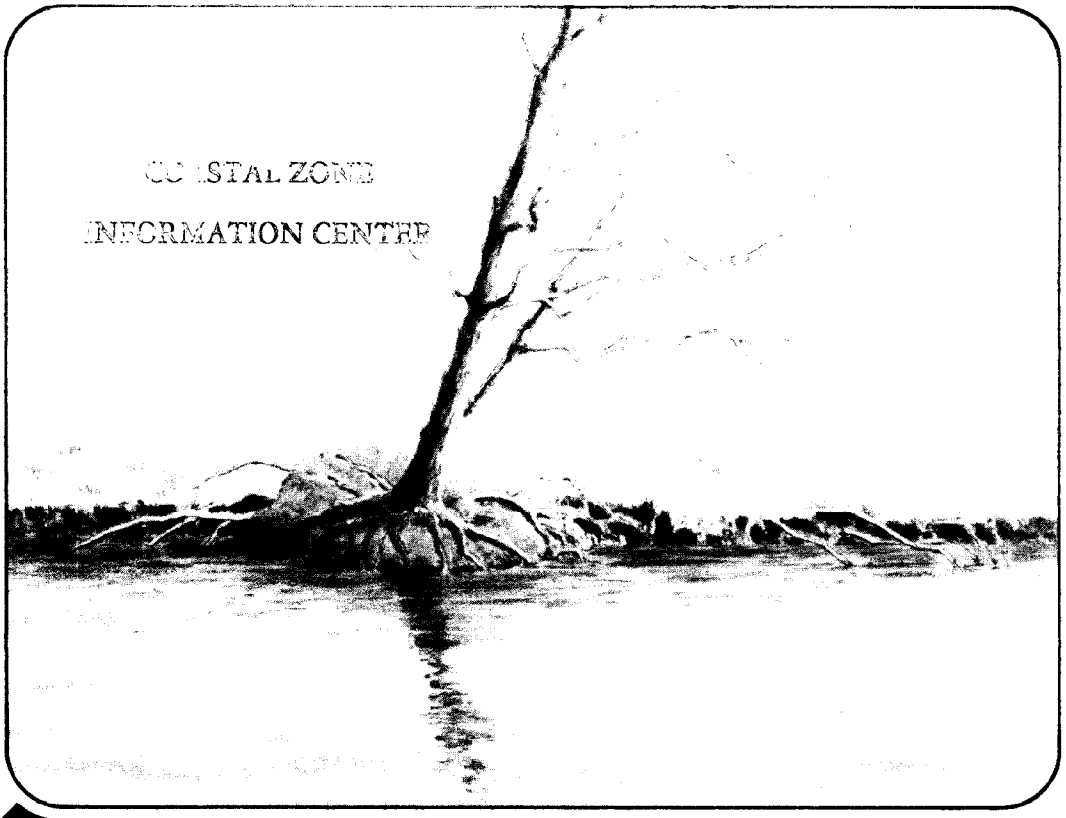
# Crisis on Louisiana's Coast



COASTAL ZONE
INFORMATION CENTER

# ...America's Loss

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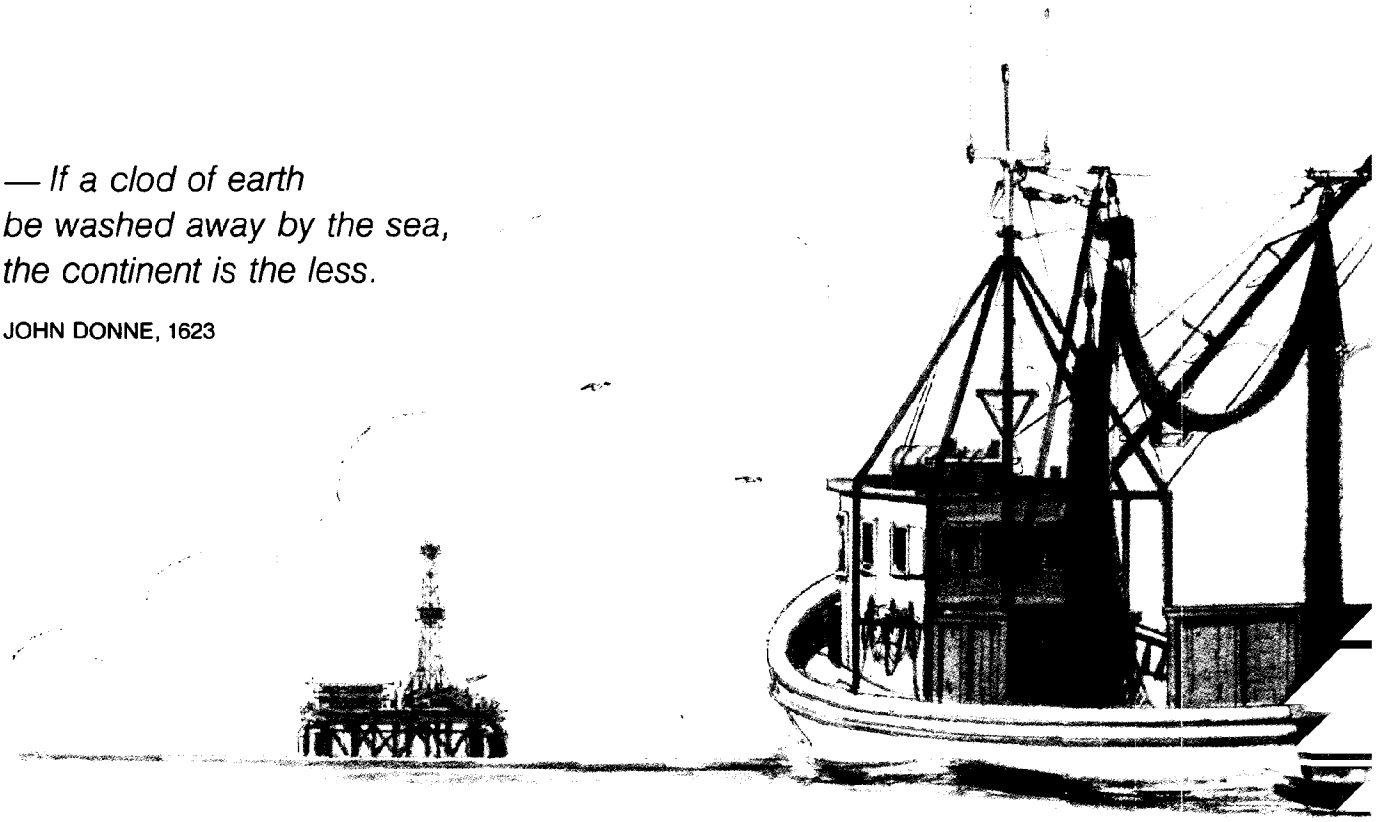
*— If a clod of earth*
*be washed away by the sea,*
*the continent is the less.*

JOHN DONNE, 1623



**America's coastline is in trouble. Slowly, relentlessly, wetlands are disappearing. The loss threatens a nationally significant resource on every shore — in the northeast, the southeast, on the Gulf of Mexico, on the Pacific coast. But it's in Louisiana — with 40 percent of the coastal marshes in the continental U.S. — that 80 percent of the loss takes place.**

In Louisiana, a world is being lost — the unique and varied, almost unbelievably productive world of coastal marshes. This world is a national resource that produces billions of dollars ... an ecosystem that supports over 30 percent of the nation's fisheries, 22 percent of the nation's oil and gas production, and one of the country's oldest bilingual cultures.

## The Loss

Each year, somewhere along Louisiana's coastline, 40 to 60 square miles of incredibly fruitful marsh disappear forever. The loss is a national tragedy, but what does it really mean ...

— to the more than 2 million people who live and work and play in Louisiana's wetlands?

— to the seafood industry that distributes 1.6 billion pounds of fish and shellfish from the Louisiana marshes to the nation each year?

