminada Headland and Shell Island, are well defined. But many projects, such as a major river diversion in Plaquemines Parish, will require further study before they can be designed. Still other projects, such as the Lake Pontchartrain Barrier alignments, are so conceptual that the plan does not issue a definitive recommendation as to where the project should be located and instead offers a menu of alternatives, with the pros and cons of each briefly explained. Recognizing that the protection and restoration program must be implemented in phases as our knowledge and funding levels increase, the plan stresses the need to learn as we go, applying experience gained in earlier projects to subsequent initiatives. Called "adaptive management," this approach can uphold the program's basic objectives over the coming years while also responding to lessons learned and changing conditions. The Morganza to the Gulf levee project will be the one of the first tests of this adaptive management approach, as the levee's siting and design may need to be updated to reflect changing conditions on the ground as well as improved techniques that become available (see below).

The Master Plan's second theme concerns the hard choices that must be made given the scarcity of time and resources that are available to complete this massive undertaking. The plan states that we cannot save every coastal feature, nor can we extend the same level of hurricane protection to every south Louisiana community. In addition, areas with fewer assets and lower populations will have to live with more flood risk than will major cities. While not pleasing to everyone, the tradeoffs presented in the plan reflect the real world conditions under which the restoration and protection program must move forward.



The Master Plan has been adopted as the state's official policy on coastal protection and restoration, and the commission supports the plan's pragmatic approach—one that identifies unknowns as well as difficult

tradeoffs while still providing the means for making progress based on what we know today. Now that this document has been adopted, the commission's role is to help build upon the plan's strengths and encourage federal planning efforts to be consistent with the document's goals and objectives. Thus, while project details will no doubt change in the coming years, the commission strongly encourages the U.S. Army Corps of Engineers (Corps) and other federal partners to adopt the overall rationale of the Master Plan.

In addition, the commission must also help the state identify and meet the challenges of implementing the projects discussed in the Master Plan. The examples below show the kinds of project specific challenges that will arise as the state tackles the next phase of its coastal program.

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## 1. *The Mississippi River Gulf Outlet (MRGO)*

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While the closure of the MRGO has been discussed for years, the issue reached center stage after the storms of 2005. In 2006, the commission issued recommendations for closing the channel to deep draft navigation. The commission's recommendations affirmed similar calls to action made by many other state, local, and non-profit entities. The Corps echoed this approach in a July 2007 report, which recommended the immediate and total closure of the channel. At the same time, any effects that closing the MRGO may have on shipping in the New Orleans region will have to be mitigated. The fate of the Inner Harbor Navigation Canal lock remains a source of debate along these lines, with some, including the writers of the Master Plan, calling upgrades to the lock essential, and others calling such upgrades needless and intrusive. This issue will continue to be discussed, particularly when the Corps issues their environmental impact assessment on the lock project. But as the Master Plan states, discussions about the fate of the lock should not retard progress on the larger issue, which is the need to immediately close the MRGO and make sure that all remediation efforts reduce storm risk and enhance the health of the coast.

# Status of Louisiana's Coastal Protection and Restoration Efforts

In this regard, the commission supports the Master Plan's proposal to combine closing the channel with other wetland restoration initiatives. These include rebuilding marsh and swamp in the Central Wetlands and Golden Triangle areas, as well as using the MRGO to channel fresh water from the Mississippi River to the Biloxi Marshes and other areas of St. Bernard Parish. This holistic approach seeks to use a linchpin area to gain multiple benefits for hard hit wetlands. As the commission stated in its 2006 report to the CPR Authority, we believe that wetland rehabilitation must be a feature of any closure plan for the MRGO, and we encourage the state to continue taking a leadership role on this issue.

