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# **Saving Louisiana's Coastal Wetlands**



## **The Need For a Long-Term Plan of Action**



Report of The Louisiana Wetland Protection Panel



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# **SAVING LOUISIANA'S COASTAL WETLANDS**

## **The Need for a Long-Term Plan of Action**

### **Report of the Louisiana Wetland Protection Panel**

**Convened By**

**Louisiana Geological Survey**

**U.S. Environmental Protection Agency**

## SUMMARY

America's largest wetland community is losing its marshes and swamps to the Gulf of Mexico. The wetlands of coastal Louisiana are being converted to open water at a rate of fifty square miles per year, largely as a result of maintaining shipping lanes, the dredging of canals, flood control levees, and the withdrawal of oil and gas. If current trends continue, an ecosystem that supports the nation's oldest bilingual culture, 25 percent of the nation's fishing industry, and North America's largest fur-producing area, will be mostly lost in the next century. This process could be further accelerated if sea level rises one or more feet as a result of the projected global warming from the greenhouse effect.

Over the last twenty years, various solutions have been suggested to save Louisiana's coastal wetlands. Proposals have included unharnessing the Mississippi River; breaching the levees to allow river water to reach the wetlands; building giant levees along the entire coast; restoring the rapidly disintegrating barrier islands; filling the many canals that have been dredged through the marsh; or combinations of these alternatives. Thus far, however, most investigations have focused on specific impacts and responses, not on a comprehensive solution. No one has systematically synthesized the available information to determine what must be done to save 10, 25, or 50 percent of Louisiana's coastal ecosystem, or developed a comprehensive tool for such an analysis.

Although additional scientific research will be necessary, sufficient information is available to assess this question and commence the development of a plan for saving Louisiana's wetlands. The Louisiana Wetland Protection Panel was convened by the Louisiana Geological Survey and the U.S. Environmental Protection Agency to outline a study to evaluate strategies to substantially reduce wetland loss in coastal Louisiana through the end of the next century, for use in developing a comprehensive wetland protection plan.

This report provides an overview of the problem and outlines the analysis that must be synthesized to develop a plan, describing the causes of wetland loss, possible options to protect wetlands, and ongoing activities to address the problem, and laying out a study to evaluate comprehensive solutions to wetland loss in Louisiana.

Many federal, state, local, and private organizations will eventually have to address the loss of Louisiana's wetlands. We hope that this report accelerates the process by which these groups become part of the solution to the problem of wetland loss in coastal Louisiana.

## CONCLUSIONS

1. **Wetland loss in Louisiana is a problem with national importance.** The coastal wetlands of Louisiana support a major fraction of the U.S. fishing, hunting, and trapping industries, and indirectly, the poultry industry. Unlike wetland loss elsewhere which mostly results from private actions, the coastal wetland loss in Louisiana results primarily from activities conducted or authorized by government agencies.
2. **Although natural processes are involved, human activities are responsible for the net loss of wetlands.** These activities include levees, channelization, canals, draining and filling of land, and human modification of drainage patterns.
3. **Wetland loss could be reduced by combinations of marsh restoration and management;** Mississippi river diversion of freshwater, nutrients, and sediment; barrier island and beach stabilization; and modification of human activities.

4. **A comprehensive plan of action is needed.** Such a plan should have a reasonable chance of protecting a large fraction of Louisiana's wetlands through the next century. This document has outlined twenty options to be evaluated in the formation of such a plan.
5. **A number of institutional impediments must be overcome before a consensus can be obtained on the design and implementation of a plan of action.**
6. **No single approach will adequately curtail wetland loss in Louisiana.**
7. **Initial formulation of an action plan should not await completion of additional scientific studies.** Nevertheless, development of the plan will define additional research needs.
8. **Ongoing and approved remedial measures should go forward on schedule.** The need for a comprehensive plan of action does not imply that previously approved projects should be delayed.
9. **If projections that the greenhouse effect will raise sea level one foot or more in the next fifty years are accurate, the need for immediate action is much greater than previously thought.** The global warming has not so far been an important factor in causing wetland loss in Louisiana. However, long-term plans should consider the rise in sea level that could occur in the next fifty to one hundred years. The possibility that sea level may eventually rise one or more meters is not a reason to give up on efforts to protect coastal wetlands. It is another reason to implement measures to restore the delta's former ability to keep pace with subsidence and sea level rise through sedimentation and other processes.

LOUISIANA WETLAND PROTECTION PANEL

Barney Barrett  
Louisiana Department of Wildlife and Fisheries  
Baton Rouge, Louisiana

Robert Buisson  
U.S. Army Corps of Engineers  
New Orleans, Louisiana

David Chambers  
Louisiana Geological Survey  
Baton Rouge, Louisiana

Mark Chatry  
Louisiana Department of Wildlife and Fisheries  
Grand Isle, Louisiana

Adrian Combe  
U.S. Army Corps of Engineers  
New Orleans, Louisiana

David Fruge  
U.S. Fish and Wildlife Service  
Lafayette, Louisiana

Sherwood Gagliano  
Coastal Environments, Inc.  
Baton Rouge, Louisiana

Chip Groat  
Louisiana Geological Survey  
Baton Rouge, Louisiana

Oliver Houck  
Tulane Law School  
New Orleans, Louisiana

Ted LaRoe  
U.S. Fish and Wildlife Service  
Washington, D.C.

Irving A. Mendelsohn  
Louisiana State University  
Baton Rouge, Louisiana

Donald Moore  
National Marine Fisheries Service  
Galveston, Texas

Stanley Riggs  
East Carolina University  
Greenville, North Carolina

Jens Sorensen  
Brookline, Massachusetts

Robert Stewart  
U.S. Fish and Wildlife Service  
Slidell, Louisiana

Johnny Tarver  
Louisiana Department of Wildlife and Fisheries  
Baton Rouge, Louisiana

Paul Templet  
Louisiana State University  
Baton Rouge, Louisiana

Gordon Thayer  
National Marine Fisheries Service  
Beaufort, North Carolina

Norman Thomas  
U.S. Environmental Protection Agency  
Dallas, Texas

James G. Titus  
U.S. Environmental Protection Agency  
Washington, D.C.

John Weber  
U.S. Army Corps of Engineers  
New Orleans, Louisiana

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