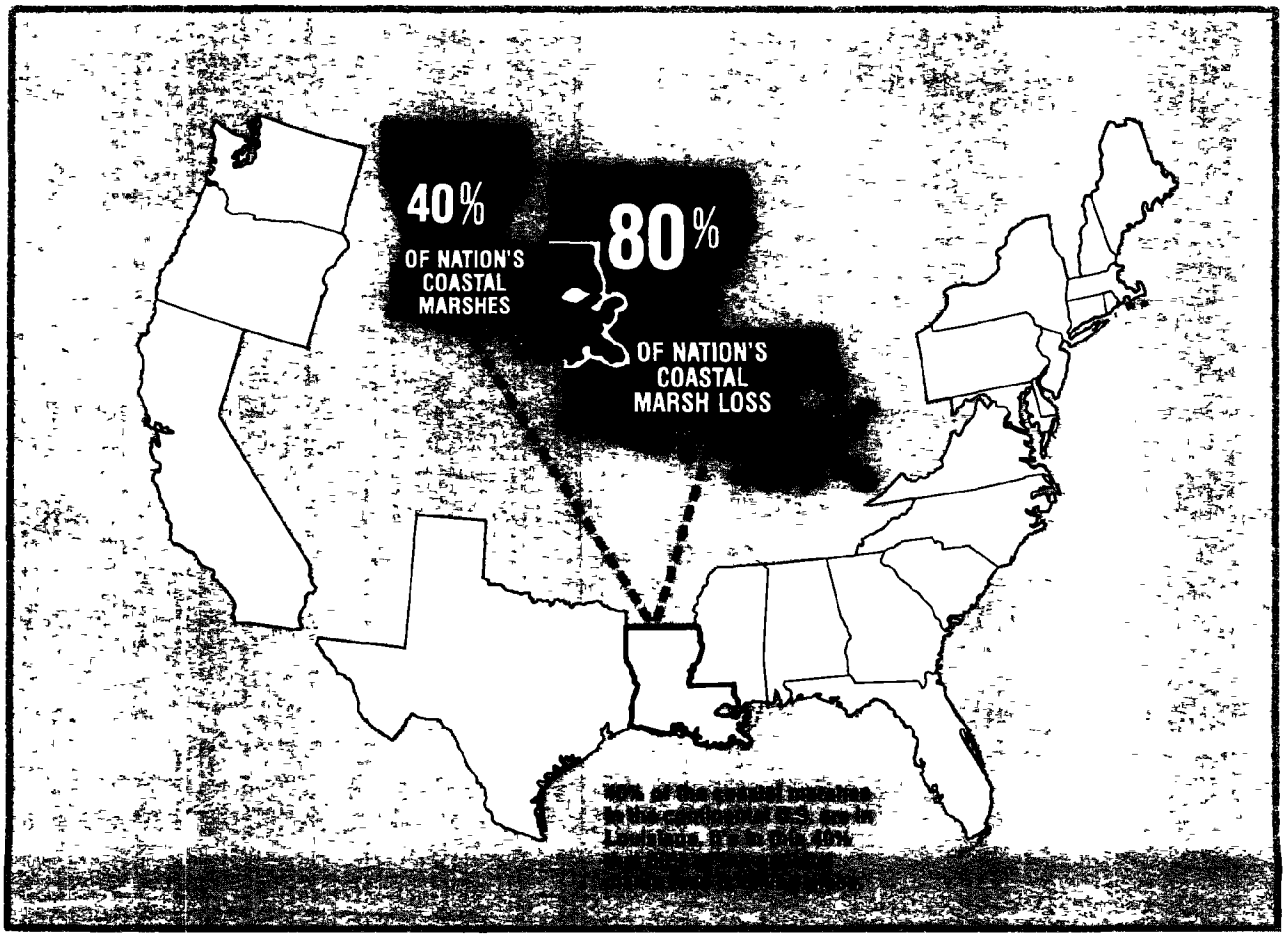
— to the people who buy over 2 million fur pelts harvested from Louisiana's wetlands each year?

— to the 230 vessel operators who use Louisiana's inland waterways to transport their 104 million tons of cargo each year?

## Louisiana's Wetlands: a National Resource

The wetlands along the nation's coastline are a unique resource of immense value and multiple functions. By their mere presence, coastal marshes buffer destructive tidal surges caused by hurricanes and storms and reduce flood damages. Marshes trap and hold the fresh water that is a major water supply source for coastal communities, agriculture, and industry. Marshes retard saltwater intrusion into these coastal freshwater supplies.

The growth and decay of the marsh provides essential ingredients to fuel the productive coastal ecosystem, a feeding, spawning, and nursery ground for a wealth of fish, shellfish, and wildlife.

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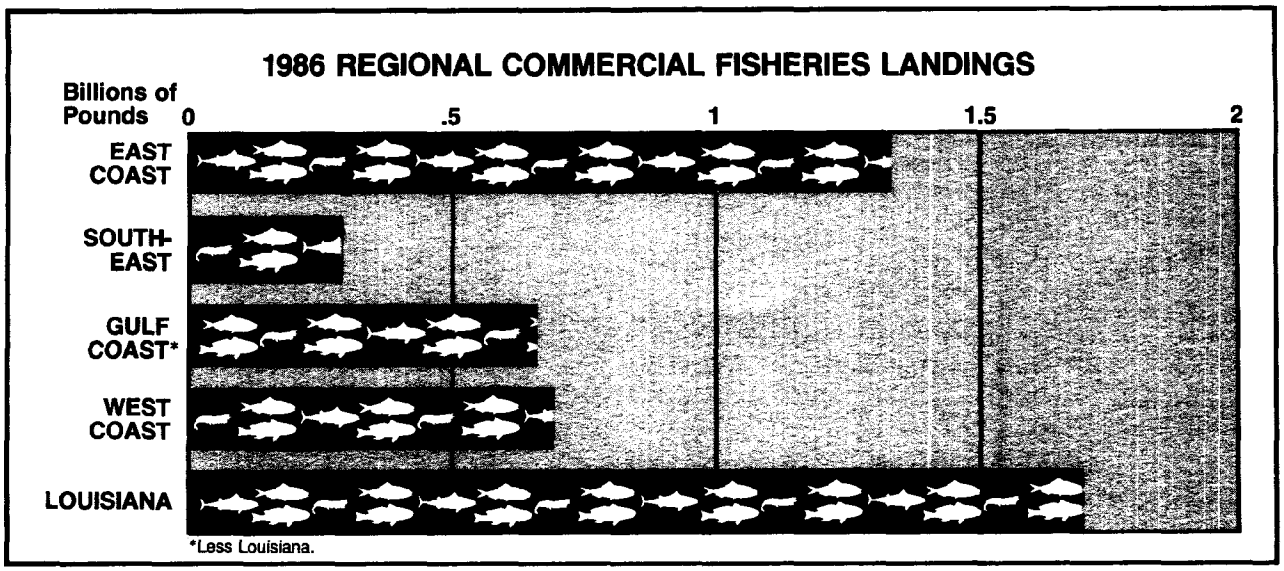



**1.6 billion pounds of fish and shellfish are distributed to the nation each year from Louisiana's marshes — more than from any other coastal region in the country.**

## The Contribution to the Nation

Some 40 percent of the coastal marshes in the continental United States are located along Louisiana's Gulf of Mexico coastline. This watery world on the coast of Louisiana is one of the earth's most productive ecosystems.

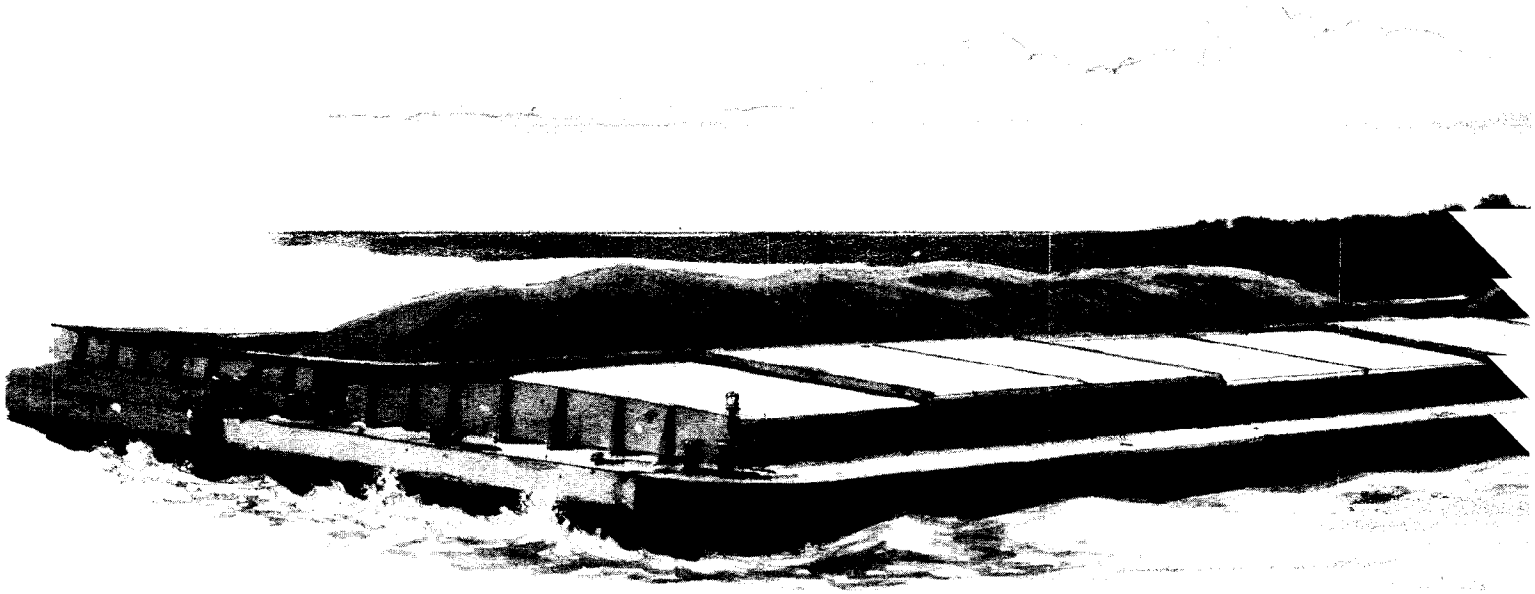
Each year, Louisiana's marshes produce ...