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## *2. Morganza to the Gulf Levee*

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The Master Plan recommends that the current alignment for this levee be constructed, although it leaves open the question as to whether additional alignments may be necessary. As the plan states, the project has been scrutinized by citizens, scientists, and policy makers for 15 years, and it has been reviewed through the National Environmental Policy Act process, which assesses the environmental impact of major federal projects. The Morganza to the Gulf levee is awaiting authorization as part of the next federal Water Resources Development Act. The commission believes that this authorization is vital for protecting a rapidly degrading ecosystem, as well as nationally important infrastructure and the 200,000 citizens of the Houma-Thibodaux area, some of whom today experience flooding simply from high tides and small storms.

The Master Plan's recognition of the need to offer flood protection to this populous area as well as the plan's insistence that Morganza to the Gulf be built in ways that enhance the overall functioning of the ecosystem seem to fairly balance the many issues in play. However, the question remains: how can the project, now primarily in the design stage, best meet these two goals?

To take advantage of lessons learned, particularly those illustrated by the New Orleans levee failures, the commission recommends that the state begin the adaptive

management process immediately with respect to Morganza to the Gulf. Scientists and engineers should guide modifications to the current alignment to make sure that the final siting and design of the Morganza levee are optimal. Such modifications could lower the project's long-term costs while increasing Morganza's effectiveness.

As with any adaptive management system, the state and Corps must incorporate groundbreaking technical information when it becomes available, changing aspects of the project when necessary to reflect knowledge gained. Such flexibility will not be easy to maintain. To encourage a high level of responsiveness to innovation over the long-term, the organized participation of policy experts and scientists (see page 11) will also be necessary, as will the continued oversight of concerned citizens and entities like the commission. It is critical that effective and integrated hurricane protection be implemented in the Houma-Thibodaux area as quickly as possible. This goal can only be met if we make sure that Morganza's design reflects the best possible science and engineering, not just at the outset, but through the many years that the project is constructed.

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## *3. Non-structural solutions to storm surge risk*

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Levees are not the answer for every south Louisiana community. Since there are not enough federal dollars or available land to build levees everywhere flooding occurs, the Master Plan highlights ways in which citizens themselves can reduce their risks. The plan recommends that citizens take advantage of the Community Rating System, which can help homeowners reduce their insurance premiums if they raise or retrofit their homes. Making sure their communities curtail development in wetlands and flood prone regions is another measure that can lower flood risks as well as premiums. The plan's emphasis on non-structural solutions highlights the role citizens of the coast can play in making south Louisiana a safe place to live and work. The commission endorses this view and would encourage citizens not just to consider these and similar measures, but to become active participants in the creation of future iterations of the Master Plan (see page 11).

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## *MANAGING THE PROGRAM: NEW QUESTIONS, NEW ANSWERS*

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The Master Plan provided many specifics about project options, but it provided few details about how the restoration and protection program could be effectively managed in the future. Many questions have arisen, such as: how can the many state agencies involved work together to effectively run this massive program? How will the Master Plan be updated? What safeguards will be implemented to ensure that the best science and engineering, and not short-term political considerations, are the driving forces behind changes to the plan?

These questions need to be answered, but doing so was beyond the purview of the team that developed the Master Plan. Instead, this line of inquiry is being explored in ongoing discussions among the Executive Assistant for Coastal Activities and the secretaries of the Departments of Natural Resources and Transportation and Development. This group is investigating the best ways for their agencies to interact as the program ramps up in the coming years. The group has looked at other models, from the Florida Everglades Program, to the CALFED Bay-Delta Program in California, to the Big Dig in Boston. Based on the results of the group's research and conclusions, a memorandum of understanding among the three agencies will likely be introduced in 2007. This memorandum will present a framework for enabling the agencies to work together while also incorporating the best possible technical expertise in all aspects of the program's activities. As a complement to these discussions, a national search is underway for a director of implementation for the coastal protection and restoration program.

Time is of the essence. The state must capitalize on the momentum created by the release of the Master Plan, and it must begin implementing those features of the plan that are ready for construction. This cannot be achieved without an enhanced management structure. Such a structure will also provide important support to the state's science and engineering program. In addition, having a credible management structure for the restoration and protection effort will increase the confidence of citizens here in

Louisiana and among members of Congress that the state is changing the status quo in order to deliver results.