— a commercial fish and shellfish harvest worth $680 million.

— 40 percent of the nation's wild fur and hides harvest, a harvest with an estimated value of $17 million.

The wetlands, estuaries, and barrier beaches and islands of coastal Louisiana are at the southern end of the major U.S. wild bird migration route, the Mississippi Flyway. Waterfowl hunting in this flyway is valued at $58 million annually. Nearly four million ducks and geese — more than 66 percent of the waterfowl that use the Flyway — find a winter haven in these wetlands.

These coastal marshes are ideal for sport fishing, hunting, and water-oriented recreation. It's where the weekend fisherman measures the catch in the number of ice chests filled rather than the number of fish on a stringer. The out-of-pocket expenses of those who recreate in Louisiana's coastal wetlands exceed $337 million annually.



## The Nation's Investment

The United States, the State of Louisiana, parishes and municipalities, and private industry have made a tremendous investment in the coastal area to develop nationally important resources and provide for the needs of the people who live and work in the coastal wetlands.

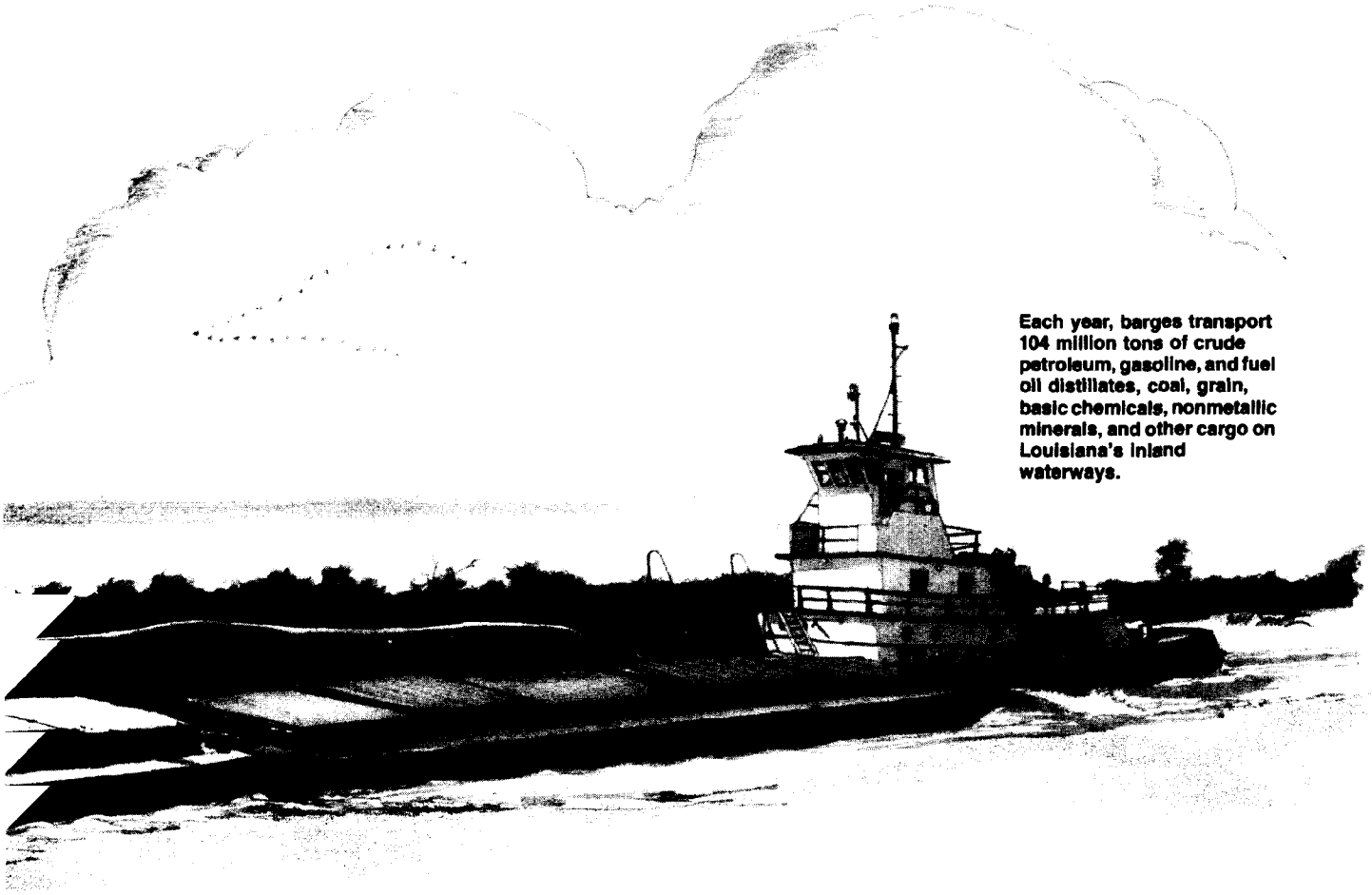
Federal, state, and local interests and private industry have constructed an extensive inland navigation system and deepwater ports to link major U.S. producers with worldwide consumers. New Orleans is the terminal point for an inland navigation system that has the largest capacity of any in the world — the Mississippi and Ohio Rivers system. Three deepwater ports in Louisiana are ranked in the top twenty in the nation for total shipping tonnage — New Orleans is No. 2, Baton Rouge is No. 5, and Lake Charles is No. 20.

To make the area safe to live and work in, levee systems have been built to prevent flooding.

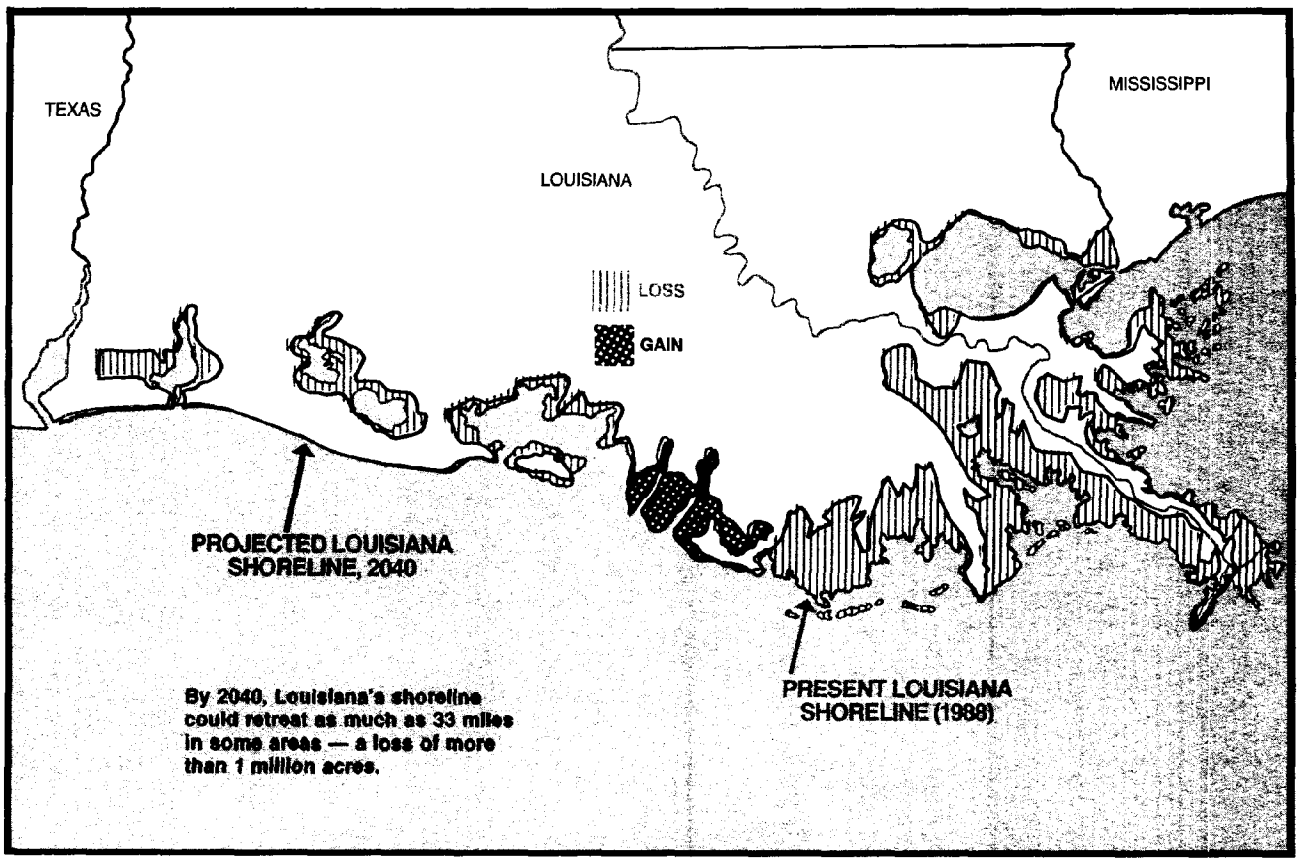
A land transportation system has been built for interstate commerce.

Extensive mineral reserves beneath the wetlands and offshore waters have been tapped to supply a large percentage of the nation's oil and natural gas needs. In 1985, $27.1 billion in crude petroleum and natural gas was extracted from the wetlands — 16 percent of the nation's total production of petroleum and 29 percent of the total production of natural gas.

This investment, along with the abundance of natural resources, has made enormous economic growth possible — growth that has contributed significantly to the national economy.



**Each year, barges transport 104 million tons of crude petroleum, gasoline, and fuel oil distillates, coal, grain, basic chemicals, nonmetallic minerals, and other cargo on Louisiana's inland waterways.**




## The Vanishing Wetlands

But, today we face a crisis. In the midst of this wealth of productivity and development investment, devastating land loss threatens the future of Louisiana's coastal wetlands. The rate of loss is now estimated to be 80 percent of the nation's annual loss of coastal wetlands.

Between 1956 and 1978, about 560,000 acres of marsh were lost along Louisiana's coast, mostly by conversion to open water. This translates into an average yearly loss of 40 square miles. Over the years, another 790,000 acres of wetlands have been converted to agricultural, urban, and industrial uses.

The U.S. Army Corps of Engineers estimates that between now and the year 2040 nearly one million more acres of wetlands will be lost — an area 1⅓ times larger than the State of Rhode Island. This means that a total of 2.4 million acres of wetlands will have been lost or converted to other uses by 2040.

If the rate of marsh loss is not reduced, the Gulf shoreline will advance inland as much as 33 miles in some areas. If the sea invades the Louisiana coastal wetlands this far, Federal, state, local, and private investments will be jeopardized. Municipal and industrial water supplies will be threatened. Coastal communities will be more vulnerable to hurricane tidal surges and flooding. Fish and wildlife and recreational resources will be lost.

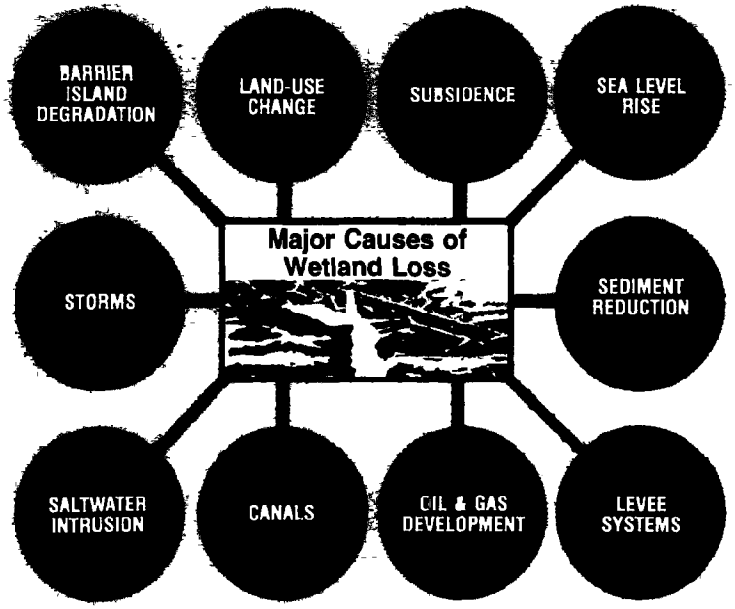
## Why Are Louisiana's Wetlands Disappearing?

Coastal and deltaic processes are too complex to permit easy answers. No single cause can be pointed to as the culprit in the loss of the wetlands. Each human-induced and natural force acts upon the other, synergistically intensifying the effect of each cause. The figure "Major Causes of Wetland Loss" shows the continuous interrelationship among all these causes. These 10 major causes of wetland loss account for differing percentages of the total loss.

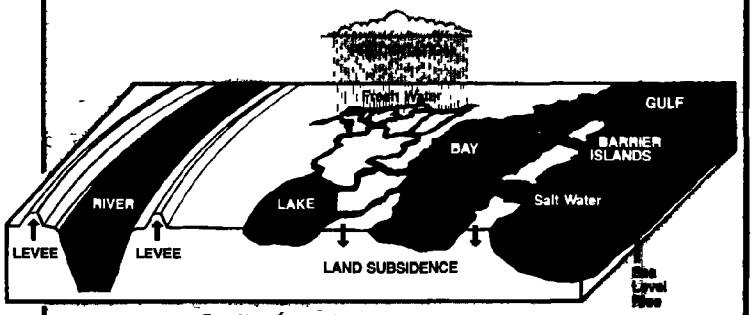
### *The Impact of Human Activities*

The activities of people in the coastal wetlands contribute significantly to wetland loss. Indispensable flood protection in the floodprone lower Mississippi Valley and nationally important economic development in the Louisiana coastal wetlands have caused a major part of the wetland loss.

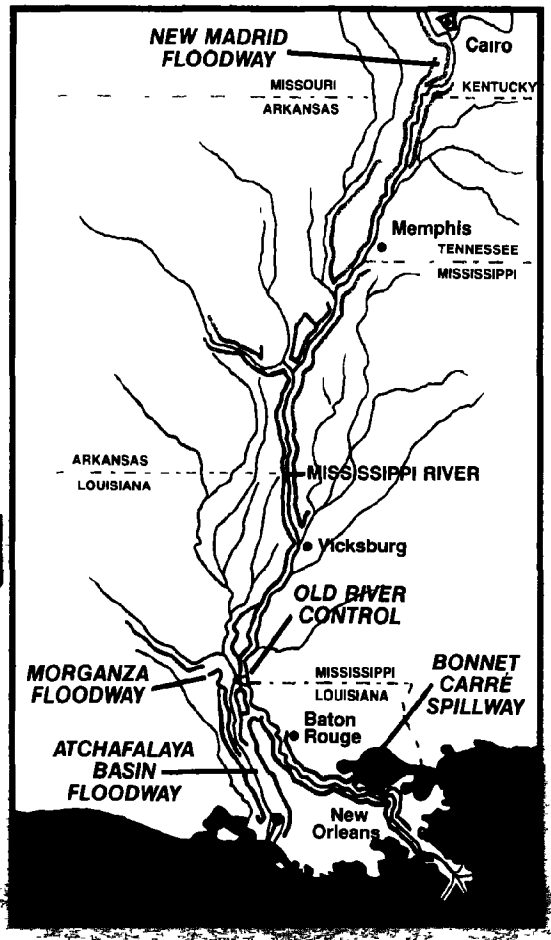
Since the great flood of 1927, protecting states along the lower reaches of the Mississippi River and its tributaries from the devastation of annual flooding has been a national imperative. Recognizing this, the nation has invested $5.9 billion in building the world's largest flood control project — the Mississippi River and Tributaries Project. Since 1928, the MR&T Project




**The MR&T Project protects the lower Mississippi valley from disastrous floods, such as the 1927 flood — 26,000 square miles from Missouri to Louisiana were inundated — 650,000 people lost their homes — flood damages cost over $1.5 billion in today's dollars.**




**Flood control levees prevent the river's natural [illegible]. Without these sediment-rich [illegible] are lost to [illegible] and saltwater intrusion.**



Source: U.S. Fish & Wildlife Service (NWRC)

**THE MISSISSIPPI RIVER DELTA IN TRANSITION**

**Over 98,000 acres — 51% — of the wetlands within the Mississippi River delta were lost between 1956 and 1978.**

has prevented $111.3 billion of flood damages.

But, the flood control levees of this huge project have confined the river between its banks and changed the natural annual hydrologic regime. In a natural hydrologic cycle, the swollen Mississippi River would overflow its banks every spring, flooding the adjacent marshes with nutrient- and sediment-rich water. These sediments and nutrients would build and sustain the diversity of the marsh.

Since levees were built for flood control and for protection of national and international navigation, about the only water that flows into the wetlands is rainfall. In addition, the Mississippi River carries 183 million tons of sediment down to the Gulf of Mexico each year. Much of this sediment is not building new wetlands, but instead is dropping off the edge of the continental shelf into the deep waters of the Gulf.

With no annual overbank flood of fresh water from the Mississippi River to push back intruding saltwater, the wetlands that aren't tolerant to salt are being killed and replaced with open water ponds. These new open water areas increase the interface between water and wetlands, causing even more erosion. Without the annual flow of fresh water containing enriching nutrients and sediment, most of Louisiana's wetlands are sinking out of sight.