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**The idea of professionalism transcending politics is particularly important as Louisiana moves into an election year.**



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The idea of professionalism transcending politics is particularly important as Louisiana moves into an election year. We cannot wait until a new administration is ensconced in 2008 before confronting these issues, nor should the optimal structure for managing the Louisiana's coastal protection and restoration program be subject to political gamesmanship. For these reasons, the commission fully supports the discussions now underway to improve the state's managerial capacity.

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## *NEW OPTIONS FOR COORDINATION*

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Many programs, both state and federal, include as part of their mission the mandate to sustain, protect, or restore Louisiana's coast. Making sure that these agencies and programs support each other's work has been an ongoing challenge. The state's newly created Master Plan should ease this difficulty, given that it clearly establishes objectives, assumptions, and projects to be undertaken.

The state has said that it will use the Coastal Wetlands Planning, Protection, and Restoration Act Program as well as the Louisiana Coastal Area Program and the Coastal

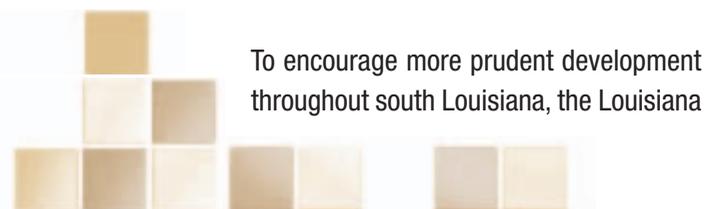


# Status of Louisiana's Coastal Protection and Restoration Efforts

Impact Assistance Program as vehicles for implementing the provisions of the Master Plan. In other words, the state will use the Master Plan as the standard by which to assess the viability of future projects. In addition, when the Department of Natural Resource's Coastal Management Division is assessing a permit application, the department will use the Master Plan as the benchmark for determining whether the permit is consistent with the state's management goals.

Because Louisiana's is a working coast, state and federal agencies must issue permits for many activities that take place there, from navigation and port related commerce, to oil and gas production, to ecotourism and agriculture. The CPR Authority is charged with ensuring that these diverse spheres of action are managed in ways that accord with the Master Plan's priorities. As a first step, the CPR Authority is taking steps to make sure that activities undertaken by its member agencies are consistent with the Master Plan, and ultimately with the priorities and implementation plans that flow from the plan. Developing methods for integrating the plan into its member agencies' decision making processes will take some time, but Act 8 mandates that the CPR Authority accomplish this function. The CPR Authority's partnerships with relevant federal agencies will be equally important for achieving a uniform level of consistency.

Land use is a key consideration as Louisiana moves its coastal protection and restoration program into higher gear. If we want to create a sustainable coast, we must make sure that our land use regulations reflect that objective. Such regulations will be particularly important given that the Master Plan recommends the continued study of, and in the case of Morganza to the Gulf, the construction of hurricane protection projects. By reducing flood risks, such projects could generate demand for growth in areas that should remain undeveloped. Land use policies that are consistent with Louisiana's coastal program must thus be established as quickly as possible.



Sea Grant Program and the Coalition to Restore Coastal Louisiana have teamed together to identify available land use planning tools as well as gaps in planning authority. Once this report is complete in the fall of 2007, the commission requests that the CPR Authority appoint a working group made up of legislators, landowners, and members of parish governments to review the document and recommend necessary follow up actions. The results of this process should provide local leaders with the directives they need to enforce smarter growth throughout south Louisiana.

The U.S. Army Corps of Engineers represents yet another avenue where coordination is mandatory. In 2005, after Hurricanes Katrina and Rita, Congress directed the Corps to prepare its own plan for protecting and restoring Louisiana's coast. Called the Louisiana Coastal Protection and Restoration Plan (LA CPR Plan), the Corps's document is due for publication in December 2007. The Corps has said that it will use the state's Master Plan as the springboard for its own deliberations. Doing so is the only sound course of action, given that the Corps and the state must approach Congress and national policy makers in a coordinated fashion. The commission and other state stakeholders hope to evaluate future drafts of the LA CPR Plan to make sure that they reflect the spirit and letter of the Master Plan (see page 9).