In this fragile coastal environment, economic development activities interact with and intensify natural processes. Leveeing, channelization, oil exploration, and agricultural, urban, and industrial expansion accelerate the rate of wetland loss.

The wetlands are laced with 8,200 miles of navigation, drainage, and petroleum access canals. Wetlands are lost during excavation of the canals and are buried as the dredged material is piled next to the canals. Canals interrupt water and sediment flow over the wetlands. These canals also segment the wetlands and expose them to erosion. Saltwater quickly flows into the wetlands through these canals and causes even greater erosion.

### *Nature's Share of the Loss*

Nature is also responsible for a share of the wetland loss. The long-term forces of subsidence, sea level rise, saltwater intrusion, and erosion have caused significant changes in the relative land and water surface elevations.

Subsidence causes the wetlands to sink an estimated 1.8 feet per century. Rising sea levels cover the wetlands with an additional one-half foot of water per century.

The sinking land and rising sea levels together account for much of the wetland loss. These factors intensify saltwater intrusion and erosion and accelerate the conversion of wetlands to open water. Other minor wetland losses occur as a result of storm-generated waves along Louisiana's 40,000 miles of tidal shoreline and barrier islands.

## What Does It Mean to Lose 1 Million More Acres of Wetlands?

Without action now, the Gulf of Mexico estuarine-dependent fishery will probably decline as another 1 million acres of wetlands are lost between today and the year 2040. This decline will mean that by 2040 commercial fish and wildlife harvests will be down to about 70 percent of the present harvest. The loss of such a large part of the present harvest will have a national impact. Almost 60 percent of the entire Gulf of Mexico annual shrimp harvest comes from the Gulf waters of Louisiana's rich coastal marshes. This is 46 percent of the nation's annual shrimp harvest.

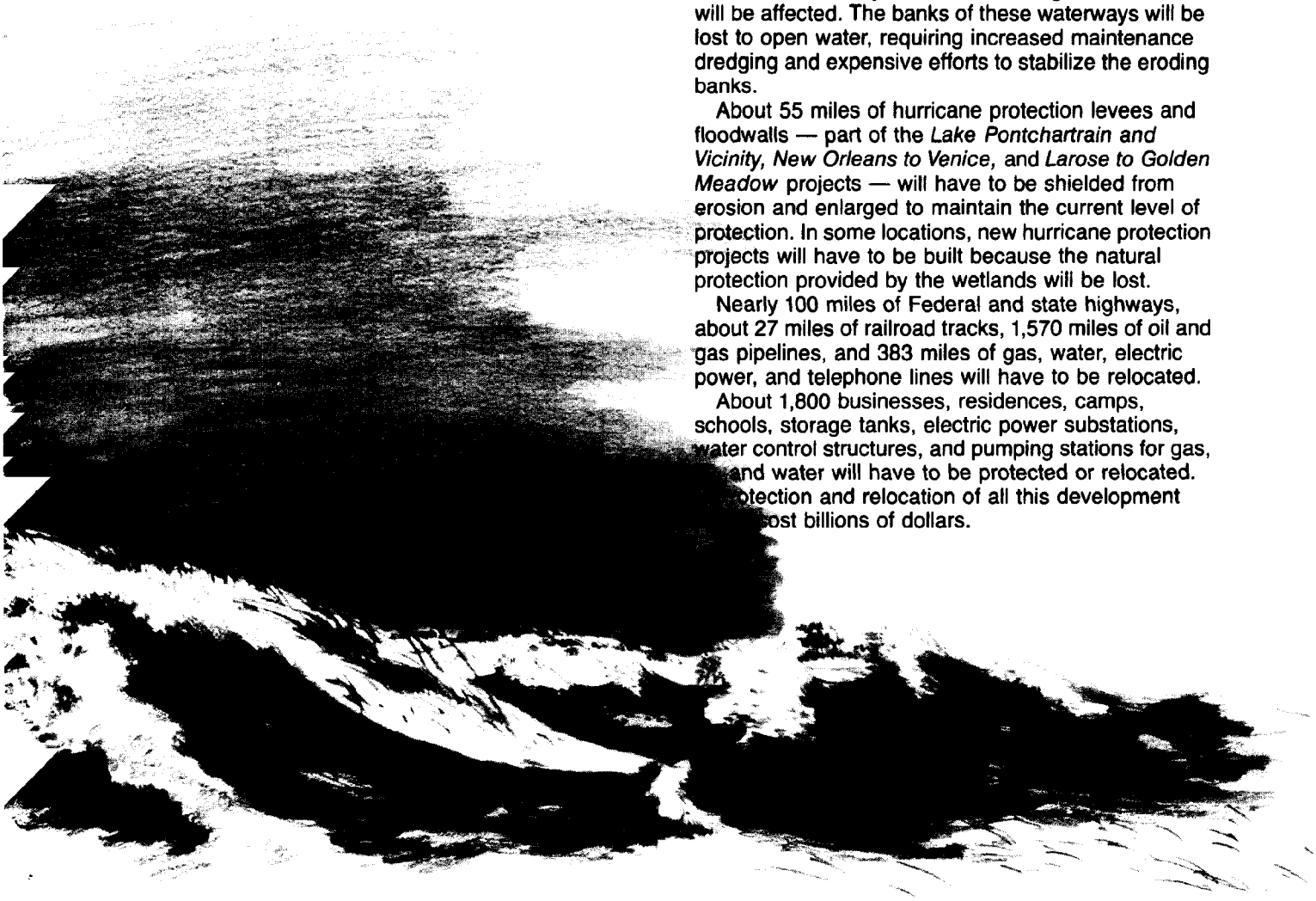
### A Multi-Billion Dollar Threat

Loss of the coastal wetlands will threaten most of the development investment the nation and the state have made in the coast and will severely diminish related job opportunities. An estimated 155 miles of banks in portions of major waterways built by Federal and state governments — the Gulf Intracoastal Waterway, the Mississippi River-Gulf Outlet, the Barataria Waterway, the Houma Navigation Canal — will be affected. The banks of these waterways will be lost to open water, requiring increased maintenance dredging and expensive efforts to stabilize the eroding banks.

About 55 miles of hurricane protection levees and floodwalls — part of the *Lake Pontchartrain and Vicinity, New Orleans to Venice,* and *Larose to Golden Meadow* projects — will have to be shielded from erosion and enlarged to maintain the current level of protection. In some locations, new hurricane protection projects will have to be built because the natural protection provided by the wetlands will be lost.

Nearly 100 miles of Federal and state highways, about 27 miles of railroad tracks, 1,570 miles of oil and gas pipelines, and 383 miles of gas, water, electric power, and telephone lines will have to be relocated.

About 1,800 businesses, residences, camps, schools, storage tanks, electric power substations, water control structures, and pumping stations for gas, and water will have to be protected or relocated. otection and relocation of all this development ost billions of dollars.



## The Search for Answers

### Past Accomplishments

In the early 60's, it became frighteningly apparent that Louisiana was facing catastrophic loss of its wetlands. Since then, Federal, state, and local government agencies have been developing ways to study and understand the problem. Federal agencies with large-scale construction and regulation responsibilities, as well as state agencies with the basic charge to preserve and maintain the wetlands and implement measures to protect them, have conducted studies and research, probing for reasons for the wetland loss and potential responses.

Massive inventories of data on fish and wildlife resources in Louisiana's wetlands were assembled to identify the effects of habitat loss. Extensive characterizations of wetlands types were assembled over a 20-year span to determine how the wetlands have changed and where the loss is most severe.

In 1969, the U.S. Army Corps of Engineers brought together a blue ribbon panel of fish and wildlife biologists, botanists, estuarine ecologists, hydrologists, and water resources engineers from Federal, state, and local agencies. The panel attempted to determine the most favorable environmental conditions, including salinity levels, for fish and wildlife in Louisiana's wetland-estuarine complex.

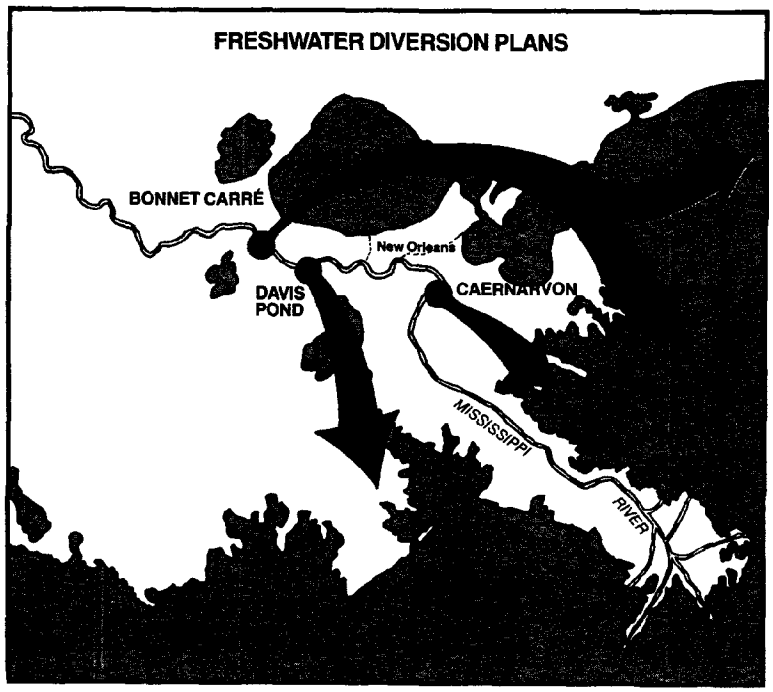
Over the years, the U.S. Army Corps of Engineers refined the salinity data and developed a plan to divert fresh Mississippi River water into the wetlands of southeast Louisiana at three sites. The U.S. Army Corps of Engineers now has the authority to construct two of the three freshwater diversion structures. One structure will be built at Caernarvon, Louisiana, and will divert fresh water into the wetlands in Breton Sound. The second diversion structure will be built at Davis Pond and will divert water into the Barataria Basin wetlands.

The U.S. Army Corps of Engineers has recommended approval of a plan to construct a third structure adjacent to the Bonnet Carré flood control spillway. Fresh water diverted at this point will retard saltwater intruding into the Lake Pontchartrain Basin and western Mississippi Sound and reduce wetland loss.

In 1971, the State of Louisiana formed the Advisory Commission on Coastal and Marine Resources to address coastal wetlands loss. The Commission developed draft legislation to demarcate the coastal zone and to establish the Louisiana Coastal Resources Program.

Local agencies in the most threatened coastal parishes as well as private interests have used some of this information to try to stop the worst of their wetland loss problems. Each of these efforts shed more light on the enormity of the problem and confirmed that a piecemeal approach could never be effective for long.

This essential research and planning has yielded a clearer understanding of the unique dynamics in the coastal area and identified three ways that can be used to approach the loss of the wetlands.




**Diverting fresh Mississippi River water into southeast Louisiana will retard saltwater intrusion, slow down marsh loss, and improve fish and wildlife productivity.**

## The Approaches

As a result of studies and research conducted by the State of Louisiana, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Environmental Protection Agency, the National Marine Fisheries Service, the Minerals Management Service, the Soil Conservation Service, the U.S. Geological Survey, and university research centers, three approaches have been singled out that could effectively reduce coastal wetland loss. Several agencies are now using these approaches.

***Wetland preservation to prevent further wetland loss.***

The *State of Louisiana* is planning to preserve wetlands by restoring and maintaining the barrier shores and islands and is sharing the costs of U.S. Army Corps of Engineers barrier island erosion studies.

The *U.S. Army Corps of Engineers,* in partnership with the *State of Louisiana,* will continue to develop freshwater diversion plans.

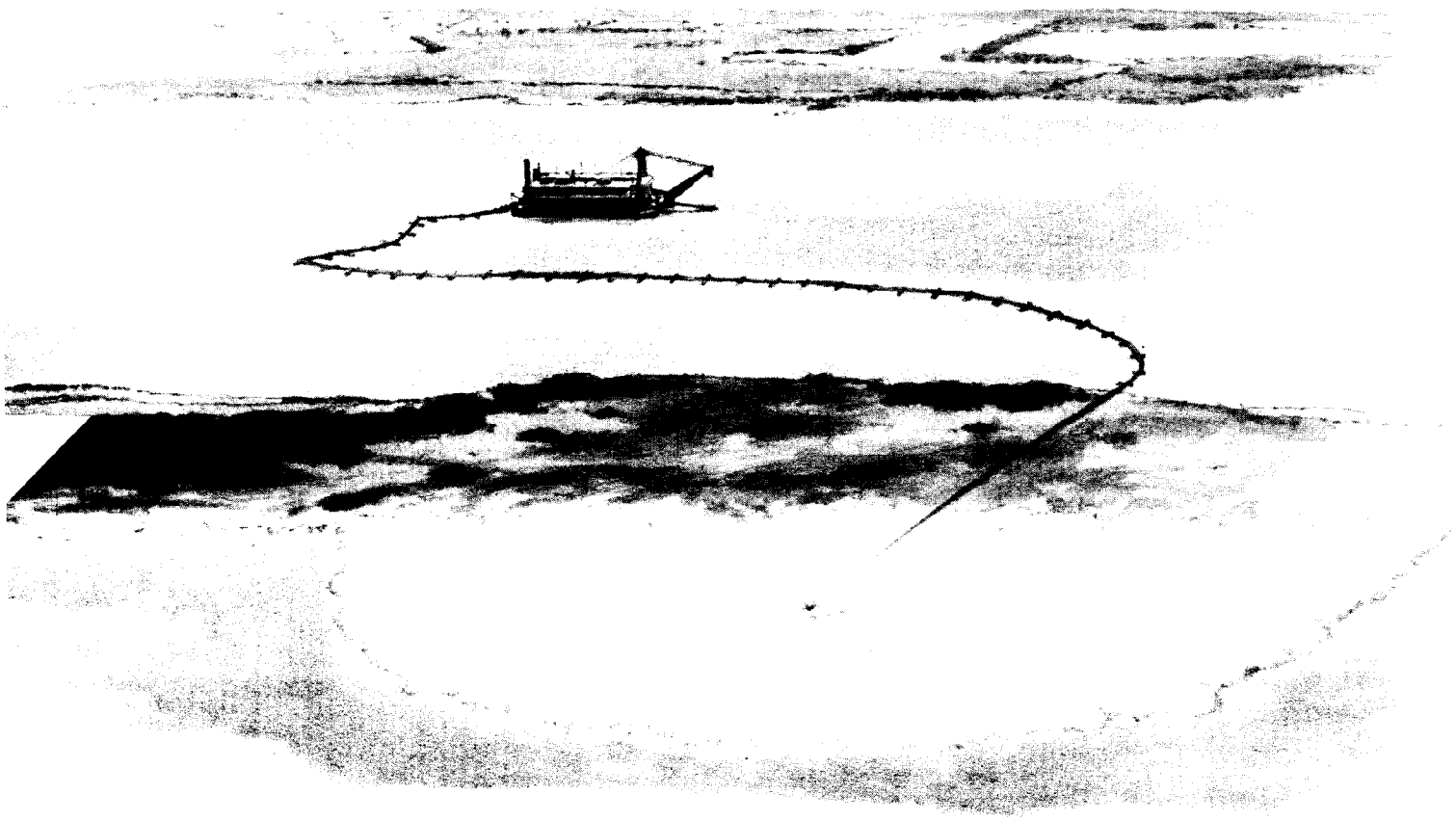
The *State of Louisiana,* the *Environmental Protection Agency,* the *U.S. Army Corps of Engineers,* and the *U.S. Department of Interior* are implementing the Atchafalaya Basin Plan, which presents another opportunity for wetland preservation by controlling floodwater flows into Atchafalaya Bay.

***Wetland creation to replace lost wetlands.***

The *State of Louisiana* has created marsh by diversion of sediment-laden waters through outlets in river banks and is sharing the costs of *U.S. Army Corps of Engineers* marsh creation studies.

The *U.S. Army Corps of Engineers* has created marsh by disposal of sediment dredged from navigation channels.

**The Corps dredges and maintains navigation on 2,800 miles of inland waterways in Louisiana. Where it's feasible, the Corps pumps the dredged sediment into open water areas so marsh can develop.**



The *U.S. Army Corps of Engineers* in cooperation with the *State of Louisiana*, the *Environmental Protection Agency*, the *U.S. Fish and Wildlife Service*, and the *National Marine Fisheries Service* is investigating alternatives to optimize wetland creation in Atchafalaya Bay.