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## FUNDING THE PROGRAM

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In 2006 Louisiana made some progress in its quest to gain more stable funding for the coastal protection and restoration program. Congress approved an offshore revenue agreement that will give Louisiana approximately \$20 million per year until 2016. After that date, Louisiana will receive between \$300 and \$500 million or more per year. This funding level recognizes that Louisiana supplies one-third of the nation's oil and gas. In addition, the presence of oil and gas infrastructure within the wetlands has been one of the major factors in the ecosystem's deterioration, even as the wetlands themselves protect this infrastructure from storm surge and open water conditions.

# Status of Louisiana's Coastal Protection and Restoration Efforts

To ensure that this money is properly allocated, Louisiana voters overwhelmingly approved a constitutional amendment in the fall of 2006 that will place all offshore revenue not already earmarked by Congress in a "lockbox" reserved exclusively for coastal restoration and protection. The voters have thus enforced the spirit of the Congressional legislation: the allocation to Louisiana was made in recognition of the service and needs of our coast, and those dollars must go toward protecting communities and returning this landscape to health.

The same rationale spurred the passage of the Coastal Impact Assistance Program (CIAP), which Congress approved in 2005. The CIAP program will provide approximately \$523 million through 2010 for coastal restoration and infrastructure projects that address the effects of offshore oil and gas activities in Louisiana's coastal parishes. The first listing of CIAP funded projects was released in early June 2006. Overall, the projects are designed to mesh with existing efforts and to start up quickly, with construction of some projects beginning in 2009. The commission supports the program's current focus on coastal restoration, a focus that galvanized support among members of Congress and citizens.

Together, the offshore revenue allocation and the CIAP funds will be invaluable financial tools as Louisiana implements its coastal protection and restoration program. However, these sources of revenue will not be enough to finish the job. Saving Louisiana's coast will be a civil works project on the scale of the construction of the Interstate Highway System. As such, this effort will need a great deal more federal funding if it is to succeed. Progress must thus be made on two fronts: increase the national commitment to the same coast that delivers billions of dollars each year in value to the U.S. economy, and significantly upgrade the state's own long-term funding allocations to coastal restoration.

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**Progress must thus be made on two fronts: increase the national commitment to Louisiana's coast and significantly upgrade the state's own long-term funding allocations to coastal restoration.**

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For every federal contribution through the Water Resources Development Act or similar program, Louisiana must be prepared to supply a match of at least 25%. To meet the match requirement, Louisiana will need to dedicate hundreds of millions of dollars a year exclusively to coastal protection and restoration. This level of funding will support the construction of major projects as well as the adjustments that will need to be made as lessons are learned and contributions from science and engineering are factored in. Further, the state must demonstrate that it can effectively manage both state and federal funds received. Without such a commitment from Louisiana, the state that stands to lose the most from inaction on these issues, it will continue to be difficult to make a case in Washington that the nation as a whole should dedicate funds to our coast.



# Challenges Facing Louisiana's Coastal Program

## ***Challenge #1: IMPROVE COORDINATION WITH FEDERAL AGENCIES***



As it ramps up its coastal protection and restoration effort, Louisiana must work with many federal agencies, all of whom have different jurisdictions over activities taking place in the region. Chief among these federal partners is the Corps of Engineers (Corps), which has been entrusted by Congress with authority for planning, designing, and building water resources and other civil works projects.