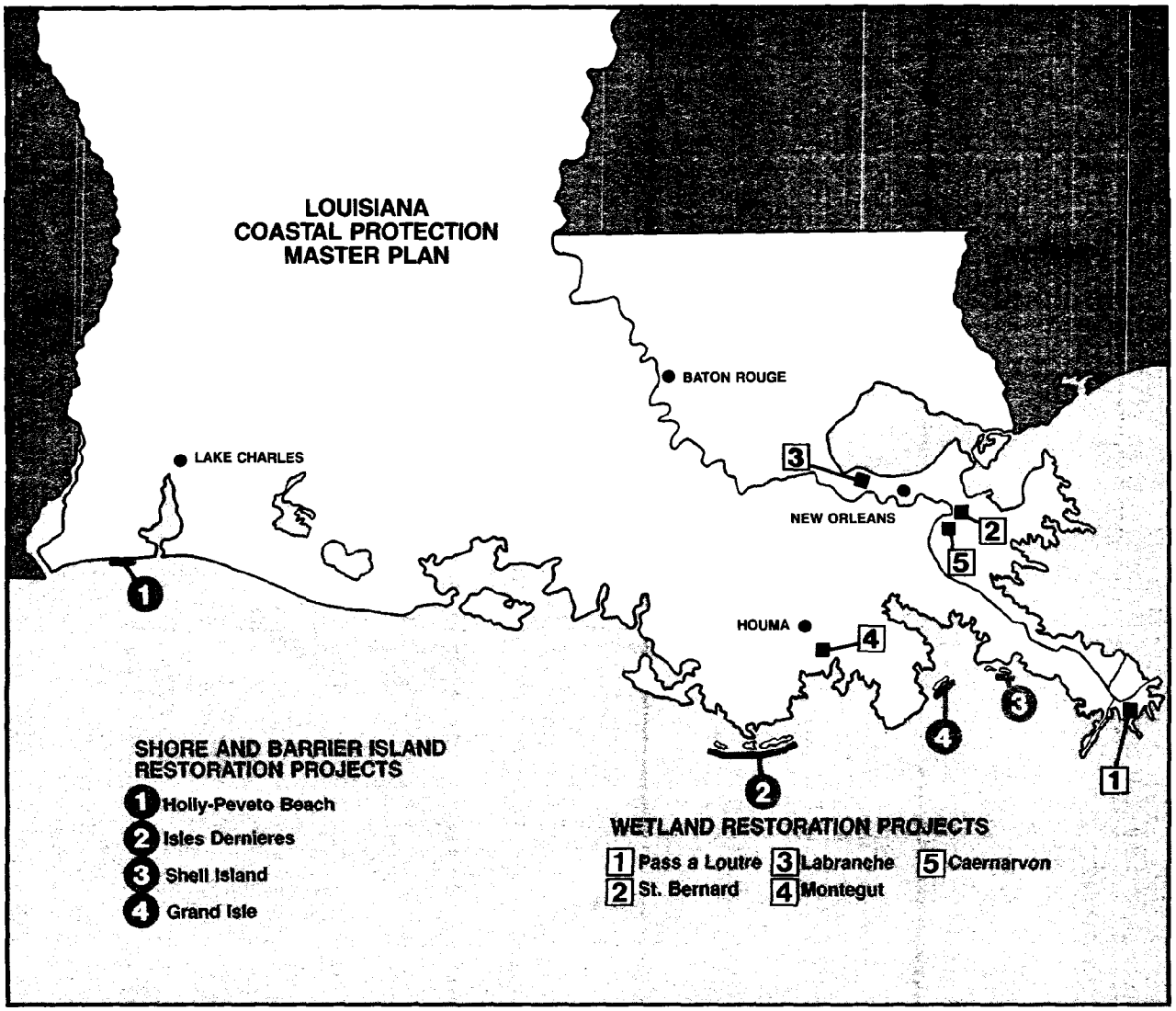
The *U.S. Soil Conservation Service* has created marsh by planting marsh vegetation on exposed soils.

***Wetland regulation to control development in coastal wetlands.***

The *State of Louisiana* administers the Louisiana Coastal Resources Program.

The *U.S. Army Corps of Engineers* administers the Department of the Army Regulatory Program.

The *Environmental Protection Agency* has developed guidelines for wetland regulation as part of the Clean Water Act. Together, the *Environmental Protection Agency* and the *U.S. Army Corps of Engineers* have a shared Federal responsibility for regulation of wetlands and other waters of the nation.




**The state's master plan brings together nine state and Federal projects and plans that deal with wetland loss problems.**

## An Action Strategy

There are no easy ways to deal with the complex, critical problem of wetland loss in Louisiana. Any attempt to address the problem will require a well-conceived strategy that uses the skills and abilities of the Federal, state, and local agencies and private interests active in coastal Louisiana.

Developing such a strategy will take time. But the loss of wetlands that happens every day on Louisiana's coast urgently demands that something be done right now, even while an overall strategy is being created. The answer is to deal with the problem of wetland loss on both an immediate and long-term basis.

### Louisiana Coastal Protection Master Plan

The State of Louisiana is developing a response that meets the most immediate threats to the wetlands and deals with the need for long-term action. The state has designated the response "The Louisiana Coastal Protection Master Plan." The master plan brings together nine projects and plans that were designed by state and Federal agencies to implement the three wetland loss approaches identified in earlier studies.

The plan has two phases. Phase 1 efforts will address restoring the wetlands protection function of the barrier shores and islands and encouraging wetland creation and growth. An overall long-term comprehensive coastal protection plan will be developed in this phase. In Phase 2, the focus will be on maintaining projects that were started in Phase 1 and implementing the comprehensive coastal plan. The Phase 1 projects will buy time for development and implementation of long-term action.

#### *Long-Term Action*

An integral part of the Louisiana Coastal Protection Master Plan is development of a long-term action plan. Two basic ingredients of this long-term action are already in place. First, the three most promising approaches to the problem of wetland loss have been determined: wetland preservation, wetland creation, and wetland regulation. Second, the Federal, state, and local agencies and private interests that have responsibilities in the coastal zone and their capabilities have been identified.

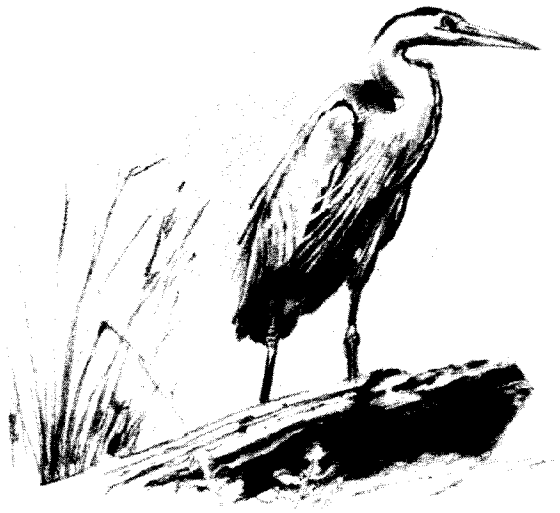
"State and Federal Activities in Coastal Louisiana" (page 12) shows the activities of the 11 state and Federal agencies with the greatest responsibilities in coastal Louisiana. Many parish and municipal agencies and private interests and industries have demonstrated potentially useful capabilities that will complement the state and Federal efforts in a comprehensive coastal plan.

The State of Louisiana has been working with all these Federal and local agencies and private interests in an effort to solve the wetland loss problem. Through the years, however, a partnership has existed between the state and the U.S. Army Corps of Engineers. This partnership has been strengthened in recent years as costs of studies and projects that address wetland loss have been shared.

The State of Louisiana continues to recognize and support the U.S. Army Corps of Engineers' Federal leadership role in any long-term plan for dealing with coastal wetland loss. This support was recently reaffirmed by the Governor of Louisiana in a letter to the New Orleans District Commander of the U.S. Army Corps of Engineers. In his letter the Governor stated,

> ***"... the Corps is uniquely qualified to join with the State as the lead Federal agency in the development of a comprehensive wetland restoration program. With assistance from other Federal and state agencies, the State and the Corps can work together to coordinate the development of a truly comprehensive program to restore and protect our diminishing coastal wetlands ... We request that the New Orleans District initiate a cooperative effort with the State to develop such a program."***

The next step for all these agencies, organizations, and groups active within coastal Louisiana is the development of a long-term comprehensive coastal plan.



# State and Federal Activities in Coastal Louisiana

## STATE OF LOUISIANA

The State of Louisiana, through the following activities, maintains a leadership role in the coastal wetlands.

- develops, coordinates, and implements the state's Coastal Protection Master Plan, which includes development of a Comprehensive Wetland Restoration Plan.
- administers the Louisiana Coastal Resources Program and water bottoms leasing programs for oysters and the dredging of shell, sand, gravel, and other fill material.
- performs public works functions of the state related to highways and bridges, surveying and mapping, soil conservation, reclamation, flood and drainage control, navigation, water supply, and other water resources development projects and studies.
- monitors water quality throughout coastal Louisiana.
- conducts fish, shellfish, and wildlife research and operates wildlife management areas, refuges, and sanctuaries.
- coordinates with Federal agencies to avoid, minimize, and mitigate damages to wetlands and living terrestrial, freshwater, and marine resources that result from Federally funded or permitted activities.
- funds scientific, economic, and technological research and shares in the cost of U.S. Army Corps of Engineers studies and projects addressing flood control, navigation, and the wetland loss problem.

**Louisiana Dept. of Environmental Quality**

**Louisiana Dept. of Natural Resources**

**Louisiana Dept. of Transportation & Development**

**Louisiana Dept. of Wildlife & Fisheries**

## Federal

**US Army Corps of Engineers**

Plans, constructs, and maintains navigation, flood control, shoreline protection, and wetland enhancement projects. Funds and conducts research in support of such projects. Administers the Dept. of the Army Wetlands Regulatory Program.

**U.S. MINERALS MANAGEMENT SERVICE**

Coordinates with Federal and state agencies to ensure that Federally-permitted activities are consistent with Louisiana's Coastal Resources Program. Studies potential impacts of Outer Continental Shelf activities and impacts of wetland management activities on coastal wetlands and associated fish and wildlife resources.

**U.S. FISH & WILDLIFE SERVICE**

Provides recommendations to Federal and state coastal permitting agencies and the private sector to conserve coastal wetlands and other important fish and wildlife resources. Manages extensive coastal wetlands in the Delta, Sabine, and Lacassine National Wildlife Refuges. Conducts research on coastal wetlands and associated fish and wildlife populations.

**U.S. NATIONAL MARINE FISHERIES SERVICE**

Coordinates with Federal and state agencies to avoid, minimize, and mitigate damages to wetlands that result from Federally funded or permitted activities. Conducts fisheries research and recommends measures directed toward the protection of coastal and marine habitats which support living marine resources. This research and these measures are used in planning and monitoring Federal projects.

**U.S. ENVIRONMENTAL PROTECTION AGENCY**

Coordinates with Federal and state agencies to avoid, minimize, and mitigate damages to wetlands that result from Federally funded or permitted activities. Regulates both the discharge of pollutants within coastal wetlands and waterways and the disposal of dredged and fill material gulfward of Louisiana territorial waters. Develops estuarine basin plans to enhance wetland habitats. Funds and conducts wetland and contaminant research.

**U.S. SOIL CONSERVATION SERVICE**

Has responsibility for detailed soil surveys that are the basis for marsh management plans. Conducts field trials of marsh plants to identify superior strains of plants for erosion control in the coastal zone. Works with local Soil and Water Conservation Districts to help landowners meet their objective of wetland resource use within regulatory constraints and guidelines. Provides interdisciplinary technical assistance to wetland landowners in developing multiple-use management plans.

**U.S. GEOLOGICAL SURVEY**

Principal Federal water-data agency. Collects and disseminates much of the water data currently used by numerous Federal, state, local, private, and other agencies to manage coastal resources. Conducts and shares in the cost of the collection of basic hydrologic data, interpretative studies, and research projects of water flow, subsidence, and sediment-transport processes within the coastal wetlands.

## The Comprehensive Coastal Plan

A comprehensive coastal plan for long-term, multi-faceted use of the wetlands will be the necessary action strategy. The plan must be built on the successes and experiences of the past.

To develop this plan, a framework must be established that will assure the involvement of the Federal, state, and local agencies and private industries and interests active in coastal Louisiana. Teamwork among these agencies and interests is essential to the success of the comprehensive plan. Capabilities and expertise of each organization need to be coordinated. Ways to use new techniques should be found and research needs identified. Cost-sharing responsibilities need to be established.

The comprehensive coastal plan will pull together all the resources available to use in the effort against wetland loss. The ultimate respurce will be a fully developed long-range comprehensive plan. Such a plan will involve a long-term partnership between the State of Louisiana, the U.S. Army Corps of Engineers, and other Federal and local agencies and private interests. The common goal of this partnership — this team effort — will be to more efficiently and effectively confront and resolve the national problem of wetland loss in Louisiana.

## Conclusion

### Changes Must Be Made

Many forces, both natural and human, have interacted to produce the serious wetland loss problem we face. Many plans are being proposed to deal with the forces of nature. However, the activities of humans must also be addressed.

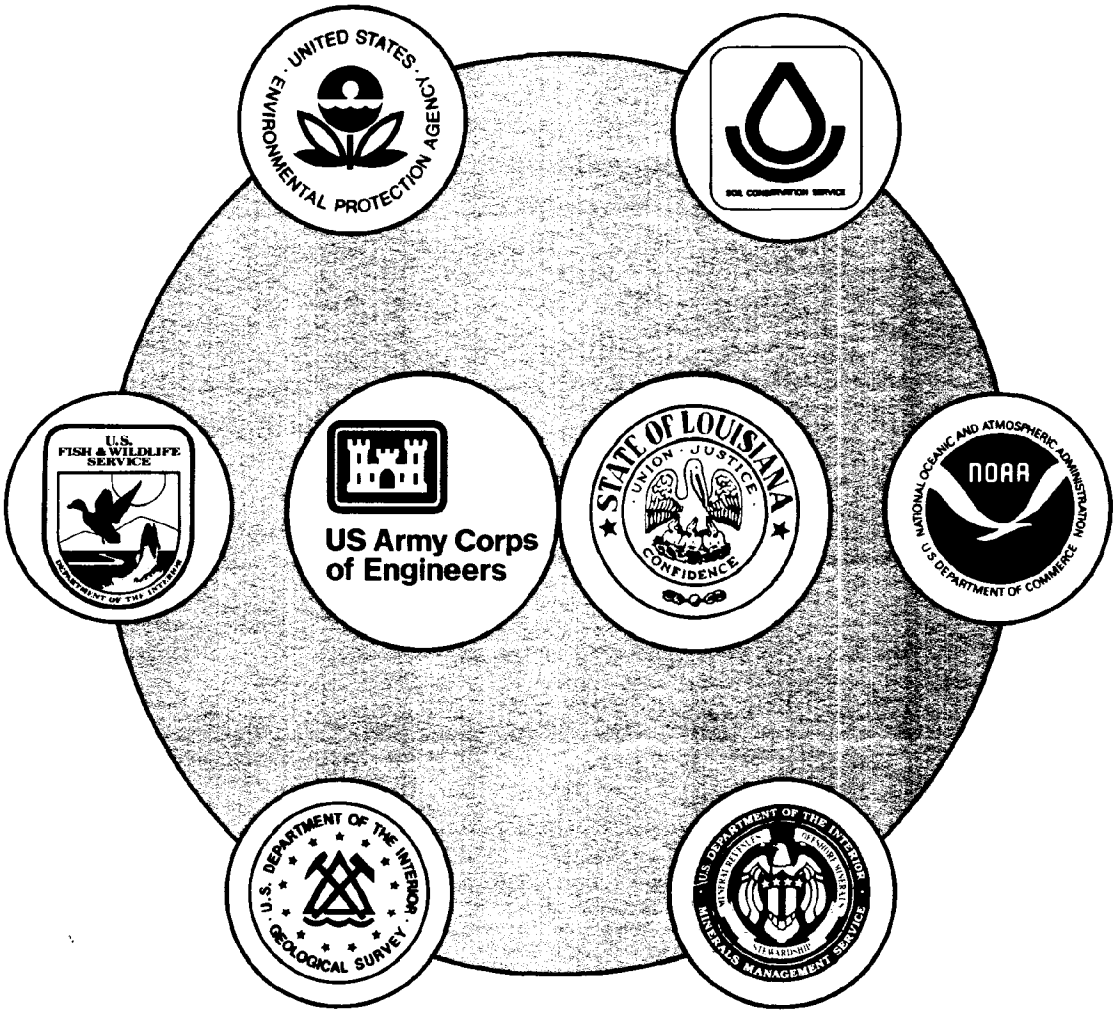
This human part of the wetland loss problem presents a major challenge. Federal, state, and local agencies and private interests have made a number of individual decisions between development and wetland preservation over the years. When taken together, these decisions have had a very damaging effect. Changes in such a decision process are required at all levels of government or wetland loss will continue.

Other human changes are also required: changes in outlook, changes in planning guidance, changes in institutional and fiscal procedures. Many of these changes will have to come from the agencies, task forces, and commissions involved in preserving and restoring the wetlands, as well as from Congress.

But some of the changes must come from the people — people who live in the coastal area — people who think eating Louisiana seafood is the closest thing to heaven — fishermen whose families depend on a continued harvest of that seafood for their livelihood — shippers whose businesses depend on the efficient, protected navigation channels through Louisiana's coastal area — people who know that Louisiana's wetlands are truly a "Sportsman's Paradise."

### What You Can Do

It's time now for you to make a commitment to restore and enhance Louisiana's coastal wetlands — one of the nation's most valuable renewable resources. A commitment to learn more about problems associated with wetland loss. A commitment to assist in developing and implementing plans. A commitment to support the agencies able to take action. This brochure is intended to give you the information to make that commitment.




# THE LOUISIANA COMPREHENSIVE COASTAL PLAN

**An action strategy to efficiently and effectively confront and resolve America's problem of devastating wetland loss in coastal Louisiana.**

The comprehensive coastal plan for Louisiana will involve a long-term partnership among the State of Louisiana, the U.S. Army Corps of Engineers, and these six Federal agencies. The plan will pull together the expertise and capabilities of Federal, state, and local agencies and private interests in a coordinated effort to address the critical wetland loss problem. Experiences and successes of the past will be the foundation of the plan. But the teamwork of those concerned about wetland loss — their cooperation and commitment — will be essential to development of the final working plan.

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