### ***1. The LA CPR Plan***

Immediately after Hurricanes Katrina and Rita, Congress directed the Corps's New Orleans District to recommend ways to reduce hurricane related risks throughout Louisiana's coast. Called the Louisiana Coastal Protection and Restoration Plan (LA CPR Plan) and due for publication in December 2007, the document will present a range of coastal restoration and flood control strategies. Since this plan will cover much of the same territory as Louisiana's Master Plan, it is imperative that the two documents support similar approaches and priority projects. Without unanimity between the state and the Corps in these areas, Louisiana's efforts to present a clear vision to Congress will be undercut, and momentum for moving the coastal program forward will be seriously impaired.

Given the need to speak with one voice at this critical juncture, it is fortunate that the collaboration between the state and the Corps is being more fully activated. Staff members from the state Departments of Natural Resources and Transportation and Development are working with the Corp's planning team in a support capacity, and a structure for state oversight of the Corps effort has been created. In addition the Corps has indicated its willingness to accord the state the role of full partner in the LA CPR Plan's development. But doing so is an enormous challenge, one that requires both the Corps and state to create new ways of working together. The state will continue to need in-depth and timely status reports on the plan as it is being developed. In addition, when there is a divergence of opinion as to how a particular aspect of the plan should be

presented, state personnel must be able to work with the Corp's leadership to resolve the issue. The commission hopes that the state's leaders will receive the information and access they need to appropriately participate in the Corp's efforts, so that the LA CPR Plan will represent an accurate assessment of the state's best options.

### ***2. Expanding Louisiana's partnership with the Corps***

The Master Plan represents an important step toward intensifying Louisiana's commitment to restoring and protecting the coast. But as it pursues this course of action, the state must also necessarily expand its relationship with the federal agency authorized to construct many of the Master Plan's provisions—the Corps of Engineers. To this end, Louisiana must build its own scientific and managerial capacity (see Challenge #3 below), so that the state can continue to lead the process in a credible and competent manner. In addition, the state must establish regular meetings with decision makers at Corps Headquarters as well as the office of the Assistant Secretary of the Army. The Corps personnel at these levels set the agenda for the division and district offices, and they need to hear the state's assessments of how the process is unfolding. Without this direct line of communication with Corps leaders, it is unlikely that the state-Corps partnership will proceed as effectively as it otherwise could.

### ***3. Other federal partnerships***

The state must also augment its relationships with the many federal agencies whose missions may be affected by Louisiana's new coastal restoration and flood protection measures. In order to avoid running afoul of federal agencies' mandates, the state must identify potential areas of conflict in advance. The state must then meet with relevant points of contact at each agency to discuss how the projects can best be managed for mutual gain. Such conversations would have the added benefit of further developing crucial relationships between the state and its federal partners. As the state articulates its plans and needs as well as its willingness to act preemptively to forestall problems, Louisiana will gain allies and increase opportunities for institutional support.

# Challenges Facing Louisiana's Coastal Program

## **Challenge #2: BROADEN THE "FAST TRACK" CONCEPT**



It has become a truism that Louisiana cannot tolerate a business as usual attitude, either within state government itself, or among the many federal partners that will work with us to bring the coastal program to fruition. Along these lines, the need to fast track federal action has begun to generate increased debate. The problem lies not with regulations requiring rigorous planning, technical oversight, or public review, but with the procedures that govern authorizing, appropriating funds for, and budgeting for projects.

Today, the main vehicle for authorizing coastal restoration and protection measures is the Water Resources Development Act (WRDA). It has been seven years since Congress passed a WRDA bill, a delay that has kept many crucial projects for Louisiana frozen at the concept stage. Should a WRDA bill be approved this year, legislation has been proposed to fast track projects. However, WRDA itself does not provide funding. Dollars are only disbursed in the appropriation and budgeting stages, during which projects encounter further delays. Even after a particular project has been authorized through WRDA or any other act, the Executive Branch and Congress must grant additional approvals as the project moves through the various phases of planning, design, and construction. At best, this requirement can add months or years to a project's total construction time. At worst, worthwhile projects are sidelined due to the vagaries of the political process.

The need to overhaul federal methods for authorizing, appropriating, and budgeting goes beyond WRDA and its effects on Louisiana. Florida, California, Maryland, the Great Lakes states—all are attempting to implement major restoration and/or flood protection initiatives, and all are struggling with the same unwieldy federal procedures. This situation is untenable given the need for all of these states to act quickly to save their respective ecosystems.

The scale of the problem precludes a quick legislative fix. In addition, Louisiana citizens cannot depend on Congress

to change the rules just for us. Instead, Louisiana should be one of a coalition of states that presses for modifications in the way the federal government allocates resources for major ecosystem initiatives. These modifications would expedite the process while retaining safeguards for full public disclosure and the appropriate use of taxpayer dollars. Such a coalition is increasingly being discussed among stakeholders within Louisiana and other affected states. The commission encourages state leaders to support this dialogue.

## **Challenge #3: INCREASE SCIENTIFIC AND MANAGERIAL CAPACITY**



Calls for increased state capacity are a regular feature of the commission's annual report, and recent events make this issue particularly germane. A suite of actions like the one outlined in the Master Plan cannot be achieved without significantly upgraded staff and managerial structures at the state level. Indeed, Louisiana has little chance of attracting the federal funding it needs to implement the Master Plan unless our state demonstrates that these upgrades are being made.

### **1. Improving managerial capacity**

The ongoing discussions among the Governor's Office, DNR, and DOTD mentioned above (see page 7) represent important progress toward establishing a state structure for managing a multi-billion dollar program over successive decades. Such a structure must be able to coordinate the activities of different agencies in ways that build public confidence in the state's use of time and resources. Credibility will always be an issue for a state that is receiving large infusions of federal dollars, and the hurricane recovery funding flowing to our state has already made Louisiana the subject of intense national scrutiny. Such scrutiny will increase as the coastal program gains traction. We must embrace the accountability that this high profile program will require and set up institutional arrangements that allow us to exceed expectations.

# Challenges Facing Louisiana's Coastal Program

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## *2. Improving scientific capacity*

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**Louisiana must show that it can bring an unprecedented degree of technical quality to all decision making related to the coastal restoration and protection program.** 

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Now more than ever, Louisiana must show that it can bring an unprecedented degree of technical quality to all decision making related to the coastal restoration and protection program. Our efforts should be distinguished by the scientific and engineering expertise we bring to the table and by the methods we use to ensure that this expertise is rigorously applied. The Working Group for Post-Hurricane Planning for the Louisiana Coast in their report, “A New Framework for Planning the Future of Coastal Louisiana After the Hurricanes of 2005” offers important suggestions in this regard. For example, the report suggested that a Coastal Assessment Group be made part of the state’s management structure. Such a group would be composed of policy experts as well as nationally recognized scientists and engineers—all of whom would be engaged at multiple levels of decision making within Louisiana’s coastal program. The group would ensure that shifts in priorities and project parameters are based on the best available data and that the adaptive management process is driven by science not politics. Working in concert with the commission, the group would also identify and help resolve potential regulatory, legislative, and institutional obstacles that could hinder progress. Coordinating the input of Louisiana’s many coastal scientists, as well as the many outside experts who are now monitoring Louisiana’s efforts, would be another important task that the group would address.

To further support the coordination objective, the commission supports the idea of creating an Applied

Coastal Engineering and Science Program. By resolving data gaps and identifying technical advancements, the program could remove many of the scientific and engineering unknowns that keep important projects from being built. The program would coordinate with and support the LCA Science and Technology Program, which focuses exclusively on ecological and restoration issues.

These actions will enable the state to participate as a full technical partner with the Corps, leading the way when needed, and fully considering the applicability of options suggested by Corps personnel. Equally important, of course, will be the Corps’s willingness to step outside traditional lines of communication to establish a give and take with the state on all technical issues under consideration.

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## ***Challenge #4: CONTINUE TO ENGAGE THE PUBLIC***

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The hundreds of citizens who attended meetings and submitted comments as the Master Plan was being developed are to be commended for their willingness to share their ideas at a pivotal time. Similarly, the state’s planning team should be recognized for rewriting many sections of the plan in response to ideas shared by citizens, local officials, and scientists. Extended debate and collaboration with the public about the Master Plan allowed an in-depth exchange of ideas, which led to a better product. The state’s experience with the Master Plan demonstrates that the time is past when government agencies in Louisiana can hold perfunctory public comment periods, disregard the bulk of input received, and still expect to make decisions that are supported by the larger community.

This interaction between government and the public will only grow in importance as the state seeks to accommodate the many diverse constituencies that live and work in south Louisiana. The issues involved will affect people’s homes and livelihoods; for example, will a given community receive levee protection? If so, what level is called for? Which areas will remain available for certain

## Challenges Facing Louisiana's Coastal Program

kinds of commercial fishing, and which areas will experience shifts in fish habitats? Which areas will remain off limits for development? These kinds of questions can only be answered equitably if citizens, policy makers, local officials, scientists, and engineers are all engaged in weighing the tradeoffs and crafting solutions. The commission looks forward to seeing an expanded role for citizen and stakeholder input—at every stage of program decision making.

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### ***Challenge #5: PROTECT THE PUBLIC TRUST***



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**The court stated what most people who live and work in coastal Louisiana already know: if we do not move beyond parochial interests and consider the entire ecosystem, we risk losing it all—fisheries, habitat, communities, jobs.**

When these varied groups participate in the process, conflicts of interest will arise. Properly mediating the conflicts will require that the state and its partners be directed by the overarching desire to protect and sustain the entire ecosystem for the common good. In its 2004 decision regarding the case of *Avenal v. State of Louisiana*, the Louisiana Supreme Court offered some guidance in this area. The court stated that the state simply could not allow south Louisiana to wash away, and that the issue in this particular case, the displacement of certain oyster beds, had to be tolerated under the doctrine of public trust if the state was to meet its larger aim of restoring the coast. The

court stated what most people who live and work in coastal Louisiana already know: if we do not move beyond parochial interests and consider the entire ecosystem, we risk losing it all—fisheries, habitat, communities, jobs. As is now widely recognized, the need to protect the public good is not just a matter of sound governance in Louisiana, it is a prerequisite for survival.

This does not mean, however, that the state should run roughshod over individual rights as it implements its coastal program. On the contrary, the impacts of future restoration and protection projects must be planned for and mitigated whenever possible, with affected citizens given the time and information they need to adjust. The need to engage citizens in these kinds of discussions highlights the importance of establishing mechanisms for ongoing and substantive public involvement.



The impacts of Hurricanes Katrina and Rita continue to unfold in Louisiana two years later, with many citizens and businesses still struggling to recover, and others rebuilding in ways that offer hope for an improved future. The realm of coastal restoration and protection has seen the same mix of challenge and progress. As this report has documented, many difficult problems must be resolved. At the same time, the Louisiana Legislature's adoption of Act 8 provided the tools and mandate needed to surmount previously intractable obstacles at the state level, and the new Master Plan offers a preliminary assessment of how Louisiana can create vital and secure communities throughout the coastal region. The relatively rapid pace of much of this change is unprecedented, and the state is to be commended for presenting a vision for change just 18 months after the storms' passage.

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**Funding, policy, science, technology—we must set new standards for excellence in all of these areas if we are to create a coast that supports our communities.**

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Building upon this hard won progress is the task at hand. The scale of what we must accomplish and the urgency with which our objectives must be pursued have led us into new territory. Funding, policy, science, technology—we must set new standards for excellence in all of these areas if we are to create a coast that supports our communities. The members of the commission believe that we can succeed, if only because we have seen firsthand the passionate engagement of so many of the coast's citizens. Be they homeowners, scientists, or business people, as a group they have shown themselves eager not simply to save the coast, but to accept in a spirit of fairness the changes that will be a necessary part of south Louisiana's future. This spirit of creative commitment bodes well, and it should invigorate all those involved in restoring and protecting this uniquely abundant part of the world.

